# Planning and Zoning Commission <br> Monday, January 24, 2022 at 6:00 pm <br> PLEASE SILENCE ALL CELL PHONES AND ELECTRONIC DEVICES. THANK YOU 

## 1. Meeting Information

To watch a live stream of the meeting
The information for the Town's virtual meeting can be found below:
https://us02web.zoom.us/j/84829003205

Meeting ID: 84829003205

Passcode: 395526

One tap mobile
+13462487799

## 2. Call to Order

Chair
a. Roll Call
3. Approval of Agenda

Chair

## Public Comments on Items Not on the Agenda

The Planning and Zoning Commission welcomes you. Thank you for joining us virtually for our Town of Bennett Planning and Zoning Commission Meeting. If you are not speaking, we ask that you please mute your microphone. For public comment please sign up in the chat box. If you are on the phone, once we get through the chat box we will call for any other comments for items not on the agenda.

Your comments will be limited to three (3) minutes. The Commission may not respond to your comments this evening, rather they may take your comments and suggestions under advisement and provide direction to the appropriate member of Town Staff for follow-up. Thank you.

## Regular Business

## 4. Public Hearing

a. Case No. 21.15 Brunner Subdivision Final Plat

Resolution No. 2022-01- A Resolution Recommending Approval of the Final Plat for the Brunner
Subdivision
Steve Hebert, Planning and Economic Development Manager

Attachments:

- Public Hearing Script (0_-_Public_Hearing_Script.PC.pdf)
- Staff Report Brunner Subdivision Final Plat (_-1_-_Brunner_FP_CaseNo. 2 1.15_P_Z_StaffReportFINAL.pdf)
- PowerPoint Presentation Brunner Subdivision Final Plat (1_-_PowerPoi nt_Presentation_Brunner_FinalPlat_P_Z_01_24_22.pdf)
- Land Use Application (2_-_Final_Plat_Land_Use_Application.pdf)
- Letter of Intent/Narrative (3_-_Final_Plat_and_Site_Plan_-_Intent_Letter.pdf )
- Brunner Subdivision Final Plat (4_-_Brunner_Subdivision_Final_Plat.pdf)
- Combined Staff and Referral Agency Comments (5_-_BRUNNER_FINAL_P LAT_InitialReferralResponses_Combined.pdf)
- Traffic Study (6_-_Traffic_Study.pdf)
- Resolution No. 2022-01- A Resolution Recommending Approval of th e Final Plat for the Brunner Subdivision (7-Resolution_2022-01_Brunner_ Subdivision_FP.PCReso_2022-01.pdf)
- Suggested Motion (suggested_motion.pdf)
b. Case No. 21.21 300 Bennett Avenue Townhome Subdivision Final Plat

Resolution No. 2022-02 - A Resolution Recommending Approval of a Final Plat for Bennett Townhome Subdivision
Steve Hebert, Planning and Economic Development Manager

## Attachments:

- Public Hearing Script (0_-_Public_Hearing_Script.PC.pdf)
- Staff Report 300 Bennett Avenue Townhome Subdivision Final Plat (1_-_Staff_Report_BennettAve_Townhome_FP_CaseNo.21.21_P_Z_StaffReport FINAL.pdf)
- PowerPoint Presentation 300 Bennett Avenue Townhome Subdivisio n Final Plat (1_-_PowerPoint_Presentation_Bennett_Ave_Townhome_FinalPla t_P_Z_01_24_22.pdf)
- Land Use Application (2_-_Land_Use_Application_Form.pdf)
- Letter of Intent/Narrative (3_-_Letter_of_Intent.pdf)
- 300 Bennett Avenue Townhome Final Plat (4_-_Bennett_Final_Plat_21-11 6_2021-12-27.PDF)
- Combined Staff and Referral Agency Comments (5_-_300_Bennett_Ave_ FinalPlat_ReferralCommentsCombined.pdf)
- Traffic Study (6_-_Traffic_Study.pdf)
- Resolution No. 2022-02 - A Resolution Recommending Approval of a Final Plat for Bennett Townhome Subdivision (7_-_Reso_No._2022-02_B
ennettTownhomeSubdivision_FP.pdf)
- Suggested Motion (suggested_motion.pdf)
c. Case No. 21.26 Bennett Ranch Filing No. 2 Final Plat

Resolution No. 2022-03 - A Resolution Recommending Approval of a Final Plat for Bennett Ranch Filing No. 2
Steve Hebert, Planning and Economic Development Manager

## Attachments:

- Public Hearing Script (0_-_Public_Hearing_Script.PC.pdf)
- Staff Report Bennett Ranch Filing No. 2 Final Plat (1_-_Staff_Report_Be nnettRanch_Filing2_FP_CaseNo.21.26_P_Z_StaffReportFINAL.pdf)
- PowerPoint Presentation Bennett Ranch Filing No. 2 Final Plat (2_-_B ennettRanch_Filing_2_FinalPlat_P_Z_Presentation_01_24_22.pdf)
- Land Use Application (2_-_Bennett_Ranch_-_Northern_Townhomes_-_Land_ Use_Application.pdf)
- Letter of Intent/Narrative (3_-_Bennett_Ranch_-_Northern_Townhomes_-_L etter_of_Intent.pdf)
- Bennett Ranch Filing No. 2 Final Plat (4_-_Bennett_Ranch_-_Northern_To wnhomes_-_Final_Plat_-_2nd_Submittal.pdf)
- Combined Staff and Referral Agency Comments (5_-_Bennett_Ranch_Fil ing2_ReferralResposes_Combined.pdf)
- Traffic Study (6_-_Bennett_Ranch_-_Traffic_Impact_Analysis.pdf)
- Resolution No. 2022-03 - A Resolution Recommending Approval of a Final Plat for Bennett Ranch Filing No. 2 (7_-_Reso._No._2022-03_Benne ttRanch_Filing2_FP.PC.pdf)
- Suggested Motion (suggested_motion.pdf)
d. Chapter 16 Amendment of the Bennett Municipal Code Concerning Fair Contributions for Public School Sites
Resolution No. 2022-04 - A Resolution Recommending Approval of an Ordinance Amending Chapter 16 of the Bennett Municipal Code Concerning Fair Contributions for Public School Sites Steve Hebert, Planning and Economic Development Manager


## Attachments:

- Public Hearing Script (0_-_Public_Hearing_Script.pdf)
- Staff Report Amending Chapter 16 of the Bennett Municipal Code Co ncerning Air Contributions for Public School Sites (1_-_PC_Staff_Report_ -_School_Dedication_Ord.pdf)
- PowerPoint Presentation Amending Chapter 16 of the Bennett Munic ipal Code Concerning Air Contributions for Public School Sites (2_-_Po werPoint_Presentation_Chapter_16_School_Land_P_Z_Hearing.pdf)
- Approved Intergovernmental Agreement (IGA) Concerning Land Dedi cations or Payments in Lieu for School Purposes (3_-_IGA_Land_Dedicat ion_or_In-Lieu_Payment_Bennett.pdf)
- Ordinance No. 735-22 - An Ordinance Amending Chapter 16 of the B ennett Municipal Code Concerning Fair Contributions for Public Scho ol Sites (4_-_Ordinance_No._735-22_-_Fair_Contribution_School_Site.pdf)
- Resolution No. 2022-04 - A Resolution Recommending Approval of a
n Ordinance Amending Chapter 16 of the Bennett Municipal Code Co ncerning Fair Contributions for Public School Sites (5_-_Resolution_No. _-_School_Dedication.pdf)
- Suggested Motion (6_-_suggested_motion.pdf)

5. Commissioner Comments/Reports
6. Adjournment

## QUASI-JUDICIAL PUBLIC HEARING SCRIPT (PLANNING COMMISSION)

CHAIR: I will now open the public hearing on the following application: An application for Case No. 21.15 Brunner Subdivision Final Plat.

The purpose of the hearing is to provide a public forum for all interested parties who wish to comment on an application before the Commission. If you wish to speak please write your name and address in the chat box and you will be called on.

The Procedure for the public hearing will be as follows:
FIRST, there will be a presentation by the Town staff.
NEXT, we will have a presentation by the applicant.
After these two presentations we will allow people who signed up to speak for up to 3 minutes each. Please DO NOT REPEAT points made by others. It is fine to say, "I agree with the previous speaker's comments". Please direct your comments to the Commission, not the applicant or Town staff.

After receiving public comments, we will allow the applicant an opportunity to respond.
NEXT, the Planning Commission members may ask questions of anyone who testified.
I will then close the public hearing and no further testimony or other evidence will be received. The Planning Commission will discuss the matter and may take some kind of action.

Public hearings are recorded for the public record. All testimony must be presented, after you give your full name and address.

CHAIR: Do we have proper notification?
[Town Clerk to confirm on record notice has been provided]
Do any Commission members have any disclosures?
[Commissioners to disclose conflicts of interests, ex parte contacts, etc]
Town staff, please introduce the applicant and provide your staff report.

## [Staff presentation]

Will the applicant or the applicant's representative present the application?

## [Applicant presentation]

Do any of the Commissioners have questions of the applicant or Town staff?

## [Question and Answer]

CHAIR: I will now open the public comment portion of the public hearing. For those wishing to speak, please clearly state your name and address for the record.

Has anyone signed up to speak at this public hearing?

## [lf more than one person has signed in, call them in order.]

Is there any interested party in the audience that has not signed up but who wishes to speak regarding the application?

## [Additional public comment]

If there is no more public comment, I will now close the public comment portion of the public hearing.
CHAIR: Does the applicant wish to respond to any of the comments?

## [Opportunity for applicant to provide any rebuttal evidence]

CHAIR: Before we turn to Commissioner questions and deliberation, I want to state that the documents included within the record for this public hearing include all application materials submitted by the applicant; all materials included in the Planning Commission packets; any PowerPoint or other presentations given tonight; all written referral and public comments received regarding the application; the public comment sign-up sheet; the public posting log and photographs of the notice, and the Town's subdivision and zoning ordinances and other applicable regulations. Does anyone have any objection to inclusion of these items in the record?

CHAIR: I will now close the public hearing and the Planning Commission members will deliberate on the evidence presented. During deliberations, Commission members may ask questions of Town staff, but no further public comment or other testimony or evidence will be received.

Who would like to begin?
Who is next?
Any other questions or comments
[If anyone believes the applicable criteria have not been met, then please explain why so we have those reasons for the record.]

CHAIR: We have a draft Resolution in front of us and I would entertain a motion.
We have a motion on the floor by Commissioner $\qquad$ and a second by Commissioner $\qquad$ to approve Planning and Zoning Commission Resolution No. 2022-01.

May we have a Roll-Call vote?
Motion carries/fails.
welcome neighbors.

TO: Members of the Planning and Zoning Commission
FROM: Steve Hebert, Planning and Economic Development Manager
DATE: January 24, 2022
SUBJECT: Case No. 21.15 - Brunner Subdivision Final Plat
Owner/Representative(s): Debra and Eric Brunner/MGV 36 South Land Investments, LLC; John Vitella, Karen Henry

Location: 45900 Highway 36, Immediately East of D R Horton's SkyView Subdivision
Purpose: Final Plat for 87 Single-family Detached Lots

## Background

Case No. 21.15 is a proposed final plat for 87 single-family detached lots on 20.17 acres. The property is located on the south side of US Highway 36/East Colfax Avenue, just east of the SkyView subdivision. The property is zoned R-2 - Mid-Density Residential. The Planning and Zoning Commission reviewed a sketch plan for the project on November 16, 2020.

The map below shows the Brunner property in relation to the surrounding properties.



Looking Southwest from Colfax


Looking Southeast from Colfax

## Proposed Lot Layout

The map below shows the proposed lot layout and street configuration.


Access to the subdivision will be via East Colfax Avenue to the north and a second access to the south via a new Lark Sparrow Way into the Muegge Farms planning area, with a connection west to Penrith Road and east to S. $1^{\text {st }}$ Street. An approximate one-acre tract is reserved in the middle of the subdivision for a future park.

See the final plat document in the packet for more details on lot, tract, right-of-way and easement locations and dimensions.

## Zoning and Land Use Regulations

The map and table below show the zoning of the surrounding area, including a mix of $R-1, R-2, A, A-3, P D$ and $P$ zone districts.


| Direction | Zone District | Current Land Use |
| :--- | :--- | :--- |
| North | A-3 in Adams County | Agricultural |
| East | A, R-1 and P | Residential and Community Center |
| South | PD - Muegge Farms Residential | Vacant |
| West | A-3 in Adams County | Agricultural |

The table below summarizes the minimum and maximum standards in the R-2 zone district and how the proposed subdivision plat compares. Most of the standards will be enforced at the time of site plan and building permit.

| Standard | R-2 Zone District | Proposed |
| :--- | ---: | ---: |
| Min. Lot Area/Dwelling Unit | $3,500 \mathrm{sq} . \mathrm{ft}$. | $5,000 \mathrm{sq} . \mathrm{ft}$. |
| Min. Lot Width | 25 ft | 50 ft |
| Max. Lot Coverage | $70 \%$ | TBD |
| Minimum Front Yard Setback <br> (Principal Structure) | 10 ft. | TBD |
| Min. Side Yard Setback (Principal <br> Structure) | 5 ft. | TBD |
| Min. Rear Yard Setback (Principal <br> Structure) | 10 ft. | TBD |
| Maximum Height (Principal <br> Structure) | 35 ft. | TBD |

## Water

Water service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Sanitary Sewer

Sanitary sewer service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Stormwater Management

Stormwater will be accommodated by a regional stormwater system, including an infiltration pond off-site in the Muegge Farms development. See the Town Engineer's memorandum.

## Access and Traffic

Access to the north is via East Colfax Avenue with a right-in/right-out main entry. Access to the south will be via a new street, Lark Sparrow Way, which will connect to Civic Center Drive and other streets in Muegge Farms development. See comments below regarding the proposed access.

## Fire and Rescue

Bennett-Watkins Fire Rescue will provide service. The applicant should meet directly with BWFR directly to review specific site and building plans to assure conformance with International Fire Code standards. See the fire district's response.

## Gas, Electricity and Telecommunications

Natural gas will be provided by Colorado Natural Gas, electricity by CORE Electric Cooperative and telecommunications by Eastern Slope Technologies (ESRTA) or Comcast.

## Public Land Dedication Requirements

## Park Land and Public Facilities

The Municipal Code requires ten percent (10\%) of the total land area contained within the subdivision to be dedicated to the Town for park land and other public facilities. Given the size of the subdivision, the public land dedication requirement is 2 acres. The approximate 1 -acre park (Tract G) and the 0.1 -acre pedestrian tract (Tract F) will be given credit. The remaining 0.9-acre dedication can be satisfied by cash-in-lieu at the time of the first building permit, or as outlined in the future subdivision agreement (SA).

## Bennett School District 29J

The Bennett School District 29J has requested cash-in-lieu of land dedication, which will be payable pursuant to the Town of Bennett/School District IGA and the municipal code in effect at the time of building permit issuance or subdivision agreement.

## Staff Analysis and Findings

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:
A. The final plat incorporates recommended changes, modifications and conditions attached to the sketch plan unless otherwise approved by the Planning Commission.

Staff Finding: The Final Plat is consistent with the previous sketch plan reviewed by the Planning and Zoning Commission in November 2020.
B. All applicable technical standards in accordance with this Chapter and adopted Town documents have been met.

1. To establish appropriate standards for subdivision design that will:
a. Encourage the development of sound, economical and stable neighborhoods and healthy living environments, in conformance with the goals and policies of the Comprehensive Plan.
b. Provide lots of adequate size, configuration and design for the purpose for which they are intended to be used.
c. Promote superior design and design flexibility.
d. Preserve the significant natural features and environmental quality of the Town.
e. Guide the physical development of the Town in ways that complement the Town's character and culture.
f. Promote a cohesive sense of community among new and current residents, precluding neighborhood design or restrictions that in any way isolate any neighborhood from the rest of the community.
g. Provide complete and accurate public land records.

Staff Finding: The proposed final plat will accommodate new development that meets the standards of good subdivision design. Tracts I and J, currently Town of Bennett right-of-way, shall be vacated given they have no reasonable future use for the Town. See comments below regarding access.
2. To establish standards for utilities and other public services that will:
a. Provide an efficient, adequate and economical supply of utilities and services to the land proposed for development without adverse effects to property that is currently served.
b. Ensure that adequate stormwater drainage, sewage disposal, water supply and other utilities, services and improvements needed as a consequence of the subdivision of the land are provided.
c. Provide for the reasonable extension of utilities and services to other lands that may be developed in the future.
d. Provide the equitable distribution of the cost of new and expanded public services needed to support new land development.

Staff Finding: The proposed final plat, future subdivision agreement and construction documents will accommodate the extension of utilities and public services to serve the new residential neighborhood.
3. To ensure the provision of adequate and safe traffic circulation that will:
a. Minimize traffic hazards through appropriate street design, providing safe and convenient vehicular and pedestrian traffic circulation systems.
b. Provide adequate vehicular access to abutting properties.
c. Provide streets of adequate capacity and appropriate design and function.

Staff Finding: Because the north access to East Colfax Avenue will be restricted to right-in/rightout (RI/RO, staff believes a convenient access to the south is necessary before the first home is occupied. Residents wanting to go westbound on East Colfax Avenue will not be able to use the neighborhood's north entry. Likewise, residents going westbound on East Colfax will not be able to turn south into the subdivision. These restrictions and inconveniences make a safe and convenient access to the south, either to Civic Center Drive and then west to Penrith, or to Civic Center Drive and east to $S$. $1^{\text {st }}$ Street essential when the first homes are occupied. Staff continues to work with the applicant on an acceptable solution and has included a condition of approval in the proposed resolution.
4. To ensure adequate public facilities that will:
a. Provide for the recreational, cultural, educational and other public facility needs of the community.
b. Facilitate effective law enforcement and fire protection.

Staff Finding: The applicant will be required to pay cash-in-lieu of school land dedication, as well as the standard Town impact fees for public facilities. The proposed final plat provides a series of internal and external sidewalks that accommodate pedestrian connections to the neighborhood and the surrounding community.
5. To contribute to the proper development of the community in accordance with the goals and policies of the Comprehensive Plan as it may be updated from time to time.

Staff Finding: The proposed plat is consistent with the principles in the 2021 Town of Bennett Comprehensive Plan related to:

- Mixed land uses
- Access to healthy living
- Access to open space, trails and parks
- Contiguous development
- A variety of transportation choices
C. Compliance with Zoning Regulations

Staff Finding: All lots meet the standards in R-2 - Mid-Density Residential District, as noted above.

Referral Agency Review and Comments

The proposed Brunner Subdivision Final Plat was sent to several referral agencies for comment, including:

1. Town Planning
2. Town Engineer
3. Town Traffic Engineer
4. Town Attorney
5. Bennett-Watkins Fire Rescue (BWFR)
6. CORE Electric Cooperative (IREA)
7. Colorado Natural Gas (CNG)
8. Colorado Department of Transportation (CDOT)
9. Bennett School District 29J

Each of the agencies had comments or recommendations that are either reflected on the final plat document or will be addressed at later stages of the review process such as the site plan or building permit. General cleanup of the document to include all agency comments will be completed before recording.

## Public Comment

Notice of the January 24, 2022 Planning and Zoning Commission hearing and the February 8, 2022 Board of Trustees hearing was published in the Eastern Colorado News, posted on the subject property and sent to all property owners within 300 feet of the property. No comments, other than those from the referral agencies, have been received to date.

Staff finds the proposed final plat is in compliance with the Subdivision Regulations in Chapter 16, Article IV of the Bennett Municipal Code. Staff also finds the plat has been processed according to Section 16-4-360 and meets the approval criteria in 16-4-380. Based upon these findings, staff recommends the Planning and Zoning Commission recommend to the Board of Trustees approval of Case No. 21.15 - Brunner Subdivision Final Plat, with the following conditions:

1. The subdivision agreement shall include a provision committing the subdivider to build and maintain a second access to the south from the subdivision, in a time, place and manner acceptable to the Town.
2. The equivalent value of 0.9 acres of land shall be provided as cash-in-lieu and addressed in the subdivision agreement.
3. The plat should be amended to reflect Tracts I and J are to be vacated and owned and maintained by the metropolitan district or the homeowner's association.
4. Before recording the plat, the applicant shall update plat notes related to tracts, easements and maintenance in a manner directed by the Town Engineer and make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## Attachments

1. Staff PowerPoint Presentation (PDF)
2. Land Use Application
3. Letter of Intent/Narrative
4. Brunner Subdivision Final Plat
5. Combined Staff and Referral Agency Comments
6. Traffic Study
7. Proposed Resolution 2022-01

# Brunner Subdivision Final Plat 

Planning and Zoning Commission

$$
\text { January 24, } 2022
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Steve Hebert, Planning \& Economic Development Manager

## Proposed Brunner Subdivision Final Plat

- 20.17 Acres
- Zoned R-2 - Mid-Density Residential
- Subdivide to create 87 singlefamily detached lots
- Minimum lot size in R-2 is 3,500 sq. ft., proposed is 5,000 sq. ft.
- Minimum lot width is 25 ft ., proposed is 50 ft .




## Availability of Public Infrastructure

- Access - East Colfax Avenue, new local streets
- Water and Sewer - Town of Bennett
- Stormwater - Off-site conveyance to regional system
- Fire Protection - Bennett-Watkins Fire Rescue
- Law Enforcement - Adams County Sheriff
- Electricity - IREA
- Natural Gas - Colorado Natural Gas
- Telecom - Eastern Slope Technologies or Comcast
- Bennett School District - Cash-in-lieu


## Staff Findings on Case No. 21.15

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:

- Generally consistent with the Sketch Plan, with updates and improvements.
- All applicable technical standards in accordance with the Subdivision Regulations and adopted Town documents will be met.
- The proposed lot configuration will accommodate new development that meets the standards of good subdivision design, subject to improved vehicular access.
- The final plat document will accommodate extension of utilities and public services to serve future development.
- Public facilities include an improved park and trails.
- All lots meet the standards of R-2 - Mid-Density Residential District.


## Staff Recommendation

Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-01 recommending approval of the Brunner Subdivision Final Plat, with the following conditions:

1. The subdivision agreement shall include a provision committing the subdivider to build and maintain a second access to the south from the subdivision, in a time, location and manner acceptable to the Town.
2. The equivalent value of 0.9 acres of land shall be provided as cash-in-lieu and addressed in the subdivision agreement.
3. The plat should be amended to reflect Tracts I and J are to be vacated and owned and maintained by the metropolitan district or the homeowner's' association.
4. Before recording the plat, the applicant shall update plat notes related to tracts, easements and maintenance in a manner directed by the Town Engineer and make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

| Town of Bennett Land Use Application Form |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| ApplicationType: Final Plat Other |  |  |  |
| Primary Contact Name: John Vitella / Karen Henry |  |  |  |
| Name of Firm: MGV 36 South Land Investments, LLC /Henry Design Group, Inc. |  |  |  |
| Address: PO Box 4701 /1501 Wazee Street, Suite 1-C, Denver, CO 80202 303-446-2368 |  |  |  |
| City: Greenwood Village State: CO Zip:80155 Phone:303-210-4964 <br> Email: john@ vitellapartners.com / khenry@ henrydesigngroup.com   |  |  |  |
|  |  |  |  |
| Owner Name: Debra K and Eric W. Brunner |  |  |  |
| Address: 45900 Highway 36 |  |  |  |
| City:Bennett | State: CO | Zip: 80102 | Phone: |
| Email: |  |  |  |
| Mineral Estate Holder/Lease:See Attached |  |  |  |
| Name of Firm: |  |  |  |
| Address: |  |  |  |
| City: | State: | Zip: | Phone: |
| Parcel\#: 181528300002 Subdivision Name: |  |  |  |
| Site Address: 45900 Highway 36 |  |  |  |
| Nearest Major Intersection: Highway 36 and McKinley Drive |  |  |  |
| Legal Description: SE $1 / 4$ of the SW $1 / 4$ Section 28, Township 3 South, Range 63 West of the 6th PM |  |  |  |
| Current Zoning: R-2 |  | Propose |  |
| Total Acreage: 20.17 |  | Gross Flo |  |
| Proposed Gross Densities (du/ac): 4.31 DU/Ac |  |  |  |
| Additional Notes: |  |  |  |

All Submittal Requirements must accompany this application. All applicable fees must be paid at the time of application. Any extraordinary cost incurred by the Town of Bennett in reviewing and processing this application is the responsibility of the applicant.

An executed cost agreement must be attached to this application pursuant to Sec. 16-1-325 of the Bennett Municipal Code.

I understand this is an application only, it must be approved by the Town, and any required building permits must be obtained before the property can be used in accordance with the request. I hereby acknowledge all of the above information is correct.


## Major Subdivision Final Plat Submittal Requirements

(Town of Bennett|Revised February, 2021)
The following elements constitute an acceptable Final Plat. An application is not considered submitted until all items are included in the application. (Note that depending on the size, scale and complexity of a proposal, some of the requirements below may be waived by Town Staff.)

## APPLICATION DOCUMENTS



Case No.: $\qquad$

## APPLICATION FEES

| X | 1. Engineering: <5 acres $\$ 3,500 ; 5-25$ acres $\$ 4,000 ;>25$ acres $\$ 4,500$ |  | \$4,000.00 |
| :---: | :---: | :---: | :---: |
|  | 2. Attorney: $<5$ acres $\$ 2,000 ; 5-25$ acres $\$ 2,000 ;>25$ acres $\$ 2,500$ |  | \$2,000.00 |
|  | 3. Traffic Engineer: $<5$ acres $\$ 3,520 ; 5-25$ acres $\$ 3,520 ;>25$ acres $\$ 3,520$ |  | \$3,520.00 |
|  | 4. Other: e.g. Water Engineer Review, Special Utility Review, Landscape Architect Review: \$215 |  | \$215.00 |
|  |  | Subtota | \$ 9735.00 |
| X | 5. Town Administration/Planning: $20 \%$ of totalamount |  | \$ 1947.00 |
| X | (Additional fees may be required, depending on the number of resubmittals or changes by applicant. Additional fees will be required for Subdivision Agreement and Construction Plan Review) | Total | 11,682.00 |
| X | Recording fees will also be required when the final documents are recorded with Adams or Arapahoe County. (See below) |  |  |
| FINAL PLAT DOCUMENT - GENERAL REQUIREMENTS |  |  |  |


| X | X | All sheets shall be shall be prepared in $\mathbf{1 8}^{\prime \prime} \times \mathbf{2 4 \prime \prime}$ format if in Adams County or $\mathbf{2 4 \prime \prime}$ X $\mathbf{3 6 \prime \prime}$ format if in Arapahoe County, with the long dimension horizontal. All lettering shall be by mechanical means in a San Serif style, all capitalized and shall be a minimum size of one-tenth of an inch ( $1 / 10^{\prime \prime}$ ), 10 pt or equivalent. |
| :---: | :---: | :---: |
| X | X | Margin requirements: a minimum two-inch margin on the left side and minimum one-half inch margins at the top, bottom and right sides of the document. |
| X | X | An information block shall be located in the lower right-hand corner or along the right-hand margin of the sheet and shall include the date of preparation and revisions, including a north arrow; the scale used, including a graphic scale; sheet title, and preparer's name, address and phone number. |

## COVER SHEET

| X | - Title Block at the top center of the plat shall contain the following information: <br> (Insert Name of) SUBDIVISION (and Filing No. if Applicable) <br> FINAL PLAT |
| :--- | :--- | :--- |
| (Subtitle identifying the section, township and range information) |  |


| X | X | This title block shall be continued on each subsequent sheet of the document. The name shall not duplicate the name of any existing subdivision or development application in the Town of Bennett, Adams or Arapahoe Counties. |
| :---: | :---: | :---: |
| X | X | - Purpose Statement - A brief but descriptive explanation of all purposes for the Subdivision Plat |
| X | X | - Legal Description - Metes and bounds legal description of the property |
| X | X | - Ownership Certificate and Dedication Statements |
| X | X | - Vicinity Map |
| X | $X$ | - Composite Map - For plats that depict property on more than one sheet, an overall depiction of the Subdivision shall be included after the cover sheet. |
| X | X | - Required General Notes e.g. Easement Statement, Stormwater Facilities Statement, etc. |
| X | X | - Plat Notes Specific to Subdivision - TBD |
| X | X | - Surveyor's Statement |
| X | X | - Town Approval Signature Blocks |
| X | X | - Clerk and Recorder's Acceptance Block |
| X | x | - Case Number TBD |
| X | X | - Preparation Information and Dates |
| X | X | - Index of Sheets |
| X | X | - Land Use Table - shall include as applicable: Net and Gross Acreage, Net and Gross Density, Number of Lots and Tracts, Smallest Lot, Largest Lot, Average Lot Size, Number of Buildable Lots and Associated Land Use, Net Acreage for Public Streets. If there is not enough room on the cover sheet, place on the second sheet. |
| X | X | - Tract Summary Table indicating the use, ownership and maintenance of each tract. If there is not enough room on the cover sheet, place on the second sheet. |
| SUBDIVISION PLAT SHEET(S) |  |  |
| X | X | Boundary Lines - The subdivision boundary will be clearly distinguishable from other map lines by use of a distinct line type and/or thickness. All lines will be labeled with a complete bearing and distance, and all curves will be labeled with a central angle (delta), radius and arc length. Radial bearings and/or chord bearings will be provided for all nontangent curves. All dimensions to be determined by accurate field survey which must balance and close within limit of one in five thousand $(5,000)$. Show adjacent and/or intersecting plat/deed lines and label appropriately to include recording information (book and page and/or reception number). |
| X | X | Streets: All street rights of way defined by the plat will be clearly distinguishable from other map lines by use of a distinct line type and/or thickness. All lines will be labeled with a complete bearing and distance, and all curves will be labeled with a central angle (delta), radius and arc length. Radial bearings and/or chord bearings will be provided for all nontangent curves. Widths shall be labeled from each right-of-way line normal to the corresponding street center line. All street center lines defined by the plat will be clearly distinguishable from other map lines by use of distinct line type and/or thickness. All lines will be labeled with a complete bearing and distance and all curves will be labeled with a central angle (delta), radius and arc length. Radial bearings and/or chord bearings will be provided for all nontangent curves. The plat shall show the right-of-way lines, widths, locations and street names of all existing and proposed public or private streets: <br> 1. Within the proposed subdivision, and <br> 2. Immediately abutting the proposed subdivision, and <br> 3. Any private street shall include the designation "(Private)" immediately following street name; any other private right of way that is not named shall include the designation "(Private)" in a manner that clearly conveys such a status. |
| X | X | Easements: All easements as required by the Town of Bennett and other public and quasi-public agencies, including but not limited to easements for water, reuse water, sanitary sewer, drainage, natural gas, telephone and electrical facilities. Said easements shall be clearly labeled to include width, use and identification as public or private, if necessary. Tie to property lines and annotate with bearings and distances as necessary. Clearly show and label all existing easements, to include width and recording information, that cross, abutor are located |


| X |  | within the subdivision boundary. |
| :---: | :---: | :---: |
| X | X | Lots and Blocks: All lines of lots, blocks and other parcels of land defined by the plat will be clearly distinguishable from other map lines by use of a distinct line type and/or thickness. All lines will be labeled with a complete bearing and distance and all curves will be labeled with a radius and arc length. Lots must close to one in five thousand $(5,000)$. |
| X | X | Sight Distance Triangles: Identify Sight Distance Triangles at all intersections pursuant to the Bennett Roadway Design and Construction Standards. |
| X | X | Readability: All line annotation and all other text will be easily and clearly readable. No text shall overwrite other text or be overwritten by map lines. |
| X | X | Leader Lines: Use leader lines whenever a dimension is not clearly and unmistakably associated with a given line, line segment or arc. |
| X | X | Identification System: All lots and blocks in the subdivision shall be numbered, beginning with the numeral "1" and continuing consecutively throughout the tract, with no omissions or duplications. All tracts shall be likewise labeled beginning with the letter "A". Lots and tracts shall be labeled with the area of the lot or tract. |
| X | x | Legend: Provide a legend which designates all lines and symbols except where called out on plat drawing. |
| X | x | Address Plat Sheet: Prepare an Address Plat Map as a separate sheet per staff instructions. |
| X | x | Flooding: Designation of any area subject to flooding and adequate easements for flood control. |
| X | x | All other information required by State law. |
| GRADING AND DRAINAGE PLAN |  |  |
| X | X | A final drainage study shall be prepared in conformance with the Town of Bennett Design Criteria and Construction Specifications Manual or other codes and criteria set forth by the Town. The study shall conform to any town approved regional or sub-regional drainage study that incorporates the development area. The study shall describe storm drainage design for all of the land involved in the development and areas outside the development boundary that are impacted by the project. The requirement for the drainage study shall be waived or the scope reduced, if such a study was prepared for a final plat of which the development is consistent with or a part of, and the previously prepared study provides adequate information to evaluate the drainage impacts and measures necessary to mitigate such impacts. Any plans for erosion control and Best Management Practices (BMPs) shall meet current Town standards. |
| SOILS REPORT |  |  |
| X | X | A final soils report shall be prepared and certified by a Professional Engineer or geologist, registered in the State of Colorado, who is knowledgeable in soils identification, classification, and use. The report shall locate and classify the dominant soil types within or affecting the proposed development. The report shall indicate the degree of compatibility of the existing soils within the proposed development with regard to such engineering considerations as topography, drainage, bearing capacity an erosion potential. The report shall include a prognosis of the effects of the proposed development upon the existing site in this regard and shall include specific recommendations for additional exploration, testing, mapping or study as may be necessary to insure adequate protection from potentially hazardous or undesirable soils or geological conditions on the development site. |
| UTILITY PLAN |  |  |
| X | X | In addition to plans for water and sanitary sewer utilities, the subdivider shall submit evidence in accordance with Section 31-23-214, C.R.S., that provision has been made for facility sites, easements, and rights of access for electrical and natural gas utility service sufficient to ensure reliable and adequate electric or, if applicable, natural gas service. Submission of a letter of agreement between the sub divider and utility serving the site shall be deemed sufficient to establish that adequate provision for electric or, if applicable, natural gas service to the proposed subdivision has been made. |

## TRAFFIC IMPACT ANALYSIS

| X | $X$ | A final traffic impact analysis shall be provided with a final plat, unless specifically waived by the Town Staff. The <br> traffic impact analysis study shall incorporate any assumptions identified in the regional transportation plan. <br> Additionally, the study shall include projections of average daily incoming and outgoing trips generated by the <br> project; including distribution and level of service. Trips generated by the project shall be assigned to the |
| :--- | :--- | :--- |


| $x$ | $x$ |
| :--- | :--- | :--- |

surrounding street network to a distance of at least one mile from the site. The study shall be in conformance with the Institute of Transportation Engineers Trip Generation Report and shall be signed by a Colorado registered professional engineer.

## SCHOOL IMPACT ANALYSIS

| X |
| :--- |
| X | \(\begin{aligned} \& Analysis of the project's impact on the Bennett Sch <br>

\& and high school students, along with an estimate of <br>
\& Municipal Code.\end{aligned}\)

| X | X | A set of maps and/or drawings showing how a proposed development is to be constructed. <br> The plans must include: |
| :---: | :--- | :--- |

- site maps of the existing conditions and proposed improvements,
- installation/construction details for all proposed improvements,
- survey control (horizontal and vertical) for locating the improvements and,
- all necessary specification for the products to be used. Construction plans are often broken out for specific improvements; for example: site plan, grading plan, waterline improvement plans, roadways improvements plans, etc.


## SUBDIVISION AGREEMENT

| X |  | A development agreement may be necessary and initiated by staff in accordance with Chapter 16, Division 5 of <br> the Municipal Code, including the completion of public improvements required by the development agreement. |
| :---: | :---: | :--- | :--- |
|  |  |  |
| OTHER SPECIAL DOCUMENTS |  |  |
| X | X | Depending on the circumstances of the proposed subdivision and its intended development, the following <br> additional documents may be required by the Town Administrator or designee, Planning Commission or Board <br> of Trustees prior to approval of the final plat: |

1. State Highway Utility Permit (from Colorado Department of Transportation). Initial review by Town prior
2. State Highway Access Permit (from Colorado Department of Transportation).
3. Construction Dewatering Permit (from Colorado Department of Public Health and Environment).
4. 404 Permit (from Army Corps of Engineers).
5. Air Pollution Emission Notice (APEN) (from Colorado Department of Public Health and Environment.
6. Work in Ditch Right-of-Way Permit (from individual ditch companies).
7. Rare Species Occurrence Survey (from U.S. Fish and Wildlife Service). See Phase 1
8. General Warranty Deed - This deed conveys to the Town all public lands other than streets shown on the Plat, in lieu of a deed, a check in an amount to be determined by the Town.
9. Protective Covenants, Homeowners Association (HOA) Documents, Articles of Incorporation for HOA, and Architectural Design Guidelines finalized and in a form for recording. If there are open space areas to remain in private ownership within the subdivision, the HOA documents must have in place a mechanism which will assure maintenance will be funded in perpetuity. To be provided by builder later
10. FEMA approved applications (i.e., Conditional Letter of Map Revisions [CLOMR] or Letter of Map Revisions [LOMR]).
RECORDING FEES - Please verify with appropriate County Clerk \& Recorder's Office

| X | Adams County Recording Fees <br> $\$ 13.00$ for the first page and $\$ 10.00$ for each additional page per document Accept only $18^{\prime \prime} \times 24^{\prime \prime}$ Original Mylar http://www.adcogov.org/recording <br> Arapahoe County Recording Fees \$13 for first page and $\$ 10.00$ for each additional page Accepts only $24 \times 36$ " Original Mylar https://www.arapahoegov.com/313/Recording |
| :---: | :---: |

Bureau of Land Management<br>Colorado State Office<br>2850 Youngfield Street<br>Lakewood, CO 80215<br>Encana Oil \& Gas (USA) Inc.<br>370 17th Street, Suite 1700<br>Denver, CO 80202

iMinerals, LLC
5 Inverness Drive East
Englewood, CO 80112
Kiowa Creek Resources, LLC
P. O. Box 370170

Denver, CO 80237

Katherine H. Shayler
P. O. Box A

Palm Desert, CA 92261

## BRUNNER SUBDIVISION - FINAL PLAT AND MAJOR SITE PLAN Project Description - Statement of Intent

The Brunner Subdivision is intended to be a new single family detached home neighborhood with a central park. The site is a total of 20.17 acres and is planned for 87 home sites with a typical lot size of 50 -feet and 60 -feet wide by 100 -feet in depth on the interior and 110 -feet in depth on the perimeters. The parcel is planned in accordance with the R-2 (Mid-Density Residential) District. The neighborhood will be a quality community with a homeowner's association or metro district responsible for maintenance of all common area landscape, trail corridors and the internal park.

The relationship to Colfax Avenue, the arterial street on the north will be buffered from the homes by a detention/water quality pond and open space providing a buffer between the homes and the arterial road. Landscaping along the edge is intended to create an attractive xeriscape streetscape for this community.

Community design elements including an internal park amenity, a connecting open space/trail corridor, a variety of architectural elevations, appropriate lighting, uniform perimeter fencing, and other appropriate design features will contribute to providing a quality neighborhood. The primary entrance to the community will include an entry monument sign with landscaping to provide a pleasing presentation from the street and announce arrival to the neighborhood.

Primary vehicular access to the neighborhood will be from Colfax Ave./Highway 36. An internal loop street and supplemental grid street pattern will provide access for the homes. Secondary access is proposed on the southeast corner of the site in anticipation of vehicular connectivity with Muegge Farms. An all-weather surface is proposed for emergency vehicle only access until the street network is complete.

Pedestrian and bicycle access will be provided along sidewalks adjacent to the neighborhood streets that will link this residential area with developed areas of the Town. The one-acre pocket park central to the neighborhood provides the organizing element of the neighborhood. The park will include and open play field, trail loop, play structure, shade structure, picnic tables and BBQ grills, benches, bike racks and dog waste stations. The park is bordered by streets on three sides creating a visible and easily accessible space. Trails within the park provide a connection to the sidewalks adjacent to the park. A trail corridor also is provided from the entry drive on the north to the central park.

A trail link is proposed in the southwest corner of the site providing access to a proposed trail along the Towns' right-of-way easement south of the site which will provide access to the Town's existing trail system and eventually connecting to Muegge Farms and the planned school site, Civic Center Park, Bennett Park and Recreation District, and Town Hall. Together, the trail and walks will provide several connections to nearby amenities.

1501 Wazee Street Suite 1-C, Denver, Colorado 80202
303.446.2368 - henrydesigngroup.com

Drainage will be conveyed to an infiltration pond south of the site and integrated into the future Muegge Farms development. The Town of Bennett will provide water and sewer service to the site via adjacent existing infrastructure that was constructed as part of the Penrith Park Subdivision (Skyview). Utility easements are provided along the front, sides, and rear of each lot to allow for dry utility connections.

The intent of the architecture within the Brunner Subdivision is to provide homes of various architectural designs, colors and articulation which are complementary to one another but not monotonous. The homes shall relate to the street and create diversity and variety along the streetscape. It is encouraged that the homes have a variety of private outdoor living spaces which may include patios, front porches, or balconies. The elevations shall reflect traditional Colorado styles and neighborhoods, while also allowing complimentary modern designs.

## BRUNNER SUBDIVISION FILING NO. 1

FINAL PLAT
A SUBDIVISION IN THE SOUTHWEST $1 / 4$, SECTION 28 , TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, ADAMS COUNTY, STATE OF COLORADO

WNERSHP AND DEDICATION
PARCEL OF PROPERTY LOCATED IN THE SOUTHWEST QUARTER OF SECTION 28
 ONSIDERING THE SOUTHLINE OF SECTION 28 TO BEAR S88944'09"E WTHE ALL BEARING CNTANED HEREIN RELATVE THERETO; THENCE S894409"E ALONG SAID SOUTH LINE, A




 POIN ON THE SOUTH LINE OF SAID SECTTON 28, THENCE N89444O9'W ALONG SAID SOUTH NE, A DISTANCE OF 752.26 FEET TO THE POINT OF BEGINNING.

HAVE LADD OUT, SUBBIVIDED AND PLATTED SAID LAND AS PER DRAWING HEREON CONTAINED OF THE TOWN OF BENNETT, COUNTY O ADAMS, STATE OF COLORADO, AND BY THESE PRESENTS DO HEREBY DEDICATE TS THE TOWN OF BENNETT THE STREETS, AVENUES AND OTHER PUBLCIC PLACC OREVER AND DIES FUSTHER DEDICATE TO THE USE OF THE TOWN OF BEENETT AND ALL SER SE UBLIC UTLITTIES AND OTHER APPROPRIATE ENTITIES THOSE PORTIONS OF SAID REAL PROPERTY
WHICH ARE SO DESIIGNATED AS EASEMENTS AS SHOWN.

II EXPRESLI UNDERSTOOD AND AGREED BY THE UNDERSIGNED THAT ALL EXPENSES AND COSTS
 LANDSCAPING, CURBS, GUTTTRS, STREET PAVEMENT, SIDEENALKS, AND OTHER SUCH UTLITIES AND
SERVICES SHALL BE GUARANTEED AND PAID FOR BY THE OWNER OR ARRANGEMENTS MADE BY TH SERVICES SHALL BE GUARANTED AND PAID FOR BY THE OWNER OR ARRANGEMENTS MADE BY TH
OWNER THEREO WHICH ARE APPROVED BY THE TOWN OF BENNETT, COLORADO; THAT SUCH SUM SHALL NOT BE PAID BY THE TOWN OF BENNETT; AND THAT ANY TTEM SO CONSTRUCTED O INSTALLED WHEN ACCEPTED BY THE TOWN OF BENNETT SHALL BECOME THE SOLE PROPERTY
SAID TOWN OF BENNETT, EXCEPT PRIVATE ROADWAY CURSS, GUTER AND PAVEMENT AND ITEN OWNED BY MUNIIIPALITY FRANCHISED UTLLTIIES, AND/OR OTHER SERVING PUBLIC UTLLTIIES WHICH WHEN CONSTRUCTED OR INSTALLED SHALL REMAIN AND/OR BECOME THE PROPERTY O SUCH MUNCIPALITY FRANCHISED UTLLTIES, AND/OR OT
NOT BECOME THE PROPERTY OF THE TOWN OF BENNETT.
EXECUTEDTHS DAYOF $\qquad$ 20
owner:
$\qquad$ As

state of colorado )
COUNTY Of DENVER )
THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS
20
BY JIM MARSHAL AS ACTING MANAGER OF MGV 36 SOUTH LAND $\xrightarrow{\text { INVESTMENTS, LLC. }}$.
WITNESS MY HAND AND SEAL.
$\overline{\text { NOTARY PUBLIC }}$

MY COMMISSION EXPIRES


VICINITY MAP


OWN CERTIFICATION:
THII IS TO CERTIFY THAT THE PLAT OF BRUNNER SUBDIVIIION, FILNG NO. 1 WAS
 BENNETT, HEREBY ACKNOWLEDGES SAID PLAT UPON WHHCH THIS CERTIILCATE IS NDORSED FOR ALL PURPOSES INDICATED THEREON.

MAYOR
ATTEST: TOWN CLERK

SURVEYOR'S CERTIFICATE:
1, ELUAH FRANE, A REGITTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF
COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTE BY THIS PLAT MADE UNDER MY SUPERVIIION AND THE MONUMENTS SHOWN THEREON ACTUALLY Inis An THIS PLAT ACCURATELY REPRESENTS SAID SURVEY.

ELIJAH FRANE P.L.S. \# 38376
DATE

CLERKS AND RECORDER'S CERTIFICATE:
reception no.

AcCePted for fling in the office of the clerk and recorder of adams couniv | AT BRIGHTON, COLORADO, ON |
| :--- |
| O'CLOCK, |

## ADAMS COUNTY CLERK AND RECORDER

${ }^{\text {BY: }}$ DEPUTY


## BRUNNER SUBDIVISION FILING NO. 1

## FINAL PLAT

A SUBDIVISION IN THE SOUTHWEST $1 / 4$, SECTION 28 , TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6 TH PRINCIPAL MERIDIAN, TOWN
OF BENNETT, ADAMS COUNTY, STATE OF COLORADO
SHEET 2 OF 5

TOWN OF BENNETT NOTES.
ALL TE HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO MAINTAIN, OPERATE, REPAIR AND RECONSTRUCT THE TRACT
MAINTENANCE, OPERATIO
2. THE POLICY OF THE TOWN REQUIRES THAT MAINTENANCE ACCESS SHALL BE PROVIDED TO ALL STORM DRAINAGE FACILTIES TO ASSURE CONTINUOUS OPERATIONAL CAPABIITY OF THE SYSTEM. THE MUEGGE FARMS METRO DISTRICT NO. 3 SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FAIILTIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY A SUBDIVIIIIN AGREEMENT OR DEVELOPMENT AGREEMENT. SHOULD THE OWNER FAIL TO MAINTAIN SAID FACILITIES, THE TOWN OF BENNETT SHALL HAVE THE RIGHT BUT NOT THE OBLIGATION TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER(S).
3. SURFACED ACCESS ROADS CAPABLE OF WITHSTANDING THE IMPOSED LOADS OF FIRE APPARATUS AND ALL REQUIRED FIRE HYDRANTS SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO CONSTRUCTION.
4. ALL INTERNAL ROAD AND DRAINAGE FACILTY CONSTRUCTION SHALL BE IN ACCORDANCE WITH STREET CONSTRUCTION PLANS, PAVEMENT DESIGN, GRADING AND EROSION CONTROL PLANS, A FINAL DRAINAGE PLAN AND ALL APPLICABLE TOWN ADOPTED STANDARDS AND SPECIFICATIONS SUBMITTED TO AND APPROVED BY THE TOWN OF BENNETY.
5. NOTICE IS GIVEN THAT THIS SUBDIVIIION WILL BE SUBJECT TO RECORDED DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS. THE TOWN OF BENNETT IS NOT RESPONSIBLE FOR ENFORCEMENT OF THE RECORDED COVENANTS, CONDITIONS, AND RESTRICTIONS THAT MAY BE FLLED AGAIIST THE SUBDIVISIIN PLAT
6. SIGHT DISTANCE EASEMENTS ARE HEREBY DEDICATED TO THE TOWN OF BENNETT FOR SIGHT DISTANCE PURPOSES TOGETHER WITH THE FOLLOWING RESTRICTIONS OVER SAID EASEMENTS: NO OBJECT WITHIN THE SIGHT DISTANCE EASEMENT SHALL BE MORE THAN THIRTY-SIX (36) INCHES ABOVE THE FLOWLINE OF THE ADJACENT STREET. SUCH OBJECTS SHALL INCLUDE BUT NOT BE LIMITED TO BULLDINGS, VEGETATION, AND UTLITY
7. THERE ARE NO SIGNIFICANT NATURAL DRAINAGE COURSES, GEOLOGIC hAZARD AREAS, OR OTHER NATURAL FEATURES WITHIN OR ADJACENT TO THE SUBDIVIIION.
8. MONUMENTS, ORNAMENTAL COLUMNS, WINDOW WELLS, COUNTERFORTS, PATIOS, DECKS, RETAINING WALLS AND THEIR COMPONENTS ARE NOT PERMITTED TO ENCROACH INTO UTLLITY EASEMENTS

NOTES:
解
2. DATE OF SURVEY WAS NOVEMBER 08, 2018.
3. THE US SURVEY FOOT WAS THE UNIT UTLLZED IN THE SURVEY. THE US SURVEY FOOT IS EQUAL TO 1.000002 INTERNATIONAL FEET OR 0.304801 METERS
4. THE PROPERTY WITHIN THE BOUNDARIES OF THIS FINAL PLAT IS SUBJECT TO RESERVATIONS, RESTRICTIONS, COVENANTS AND EASEMENTS OF RECORD OR IN PLACE.
5. NON-EXCLUSIVE 8-FOOT FRONT LOT UTILTY EASEMENTS LOCATED AS SHOWN HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTILITIES AND DRAINAGE FACILITIES, INCLUDING, BUT NOT LIMITED TO STREET LIGHTS, ELECTRIC LINES, GAS LINES, CABLE TELEVIIION LINES, FIBER OPTIC LINES, AND TELEPHONE LINES, AS WELL AS PERPETUAL RIGHT FOR INGRESS AND EGRESS FOR INSTALLATION MAINTENANCE, AND REPLACEMENT OF SUCH LINES.
6. NON-EXCLUSIVE 10-FOOT UTILTY EASEMENTS LOCATED ALONG THE REAR LOT LINES HEREBY GRANTED FOR THE INSTALLATION, MANTENANCE, AND OPERATION OF UTLTIES AND DRAINAGE FACILTIES, INCLUDING, BUT NOT LIIN
7. NON-EXCLUSIVE 5-FOOT UTILITY EASEMENTS ALONG SIDE LOT LINES SHOWN ARE HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTLITIES AND DRAINAGE FACILITIES, INCLUDING, BUT NOT LIMITED TO STREET LIGHTS, ELECTRIC LINES, CABLE TELEVISION LINES, FIBER OPTIC LINES, AND TELEPHONE LINES, AS WELL AS PERPETUAL RIGHT FOR INGRESS AND EGRESS FOR INSTALLATION, MAINTENANCE and replacement of such lines.
8. STATE HIGHWAY RIGHT-OF-WAY MAINTENANCE: ANY IMPROVEMENTS OUTSIDE THE FLOWLINE OR BEYOND THE EDGE OF ASPHALT OF THE STATE HIGHWAY OR FUTURE STATE HIGHWAY, INCLUDING BUT NOT LIMITED TO HEIRS OR ASSIGNS.
9. TRACTS A, B ARE DEDICATED TO THE TOWN OF BENNETT. TRACTS I AND J ARE DEDICATED TO THE TOWN OF BENNETT AS RIGHT OF WAY

| 6 Inverness Ct. E. Suite, 125 Englewood, CO 80112 303.925 .0544 T 303.925 .0547 F www.2ncivil.com | MGV 36 SOUTH LAND INVESTMENTS, LLC $\text { PO BOX } 4701$ <br> GREENWOOD VILLAGE, CO 80155 | ISSUED DATE: | 9-02-21 |
| :---: | :---: | :---: | :---: |
|  |  | PROJECT NUMBER: | 20025 |
|  |  | SHEET | OF 5 |



## BRUNNER SUBDIVISION FILING NO. 1 FINAL PLAT <br> A SUBDIVISION IN THE SOUTHWEST1/4, SECTION 28 , TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL

MERIDIAN, TOWN OF BENNETT, ADAMS COUNTY, STATE OF COLORADO
SHEET 4 OF 5



| MGV 36 SOUTH LAND INVESTMENTS, LLC | ISSUED DATE: | 9-02-21 |
| :---: | :---: | :---: |
|  | PROJECT |  |
| PO BOX 4701 | NUMBER: | 20025 |
| GREENWOOD VILLAGE, CO 80155 | SHEET | OF |


| CURVE TABLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CURVE \# | ARC LENGTH | Radius | delta angle | CHORD beARING | CHORD LENGTH |
| C1 | 21.47 | 45.00 | 27 ${ }^{\circ} 0^{\prime \prime} 19$ " | S1401844"W | 21.27 |
| C2 | 34.61 | 45.00 | 44*03'52" | S50000'54"W | 33.76 |
| С3 | 98.54 | 63.00 | 89937712" | S45927115"W | 88.80 |
| C4 | 59.44 | 38.00 | 89937 ${ }^{\prime \prime} 12^{\prime \prime}$ | S459 ${ }^{\circ} 7^{\prime} 15^{\prime \prime} \mathrm{W}$ | 53.56 |
| C5 | 39.27 | 25.00 | 900'00' | S45 ${ }^{\circ} 5^{\prime} 51{ }^{\prime \prime} \mathrm{W}$ | 35.36 |
| C6 | 39.27 | 25.00 | 900'00' | S4444409"E | 35.36 |
| C7 | 30.19 | 45.00 | 38²6'34" |  | 29.63 |
| c8 | 32.65 | 45.00 | $41^{\circ 3} 3566^{\prime \prime}$ |  | 31.93 |
| c9 | 8.12 | 45.00 | 10 $0^{\circ} 0^{\prime} 41^{\prime \prime}$ | S04*33'18"E | 8.11 |
| C10 | 99.35 | 63.00 | 90 ${ }^{\circ} 1^{\prime \prime} 111^{\prime \prime}$ | N44*93'33'W | 89.37 |
| C11 | 59.92 | 38.00 | 90 ${ }^{\circ} 1^{\prime \prime 111 "}$ | N44*33'33'W | 53.91 |
| C12 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C13 | 26.82 | 17.00 | 90 ${ }^{\circ 2}{ }^{2} 48{ }^{\prime \prime}$ | S44932'44"E | 24.12 |
| C14 | 26.59 | 17.00 | ${ }^{89} 9^{3} 712^{\prime \prime}$ | S45 ${ }^{\circ} 27^{\prime} 11^{\prime \prime} \mathrm{W}$ | 23.96 |
| C15 | 26.81 | 17.00 | ${ }^{90} 0^{\circ} 1^{\prime \prime} 11^{\prime \prime}$ | N44333'33"W | 24.12 |
| C16 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C17 | 26.82 | 17.00 | 90 ${ }^{\circ} 2^{2} 48{ }^{\prime \prime}$ | S44*32'45"E | 24.12 |
| C18 | 26.59 | 17.00 | $8^{89} 9^{\circ} 112^{\prime \prime}$ | N45 ${ }^{\circ} 27115$ "E | 23.96 |
| C19 | 26.81 | 17.00 | 90 ${ }^{\circ} 1^{\prime \prime} 11^{\prime \prime}$ | S44* ${ }^{\circ} 3^{\prime} 33^{\prime \prime} \mathrm{E}$ | 24.12 |
| C20 | 26.60 | 17.00 | 8993849" | S455 ${ }^{\circ} 6^{\prime} 27$ "W | 23.97 |
| C21 | 59.94 | 38.00 | 90 ${ }^{\circ 2}{ }^{\prime 2} 48^{\prime \prime}$ | N44*32'44"W | 53.92 |
| C22 | 99.38 | 63.00 | 90 ${ }^{\circ 2}{ }^{\prime 2} 48{ }^{\prime \prime}$ | S44*32'45"E | 89.39 |
| C23 | 8.37 | 45.00 | 1003933" | S044 ${ }^{1077^{\prime \prime} \mathrm{E}}$ | 8.36 |
| C24 | 31.17 | 45.00 | 39944'20" | S299051'34"E | 30.55 |
| C25 | 31.44 | 45.00 | $40^{\circ} 0^{1} 55{ }^{\prime \prime}$ | S699³'111"E | 30.81 |
| C26 | 26.81 | 17.00 | 90 ${ }^{\circ} 1^{\prime \prime 111 "}$ | S44*33'3'3"E | 24.12 |



## BRUNNER SUBDIVISION FILING NO. 1 FINAL PLAT

Move FINAL PLAT to

OWNERSHIP AND DEDICATION
THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28 , TOWNSHP 3
SOUTH RANGE 33 WEST OF THE GTH PRINCIPAL MERIDAN COUNTY OF ADAMS STATE OF SOUTH, RANGE 63 WEST OF THE ETH PRINCIPAL MERIDAN, COUNTY OF ADAMS, STATE OF
COLORADO, LESS THAT PORTION DESCRIBED 1992 IN BOOK 3996 PAGE 496 AND LESS THAT PORTION DESCRIBED IN QUUIT CLAAM DEED
RECORDED OCTOBER 1984 IN BOOK 2923 PAGE 876 AND LESS THAT PORTION NOW PLA RECORDED OCTOBER 3, 1984 IN BOOK 2923 PAGE 876 AND LESS THAT PORTION NOW PLATTED
AS PENRITH PARK AMENDED RECORDED DECEMBER 22002 AT RECEPTION NO. C 1059955 , AS PENRITH PARK AMENED
ADAMS COUNTY RECORDS.

HAVE LAD OUT, SUBDIVIDED AND PLATIED SAD LAND AS PER DRAWNG HEREON CONAINEDUNDER THE NAME AND STYLE OF "BRUNNER SUBDVIVIION, FLLING NO. 1 " A SUBDVIVIION OF A PART OF THE
TOWN OF BENETT, COUNTY OF ADAMS, STATE OF COLORADO, AND BY THESE PRESENTS DO HEREB DEDICATE TO THE TOWN OF BENNET THE STREETS, AVENUES AND OTHER PUBLIC PLACES INCLUDIN
TRACTS, AS SHOWN ON THE ACCOMPANYING PLAT FOR THE PUBLC USE THEREOF FOREVER AND DOES
 OTHER APPROPRIATE ENTTII
AS EASEMENTS AS SHOWN.

IT I EXPRRESSIY UNDERSTOOD AND AGREED BY THE UNDERSIGNED THAT ALL EXPENSES AND COSTS SYSTEM WORKS AND LINES, GAS SERVICE LINES, ELECTRICAL SERVIICE WORKS AND LINES, LANDSCAPING, CURBS, GUTTERS, STREET PAVEMENT, SIDEWALKS, AND OTHER SUCH UTLITTIES AND SERVICESS SAALL G WHARANTEED AND DAD FOR BY THE OWNER AR ARROVED BY THE TOWN OF BENNET, COLORADO; THAT SUCH SUMS SHAII NOT BE BY THE TOWN OF BENNTTT; AND THAT ANY TTEM SO CONSTRUCTED OR INSTALLED WHEN ACCEPTED BY THE TOWN OF BENN ETT SHALL BECOME THE SOLE PROPERTY OF SAID TOWN OF BENNETT, EX
PRIVATE ROADWAY CURB, GUTTER AND PAVEMENT AND ITEMS OWNED BY MUNIIIPALTYY FRANCHISED UTLITTES, AND/OR OTHER SERVING P PBLLLC UTLITTISS, WHICH WHEN C CNSTRUCTED OR INSTALLED SHALL REMAIN AND/OR RECOME THE PROPERTY O F SUCH MUNCIIPALITY FRANCHIISE UTLLTTES, AND/OR OTHER SERVING PUBLIC ENTTITES, AND SHALL NOT BECOME THE PROPERTY OFT

EXECUTE
OWNER: day of $\qquad$ ${ }^{20}$
-_As -As $\qquad$ of
state of colorado )
COUNTY Of denver ) ${ }^{\text {ISS }}$
) ${ }^{\text {ss: }}$
THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS DAY OF
20_ BY JIM MARSHALL AS ACTING MANAGER OF MGV 36 South Laded Investments, LLC
Witness my hand and seal.


## MERIDAN TOWN OF BENNETT ADAMS COUNTY STATE OF COLORADO



What is the pur
of this tract?
$\frac{\text { NOTES: }}{1-T}$
VICINITY MAP
NOTES:

1. THE BASIS OF BEARINGS FOR THIS PLAN ARE BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 28 HAVING A BEARING OF N899 $44^{\circ} 09$ "W.
2. DATE OF SURVEY WAS NOVEMBER 08, 2018
3. THE US SURVEY FOOT WAS THE UNIT UTLLIZED IN THE SURVEY. THE US SURVEY FOOT IS EQUAL TO 1.000002 INTERNATIONAL FEET OR 0.304801 METERS
4. THE PROPERTY WITHIN THE BOUNDARIES OF THIS FINAL PLAT IS SUBJECT TO RESERVATIONS, RESTRICTIONS, COVENANTS AND EASEMENTS OF RECORD OR IN PLACE.
5. NON-EXCLUSIVE 8-FOOT FRONT LOT UTILITY EASEMENTS LOCATED AS SHOWN HEREBY GRANTED FOR THE NSTALLATION, MAINTENANCE, AND OPERATION OF UTLITTES AND DRAINAGE FACILITIES, INCLUDING, BUT NO LIMIEE TO STREET LIGHTS, ELECTRIC LINES, GAS LINES, CABLE TELEVVIIOL LINES, FIBER OLTII LINES, AND AND REPLACEMENT OF SUCH LINES.
6. NON-EXCLUSIVE 10-FOOT UTLITY EASEMENTS LOCATED ALONG THE REAR LOT LINES HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTILITIES AND DRAINAGE FACILITIES, INCLUDING, BUT NOT
 LINES.
7. NON-EXCLUSIVE 5-FOOT UTLLTTY EASEMENTS ALONG SIDE LOT LINES SHOWN ARE HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTILITIES AND DRAINAGE FACILTIIES, INCLUDING, BUT NOT IMITED AS WEL AS PERPETUAL RIGHT FOR INGRESS AND EGRESS FOR INSTALATION MANTENANCE AND LINES, AS WELT AS PERPETIAL
REPLACEMENT OF SUCH LINES
8. STATE HIGHWAY RIGHT-OF-WAY MAINTENANCE: ANY IMPROVEMENTS OUTSIDE THE FLOWLINE OR BEYOND THE SIDEWALK AND LANDSCAPING, WHICH ARE INSTALLED AT THE DIRECTION OF LOCAL LAND USE JURISDICTION SHALL LE MAINTAINED BY THE DEVELOPER, HOMEOWNERS ASSOCIATION, METROPOLITAN DISTRICT, THEIR HEIRS or Assigns
9. TRACTS A, B, I AND J ARE DEDICATED TO THE TOWN OF BENNETT ASPIGHT OF WAY.

town Certicication: Replace "this" with
"the" THIS IS TO CE
$\qquad$ THP IS TO CERTIFY THAT THEPRLAT OF BRUNNER SUBDIVIIION, FLING NO. 1 WAS
 ACKNoWLEDGES SAID PLAT UPON
PURPOSES INICATED THEREON.
mayor
ATTEST: TOWN CLERK
SURVEYOR'S CERTIFICATE:
Insert "BY RESOLUTION
NO.
ELJAH FRANE, A REGITTERED PROFESSSINALL LAND SURVEVOR IN THE STATE O COLORADO, DO HEREBY CERTIF THAT THE SURVEY REPRESENTED BY THIS PLAT WAS
MADE UNDER MY SUPERVIION AND THE MONUMENTS SHOWN THEREN ACTUALIY EXIST AND THIS PLAT ACCURATELY REPRESENTS SAID SURVEY.

ELUAH FRANE P.L.S. \# 38376
EUAAH FRANE P.L.S. \#
FOR 2 N CIVIL, LIC
DATE
ATTORNEY'S CERTIFICATE:
C'ERTIF THATI HAVE EXAMINED THE TTILE TOALLOF THE LAND PLATTED HEREON
AND THAT TTLE TO SUCH LAND IS IN THE DEDICATORS FREE AND CLEAR OF ALL
LENS TAXES
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DATER


Note No. 9

Delete File No. and Map No. No longer
CLERKS AND RECORDER'S CERTIFICAIE. necessary.

ACCEPTED For flung in the office of the clerk and recorder of adams

$\overline{\text { ADAMS COUNTY CLERK AND RECORDER }}$
BY: ${ }_{\text {DEPUTY }}$

## CLIENT <br> MGV 36 SOUTH LAND INVEST

GREENWOOD VILLAGE, CO 80155

| ISSUED DATE: | 5-21-21 |
| :--- | :--- |
| PROJECT <br> NUMBER: | 20025 |
| SHEET 1 | OF 4 |


| TO: | John Vitella, MGV 36 South Land Investments, LLC <br> Karen Henry, Henry Design Group, Inc. |
| :--- | :--- |
| FROM: | Steve Hebert, Planning and Economic Development Manager |
| DATE: | June 23, 2021 |
| SUBJECT: | Case No. 21.15 Brunner Ranch Final Plat Referral Comments - First Submittal |

John, Karen, et. al.,
I will transmit the referral agency comments we have received to-date on the proposed Brunner Subdivision Final Plat, Case No. 21.15 by email.

Referral Agencies with Responses as of June 22, 2021

- Town of Bennett Planning
- Town of Bennett Town Engineer
- Town of Bennett Town Traffic Engineer
- Colorado Department of Transportation (CDOT)
- Bennett-Watkins Fire Rescue
- Intermountain Rural Electric Association (IREA)
- Bennett School District 29J
- I-70 REAP

Please review all comments and make changes and updates as appropriate to the plat documents. When you are ready to resubmit, please include a response to all referral agencies in letter/memo form as well as responses to any redlined comments on the plat document.

Issues and concerns identified include, but are not limited to:

## Tracts and Easements

1. As noted in the Town Engineer's comments and on the Planning Staff redlined plat, the proposed purpose and final disposition related to ownership and maintenance of various tracts needs to be resolved.
2. Additional easements as requested by IREA

## Water and Sanitary Sewer

1. Potential for recycled water "purple pipe" connections
2. Water supply and fire flow transitional pressure zone comments
3. Potential problems and challenges related to the depth of sanitary sewer lines and lengths of sanitary sewer runs
4. Implication and challenges related to the proposed use of the Penrith Park lift station

Stormwater Management
Several comments as noted in the Town Engineer's memorandum regarding on-site and off-site stormwater improvements.

## Access/Streets/Sidewalks

1. Limitations and implications of the access onto U.S. $36 /$ Colfax Avenue being limited to right-in/right-out
2. Multiple questions and comments noted in the CDOT memorandum
3. Requirements for a secondary access to the south
4. Design of 90 -degree corners
5. Design of ADA ramps

## Fire Protection

Review and respond to all Bennett-Watkins Fire Rescue comments.
School Land Dedication

The Bennett School District 29J has asked for cash-in-lieu of land dedication.
The above summary is not intended to be an all-inclusive list of issues identified or those that need to be addressed. Please review all comments and respond as noted earlier.

Please call or email me if you have any comments or questions.

STATE HIGHWAY 36 (100' R.O.W.)


## BRUNNER SUBDIVISION FILING NO. 1 FINAL PLAT <br> A SUBDIVISION IN THE SOUTHWEST1/4, SECTION 28 , TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL

MERIDIAN, TOWN OF BENNETT, ADAMS COUNTY, STATE OF COLORADO


BOOK 3996
PAGE 497
PAGE 497
(NOTA ART)

| 6 Inverness Ct. E. Suite, 125 Englewood, CO 80112 303.925 .0544 T 303.925 .0547 F www. $2 \mathrm{ncivil} . \mathrm{com}$ |  | CLIENT <br> MGV 36 SOUTH LAND INVESTMENTS, LLC $\text { РО BOX } 4701$ <br> GREENWOOD VILLAGE, CO 80155 | ISSUED DATE: |  | 21-21 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PROJECT NUMBER: |  | 0025 |
|  |  | S HEET | 0 | F 4 |


| CURVE TABLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CURVE\# | ARC Length | Radius | delta angle | CHORD bearing | CHORD LENGTH |
| C1 | 4.65 | 45.00 | $5^{\circ} 55^{\prime} 12^{\prime \prime}$ | S03*36'15"W | 4.65 |
| C2 | 32.28 | 45.00 | 41005'57" | S27006'49"W | 31.59 |
| С3 | 33.46 | 45.00 | 42 ${ }^{\circ} 366^{\prime} 3^{\prime \prime}$ | S6895749"W | 32.69 |
| C4 | 98.54 | 63.00 | 89937 ${ }^{\prime \prime 1}{ }^{\prime \prime}$ | S45 ${ }^{\circ} 7^{\prime} 11^{\prime \prime W}$ | 88.80 |
| C5 | 59.44 | 38.00 | $89^{\circ} 7^{7} 12^{\prime \prime}$ | S45 ${ }^{\circ} 7^{\prime} 15^{\prime \prime} \mathrm{W}$ | 53.56 |
| C6 | 39.27 | 25.00 | 90 $0^{\circ} 0^{\circ} 00^{\prime \prime}$ |  | 35.36 |
| C7 | 39.27 | 25.00 | 9000'00" | S44*44'09"E | 35.36 |
| C8 | 22.37 | 45.00 | 28²8'57" | N75 ${ }^{\circ} 99^{\prime 4} 1{ }^{\prime \prime} \mathrm{W}$ | 22.14 |
| c9 | 32.51 | 45.00 | $41^{\circ} 3^{3} 311$ | N40 ${ }^{\circ} 33^{\prime} 13^{\prime \prime} \mathrm{W}$ | 31.81 |
| C10 | 16.08 | 45.00 | 20²8'30" | N09 ${ }^{\circ} 7^{1} 13^{\prime \prime} \mathrm{W}$ | 16.00 |
| C11 | 99.35 | 63.00 | 90²1'11" | N44*33'33"W | 89.37 |
| C12 | 59.92 | 38.00 | 90²1'11" | N44*33'33"W | 53.91 |
| C13 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C14 | 26.82 | 17.00 | 90 ${ }^{\circ} 2^{\prime} 48^{\prime \prime}$ | S44*32'45"E | 24.12 |
| C15 | 26.59 | 17.00 | 89937'12" | S45 ${ }^{\circ} 27$ '115"W | 23.96 |
| C16 | 26.81 | 17.00 | $90^{\circ} 1^{1111 "}$ | N44033'33"W | 24.12 |
| C17 | 26.60 | 17.00 | 8993849" | N45 ${ }^{\circ} 26{ }^{\prime 27}{ }^{\text {²E }}$ | 23.97 |
| C18 | 26.82 | 17.00 | 90 ${ }^{\circ} 2^{\prime 2} 48{ }^{\prime \prime}$ | S44*32'45"E | 24.12 |
| C19 | 26.59 | 17.00 | 89937'12" |  | 23.96 |
| C20 | 26.81 | 17.00 | 90²1'11" | N44*33'33"W | 24.12 |
| C21 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C22 | 59.94 | 38.00 | 90²2'48" | S44*32'44"E | 53.92 |
| C23 | 99.38 | 63.00 | 90²2'48" | S44932'44"E | 89.39 |
| C24 | 8.37 | 45.00 | 10³9'33" | S04* ${ }^{1} 107^{\prime \prime}$ E | 8.36 |
| C25 | 31.17 | 45.00 | 39941'20" | S29951'34"E | 30.55 |
| C26 | 31.44 | 45.00 | 40 ${ }^{\circ} 11^{15} 5^{\prime \prime}$ | S69943'11"E | 30.81 |
| C27 | 26.81 | 17.00 | 90²1'11" | N44*33'33"W | 24.12 |



# Engineering Review Memo 

To: Stephen Hebert, AICP, Bennett Planning \& Economic Development Manager
From: Dan Giroux, PE, Engineering Consultant to the Town
Date: Monday, June 21, 2021
Case: $\quad$ Brunner Subdivision Final Plat / Town Land Use Case 21.15
Subject: Town Civil Engineering Review

Per the request of the Town of Bennett, Terramax, Inc. has reviewed the application materials for the proposed Brunner Subdivision Final Plat. This review does not include a full review of the Public Improvement Construction Documents (PI CD's) pending general review of Final Plat information, including layout and general information for streets, utilities, lots, Tracts, studies and reports. This review does not relieve the applicant from meeting the Town's requirement that the development comply with all Town Codes and Standards.

I have the following comments to offer on the Brunner Subdivision Final Plat and supporting submittal materials:

## General \& Title Commitment

- The Town will provide a template for required General Notes for the Final Plat, if not already received.
- Tracts A, B, I \& J may already hold Town of Bennett rights or ownership per the provided Title Commitment.
- Tracts I \& J are proposed as grading Tracts for this development, and may provide limited opportunity for Town uses or purposes, including access, utilities, or other, depending on future Muegge Farms grading.
- Does the Prairie Falcon Parkway Express hold any rights, limitations or obligations for this property?


## Water Supply

- Suitability of proposed Tracts for future groundwater well development to be evaluated by the Town Water Supply Specialist review.
- This could include or feature a non-potable groundwater supply well.
- Contiguity to Muegge Farms would provide an opportunity for 'purple pipe' reclaimed/reuse irrigation water supply in this subdivision, at least for Park and open spaces.
- The property lies within the Town's transitional pressure zone area, relying on redundant domestic and fire protection water supply from the Town's two current pressure zones.
- As a result, the developer will be required to contribute to pressure zone accommodation improvements, including pressure reducing valves (PRV's), to allow connection to both Town water system pressure zones.


## Water Distribution System

- Show on Master Utility Plan delineations for "over or under" storm sewer for water service crossings, or note if all water services are above all storm sewer runs.
- Water Lowering areas at crossings must feature isolation valves at or near each end, or clearly show which water services would be affected by a Lowering area "out of service" for maintenance or repair/replacement.
- Final fire hydrant spacing, locations and access to be confirmed with Bennett-Watkins Fire Rescue (BWFR). Town maximum spacing is 350 feet.


## Sanitary Sewer System

- Shallow sanitary sewer (SS) is typically intended and allowed for limited, specialcircumstance areas, due to the additional water main, fire hydrant and storm sewer crossing conflicts posed.
- This development does not seem to hold those special circumstances.
- Extra-long sanitary sewer runs, over 400 feet between SS manholes (MH's), are reserved for limited, special-circumstance areas.
- Again, this development does not seem to hold those special circumstances.
- Further storm sewer evaluation may lead to additional sanitary sewer implications, please see Stormwater section below.
- The applicant is proposing to use the existing Penrith Park Lift Station (PPLS). There are several important implications:
- The PPLS is currently under warranty with the installing developer, and connection and modifications would result in assumption and extension of the current warranty.
- The PPLS is currently experiencing operational difficulties, and is expected to be under warranty claim this Summer with the installing developer.
- There will be no additional development connections allowed until the current operational difficulties are resolved.
- The additional flows and use for the PPLS would require a CDPHE Site Application (SA) Amendment.
- The developer will be required to pay for this SA Amendment.
- The Town will need to further evaluate the resulting PPLS overflow volume \& response time.
- It is likely the overflow volume would need to be increased with an additional overflow wet well.
- Wet well location would be limited by Town right-of-way or easement, or additional acquisition of rights.
- There will also need to be a formal Force Main hydraulics check, and pump \& control design \& adjustments as necessary.
- These will be at Brunner Subdivision developer expense.
- The route contemplates use of the Town's Penrith Park Tract K, dedicated towards Town water infrastructure use and expansion, previously conceived to be additional Town groundwater wells.
- This appears to require Town easement dedication, along with maintenance service road construction by the developer.


## Access/Streets, Sidewalk

- Colfax Avenue widening and auxiliary lane comments deferred pending CDOT Access Permit \& Notice-to-Proceed applications, processing, referrals, and details.
- It appears the Colfax Avenue connection and lane configuration will require exemptions from Access Standards, requiring Town support.
- 90-degree street turns do not appear to meet Town Standards for knuckles, eyebrows, or other accommodations.
- The Town requires Directional ADA Ramps (approximately perpendicular to centerline of crossing street), typically CDOT 2A type, rotated to approximately Point-of-Curb-Return (PCR).
- The southerly access would need to be made accessible and usable for Bennett-Watkins Fire Rescue (BWFR), on an interim basis, until future, final street connections are made.
- All-weather road access from the Town Elevated Water Tank \& Civic Center Campus would require widening, turn radii treatments, and other upgrades to the existing maintenance road for BWFR emergency access \& use.
- Additional off-site easement dedication may be required.
- The south emergency access shows current water main maintenance road \& Trail grading impacts -
- Is the maintenance road/Trail to be relocated or redirected?
- The proposed grading should be checked against the exsting 12-inch water main location and depth.


## Stormwater Management

- The proposed southerly infiltration pond will need to receive site-specific testing for soils \& infiltration rates.
- Engineered infiltration improvements will likely be required, to support sustainable long-term soil infiltration action.
- North-side "sealing" to prevent short-circuiting or bypass infiltration to the north will likely be required.
- Additional off-site easement dedications will be required.
- Infiltration pond access \& maintenance will need to be defined, and improved.
- Infiltration pond ownership \& maintenance will need to be defined and documented, including acknowledgments of compliance with Colorado Division of Water Resources impoundment requirements.
- An infiltration pond of this depth will require bottom-access all-weather ramps and emergency egress slope grading.
- The major southerly off-site basin, and southerly infiltration pond, will require an overflow route
- This overflow should consider any Lark Sparrow emergency access extension crossing, as well as Trail/Service Road crossing(s) or inundation.
- Please ensure and confirm storm sewer backups and reverse flows aren't the elevation-driven infiltration pond overflow route.
- Tract I may be viable as an overflow route, but would require at least re-grading from the current proposal. It may prove narrow as-is for overflow peak flows.
- The storm sewer entering the south infiltration pond should be set above a certain minor storm pond level to avoid standing backwater in storm sewer.
- Currently, the storm sewer will feature tailwater in all storm events, which will affect storm sewer hydraulics in addition to post-storm backwater.
- The "south ditch" and even adjacent Wood Thrush lots appear to be indundated with full infiltration pond levels.
- It is not clear how far any other backwater indundation extends into the Subdivision.
- Is the infiltration pond filled with south off-site basin runoff before being able to address Brunner Subdivision developed flow impacts?
- The basin is between 200 and 250 acres, with runoff volumes well over this pond volume for certain larger storm events - is the pond filled before basin peak?
- Need to look at south basin runoff volume and hydrograph.
- Is the Muegge Farms East Pond connecting pipe to be constructed to this infiltration pond at this time?
- The 0.3 percent trickle channel along the south lots is below the minimum required running slope of 0.6 percent.
- Does the Basin PR-1 exceed historic release at Design Point 1?
- How does the access \& maintenance of the PR-10 back of lot trickle channel work?
- Will trickle channel capacity be exceeded - does it require an eastern curb head?
- Tract H ground cover for Storm \& SS access \& maintenance?
- Maintenance service road needs to be all-weather surfacing.
- At the Lark Bunting north entry, a storm inlet and pipe is preferred over chase sections with concrete rundown slide paving for maintenance, aesthetic, and energy dissipation.

Steve, this concludes my engineering review of the application materials for the proposed Brunner Subdivision Final Plat as submitted by the applicant. Please let me know if you have any questions, or require additional information pertaining to the submitted information, or my review.

To: Steve Hebert, AICP, Bennett Planning \& Economic Development Manager
From: Gabrielle Renner, PE PTOE RSP1
Town Traffic Engineer
Date: 6/21/2021
Re: Town Land Use Case 21.15: Brunner Subdivision Final Plat
Town Traffic Engineering Review

The Brunner Subdivision Final Plat application materials were submitted on May 21, 2021. The application materials were reviewed, and the following comments have been provided by the Town Traffic Engineer.

- Southern access needs to be made accessible and usable for Bennett-Watkins Fire Rescue. Information on how this will be constructed and how general traffic will be blocked from using it should be provided.
- Per the site plan review, crosswalks should be provided on all legs of the site's intersections.
- Per the site plan review, it is preferred to provide directional ADA ramps at the crosswalks.
- Lane striping should be provided for the proposed right-turn acceleration and deceleration lanes.


# Bennett-Watkins Flipe Rescue 

District Dffice: 303-644-3572 Fax: 303-644-3401 $3554^{\text {th }}$ Street, Bennett, CO 80102
Email: LifeSafety@BennettFireRescue.org
"Striving to Preserve Life and Property"

June 14 ${ }^{\text {st }}, 2021$

Steve Hebert
Town Planner
Town of Bennett
Re: Brunner Subdivision Final Plat - Case 21.15

Planner Hebert,

In regards to the submission for Brunner Subdivision Final Plat - Case 21.15, Bennett-Watkins Fire Rescue (BWFR) has the following comments and considerations:

- The developer shall confer with Bennett Fire Protection District and ensure that the proposed development conforms to adopted (IFC) fire code standards.
- The developer shall ensure the proposed municipal water systems pertaining to hydrant distribution fire suppression is adequate to protect the proposed development as well as meet design expectations of both the Town of Bennett as well as Bennett-Watkins Fire Rescue. Considerations for design requirement shall include adopted codes and standards as well as ISO distribution and fire flow requirements.
- The applicant will be required to submit a separate site overview and fire hydrant model exhibit demonstrating the placement and distances of all fire hydrants throughout the development directly to the Fire District. This model will be reviewed for IFC Appendix C compliance. Separate fees and submission for this review are required directly with the Fire District.
- It is recommended that the developer work directly with Bennett-Watkins Fire Rescue, ISO, and Town of Bennett Staff to provide and review information pertaining to the needed fire flows for the proposed development. This information should be vetted against International Fire Code Requirements as well as ISO requirements. It is also likely that this information will also be required by the Town to include for hydraulic system modeling.
- Fire hydrant installation shall conforming to the painting and color coding system outlined in NFPA 291. The developer/install contactor is responsible for ensuring all hydrants are painted conforming to the TOB/BWFR standards.
- Areas of the development that include wildland-urban interface, greenbelts, or other open space areas are of particular concern for the Fire District. BWFR is interested in working with the developer to ensure that adequate access is provided to these areas should there be a need for vehicle access for wildfire suppression. As each development is unique, it is recommended that the developer work directly with BWFR to examine these interface areas and determine what access and service needs exist.
- Development access requirements are based on the adopted fire code applicable to the development. Two BWFR approved access points are required after the $30^{\text {th }}$ dwelling unit is
constructed. These access points are required to follow the remoteness guidelines, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses. The only exception to this requirement is if all dwelling units are constructed with approved automatic sprinkler systems and approved by BWFR.
- The applicant has addressed the second access requirement by stating that an approved emergency access road will be provided until Town streets are in place to connect the road network. This may be an adequate solution, however such plans for the emergency access road must be provided to the Fire District to review and approve prior to construction approvals.
- BWFR will incur unmet capital costs associated with new development. To address the needs of this unmet capital cost, BWFR has partnered with the Town to enact a development fee policy which establishes fees due for all new types of development. It is likely that fees will apply to the new proposed development. If the developer has additional questions or concerns regarding Fire District development fees or policies, they can contact the District Office at 303-644-3572.

Thank You


Caleb J. Connor
Fire Marshal
Life Safety Division
Bennett-Watkins Fire Rescue
303-644-3572-Headquarters / 720-893-7672 - Direct
www.BennettFireRescue.org


Traffic \& Safety
Region 1
2829 W. Howard Place
Denver, Colorado 80204

## COLORADO

Department of Transportation

Project Name: Brunner

| Print Date: |  | Highway: | Mile Marker: |
| :---: | :---: | :---: | :---: |
|  | 6/18/2021 | 036 |  |

Drainage Comments:
SBL - 6/9/2021

I have reviewed the Phase III Drainage Report for US 36, Brunner Subdivision in Bennett and have the following comments:

- Will CDOT see US 36/Colfax roadway improvement plans?
- Any change in horizontal/vertical alignment, pipe size and/or pipe material for the 24-inch box culvert at Design Point 2 will require a manhole.

SBL - 10/29/2020

I have reviewed the conceptual level Phase I Drainage Report for US 36, Brunner Subdivision in Bennett and have the following comments:

- Drainage from the site must follow historic drainage patterns at undeveloped, historic rates. Not existing rates. Flow from Basin EX-1 seems high.
- Doesn't Basin EX-2 drain to the existing culvert at DP 2 and the north under US 36? What is the condition of the existing culvert at DP 2?
- Is it possible to re-establish the historic drainage path at DP 2?


## Environmental Comments:

Both the 2040 RTP and the current draft of the 2050 MVRTP don't show any improvements planned for this segment of US-36/Colfax, so Region 1 Planning does not see any issues with this request.

## 6/1/2021:

Arch/History:
Since this is a permit, a file search for Arch and History is required. If the file search identifies anything, a more extensive report will be required. If nothing is identified, then the file search should be sufficient. For the file search contact:
Cultural File Search: http://www.historycolorado.org/oahp/file-search
email: hc_filesearch@state.co.us
The ECIS will be used to support HazMat requirements.
The applicant is required to review the ECIS to determine the level of Paleo requirements/technical reports needed.
Non-historic 4 f does not apply.
If any non-historic $6 f$ properties will be impacted or disturbed applicant shall coordinate with Veronica McCall
veronica.mccall@state.co.us
Info for the applicant:
The Permittee shall complete a stormwater management plan (SWMP) which must be prepared with good
engineering, hydrologic, and pollution control practices and include at a minimum the following components: qualified stormwater manager; spill prevention and response plan; materials handling; potential sources of pollution; implementation of control measures; site description; and site map.

In addition, the Permittee shall comply with all local/state/federal regulations and obtain all necessary permits. Permittee shall comply with CDOT's MS4 Permit. When working within a local MS4 jurisdictional boundary, the permittee shall obtain concurrence from the local MS4 that the local MS4 will provide construction stormwater oversight. The local MS4 concurrence documentation shall be retained with the SWMP.

## Traffic Comments:

## JAI 6/16/2021

I am worried that people will not know that this is a right in right out access and need to do u-tun on Colfax ave. This facility does not have a place to do u-turn. 33 vehicles making a U-turn is a safety concern.

## JAI 10/28/2020

From the trip generation it looks like this development will need a deceleration lane for left turners coming from the east on US-36. It will also need a right turn deceleration lane coming from the west on US-36.

It would be good to know if there is any traffic impacts to US-36 and SH-79. Will the south entrance be open when the site is fully developed?
Right of Way Comments:
Jerry Buffington - The plat clearly calls to the south line of the state highway as the north boundary of the property, so there is no conflict with the existing Right-of-Way. The "PROPERTY DESCRIPTION:" section (upper-left of Page 1) contains a typo referring to STATE HIGHWAY "86" rather than "36".

Andrea Carrigan ROW Property Management - No comment

## Resident Engineer Comments:

6/10/2021:
-Please provide a plan set for review.
-A right turn lane into the Brunner site is required per the State Highway Access Code.
-The proposed access to the west of the site will require right and left turn lanes from US-36 per the State Highway Access Code.
4/9/2020:
-In the future, if auxiliary or turn lanes need to be added, they will need to be done with CDOT standards for length and taper, and proper subgrade and materials.
-For future planning of access locations, the State Highway Access Code must be followed.
-The project may want to coordinate with the Muegge Farms development (to the south) for proposed roads that the Brunner site may be able to tie in to for future access needs.

## Permits Comments:

## 4-2-2020 MC

The Colorado Department of Transportation Region 1 has reviewed the referral for the Brunner Annexation and zoning. CDOT has no objection to the annexation of this property.
We understand that following the approval of zoning changes, there may be a preliminary plan, subdivision plat, or site plan. At that time CDOT would offer our referral remarks, particularly if a traffic and drainage study is included. A
new State Highway Access Permit will be required for the change in use and for any new or closed access. During the annexation process be aware that any work in the CDOT ROW, including survey, will need a special use permit. These permits are applied for on-line. The address is:
https://www.codot.gov/business/permits/utilitiesspecialuse/online-permit-application

The plat and material provided do not clarify how much RoW will be in place for SH 36 . It would be helpful if by note or plat graphics., to show how much is to be dedicated from each side of the centerline of the SH 36 .

The target is a minimum of $70-\mathrm{ft}$ from each side of the centerline for a minimum profile width of $140-\mathrm{ft}$. There appears to be a discrepancy to what is being dedicated immediately to the west at the Penrith Park platted property. Ideally, the full length of SH 36 will be improved with EB auxiliary lanes and multi-modal pathways across both properties extending easterly from the new Penrith Road RoW.

Penrith Park subdivision was granted a full movement access into their "enclave" and a secondary access onto Penrith Road, planned to flank the west side of that subdivision. Penrith Road was also given a full movement access. Notice to proceed has been issued for both so we believe portions of those accesses will be built in the short term.

The TIS and materials provided for Brunner do not explain how residents of this subdivision may return to their properties when coming from east to west. A right-in-out access with pork-chop will necessitate a U-turn or turn around movement in the Penrith Park access locations. There is no certainty or timeframe offered in the plans or materials for Brunner regarding the future alternative connection from the south through the adjacent Muegge Farm development. Therefore $100 \%$ of the traffic generated by the 87 homes must use the SH 36 right in-out only access.

This illustrates the problem we anticipated - and why we have repeatedly asked for cross-property connections for local access and /or a shorter time frame for making the off-site access connections for local traffic. SH 36 is classified as NR-B, intended to be an Arterial with roadway design standards intended for through-movement, allowing for local direct access but not of primary function. We suggest the Town concurrently advances better connectivity and access for local residents when considering such residential enclaves.

RS 06-15-2021

US 36 needs to be a minimum of $140-\mathrm{ft}$ RoW. Half of which should be dedicated from south side of the roadway centerline The plat does not clearly show how much RoW is planned, and how much is dedicated from the south side

The Utility Accommodation Code allows for sharing the RoW, and if-when necessary, should be positioned to the outside edge of RoW. All Utilities in CDOT RoW are by permit. The proposed 15 - ft utility easement needs to be wholly outside of the 140-ft RoW.

It is recommended that a cross section of RoW be provided showing the public improvements on US 36 showing: Storm drainage (ditch or storm inlets?), curb-gutter or shoulder, utilities, center \& outside medians, lanes of traffic, multi-use sidewalk-pathway, landscape areas, etc. A site plan was not included for our review.

The plat indicates that this approval is to be signed by the Town of Bennett. At the time of our previous review $(04 / 20)$ the property was not proposed to be annexed. This does change the maintenance responsibility of SH 36 RoW to the Town. The Town should advise CDOT and clarify by a plat note, if a center median (public improvement) is to be provided by this development and ensure a pro-rata share of costs are appropriately escrowed.

Omitted from the plan set and TIS, is the indication of the proposed local roadway network for the town. This includes E-W and N-S roadways and appropriate connections to SH 36 at spacing in compliance to the Access Code. This parcel may be entitled to 1 access, but is the position appropriate and will it align with planned roadways to the north of 36 ? To minimize the proliferation of access along US 36, both shared and cross property access needs to be planned for - this proposed plat appears to omit offering any ties (access easements) to the east \&
west. Please provide a contextual plan showing the proposed local roadway network and that there are short-term alternative to utilizing the state highway for short local trips. We presume the fire department will require a $2^{\text {nd }}$ means of emergency egress, and it is not clear where the southern connection leads to.

## RS- 06-02-21

I advocate that all of the ROW of US 36 adjacent to this property should be annexed to the Town. The requirement to annex adjacent ROW was outlined by State Legislature decades ago relative to flagpole annexation practices \& the responsibility of the local agency in-turn to maintain such ROW. https://codes.findlaw.com/co/title-43-transportation/co-rev-st-sect-43-2-135.html AKA Colorado Revised statutes Title 43, Transportation section 43-2-135 Division of Authority over streets. At this location, it serves two purposes: Clarifies who is responsible to build \& maintain public improvements along the edge of roadway. This has been a recurring problem in incorporated area, especially for storm drainage. Secondly, routine maintenance \& first responders. The ROW need to be annexed so local police have standing and authority.

Anticipate comments at time of site plan \& plat. In hindsight, the adjacent Penrith Park should have provided a crossproperty access to avoid patterns of lengthy cul-de-sacs, which studies have shown are not efficient or sustainable for connectivity and access. SH 36 is a limited access highway and therefore land entitlements needs to protect the function-integrity by smarter patterns of land use and more efficient roadway networks.

- RS 04-15-20

10-27-2020, Access to the state highway will require an access permit from our office. We will want the traffic engineer to review the proposed traffic movements in conjunction with the state of Colorado access code to see if turn lanes will be warranted.

Any signing for this development must be on-premise and cannot be either partly or wholly in the State Highway Right-of-Way. Signing must also comply with all applicable rules governing outdoor advertising in Colorado per the State rules, 2 CCR 601-3

## 10-27-2020, Steve Loeffler

Sketch Plan Who is the 20 foot ROW Dedication going to and when? Need the CDOT ROW identified and labeled. Will need a set of plans for all of the work in the CDOT ROW. RLW

Clearly show and label the current CDOT ROW. Need plan set showing the improvements in the CDOT ROW. RLW June 72021

## BRUNNER SUBDIVISION FILING NO. 1 FINAL PLAT

OWNERSHIP AND DEDICATION:
THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHP 3
SOUTH, RANGE 63 WEST OF THE GTH PRINCIPAL MERIDAN, COUNTY OF ADAMS, STATE OF SOUTH, RANGE 63 WEST OF THE GTH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF
COLORADO, LESS THAT PORTION DESCRIBED IN WARRANTY DEED RECORDED DECEMBER 8
 RECORDED OCTOBER 3,1984 IN BOOK 2923 PAGE 876 AND LESS THAT PORTION NOW PLATTED
AS PENRITH PARK AMENDED RECORDED DECEMBER 2002 AT RECEPTION NO. C105985, AS PENRITH PARK AMENED
ADAMS COUNTY RECORDS.

HAVE LAID OUT, SUBDIVIDED AND PLATTED SAD LAND AS PER DRAWNG HEREON CONAINEDUNDER THE NAME AND STYLE OF "BRUNNER SUBDVIVIION, FLLING NO. 1 " A SUBDVIVIION OF A PART OF THE
TOWN OF BENETT, COUNTY OF ADAMS, STATE OF COLORADO, AND BY THESE PRESENTS DO HEREB DEDICATE TO THE TOWN OF BENNETT THE STREETS, AVENUES AND OTHER PUBLIC PLACES, INCLUDING
TRACTS, AS SHOWN ON THE ACCOMPANYING PLAT FOR THE PUBLIC USE THEREOF FOREVER AND DOES FARTHER DEDICATE TO THE USE OF THE TOWN OF BENNETT AND ALL SERVING PUBLIC UTLITIES AND OTHER APPROPRATATENTTITES THOSE PORTIONS OF SAID REAL PROPERTY WHICH ARE SO DESIGNATED

IT IS EXPRESSLY YNDERSTODD AND AGREED BY THE UNDERSIGNED THAT ALL EXPENSES AND COSTS SYSTEM WORKS AND LINES, GAS SERVICE LINES, ELECTRICAL SERVIICE WORKS AND LINES, LANDSCAPING, CURBS, GUTTERS, STREET PAVEMENT, SIDEWALKS, AND OTHER SUCH UTLITTIES AND SERVICESS SHALL BE CUARANTEED AND PAD FOR BY THE OWNER OR ARRANGEMENTS MADE BY THE OWNER THEREE
WHICH ARE APPROVED BY THE TOWN OF BENNET, COLORADO: THAT SUCH SUMS SHAL NOT BE
 THE TOWN OF BENN ETT SHALL BECOME THE SOLE PROPERTY OF SAID TOWN OF BENNETT, EXC
PRIVATE ROADWAY CURBS, GUTTER AND PAVEMENT AND ITEMS OWNED BY MUNIIIPALTYY FRANCHISED UTLITTES, AND/OR OTHER SERVING P PBLLLC UTLITTISS, WHICH WHEN C CNSTRUCTED OR INSTALLED SHALL REMAIN AND/OR BECOME THE PROPERTY OF SUCH MUNICIPALITY FRANCHISED UTLLTITS, AND/OR OTHER SERVING PUBLIC ENTTIESS, AND SHALL NOT BECOME THE PROPERTY OF T

EXECUTEDTHIS $\qquad$ , 20 -
owner: day of _As As $\qquad$ of
MGV 36 South Land Investments, LLC, A COLORADO LIMITED LABLITY COMPANY
state of colorado )
COUNTY Of DENVER (SS:
THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFFRE ME THIS_DAY OF 20_ BY JIM MARSHALL AS

NOTARY PUBLIC
$\overline{\text { MY COMMISSION EXPIRES }}$


## MERIDAN TOWN OF BENNETT, ADAMS COUNTY STATE OF COLORADO



VICINITY MAP
$\frac{\text { notes: }}{\text { 1. THE BASIS OF beARINGS FOR THIS PLAN ARE BASED on the south LINE OF THE SOUTHWEST QUARTER OF SECTION } 28}$ HAVING A BEARING OF N89944'09"W.
2. DATE OF SURVEY WAS NOVEMBER 08, 201
3. THE US SURVEY FOOT WAS THE UNIT UTLLIZED IN THE SURVEY. THE US SURVEY FOOT IS EQUAL TO 1.000002 INTERNATIONAL FEET OR 0.304801 METERS
4. THE PROPERTY WITHIN THE BOUNDARIES OF THIS FINAL PLAT IS SUBJECT TO RESERVATIONS, RESTRICTIONS, COVENANTS AND EASEMENTS OF RECORD OR IN PLACE.
5. NON-EXCLUSIVE 8-FOOT FRONT LOT UTILITY EASEMENTS LOCATED AS SHOWN HEREBY GRANTED FOR THE NSTALLATION, MANTENANCE, AND OPERATION OF UTLITIES AND DRANAGE FACIITIES, INCLUDING, BUT NOT LIMIEE TO STREET LIGHTS, ELECTRIC LINES, GAS LINES, CABLE TELEVVIIOL LINES, FIBER OLTII LINES, AND AND REPLACEMENT OF SUCH LINES
6. NON-EXCLUSIVE 10-FOOT UTLLITY EASEMENTS LOCATED ALONG THE REAR LOT LINES HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTLITIIES AND DRAINAGE FACILTIES, INCLUDING, BUT NOT
 LINES.
7. NON-EXCLUSIVE 5-FOOT UTLLTTY EASEMENTS ALONG SIDE LOT LINES SHOWN ARE HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATIN OF UTLTIEVS AND DRAINAGE FACPITIIES, INCLUDING, BUT NO IMITED AS WEL AS PIPPET RIGH FOR INGRESS AND EGRESS FOR INSTALATION MANTENANCE AND LINES, AS WELL AS PERPETUAL
REPLACEMENT OF SUCH LINES
8. STATE HIGHWAY RIGHT-OF-WAY MAINTENANCE: ANY IMPROVEMENTS OUTSIDE THE FLOWLINE OR BEYOND THE SIEEWALK AND LANDSCAPING, WHICH ARE INSTALLED AT THE DIRECTION OF LOCAL LAND UST LURISDICTION SHALL BE MAINTAINED BY THE DEVELOPER, HOMEOWNERS ASSOCIATION, METROPOLITAN DISTRICT, THEIR HEIRS R Assign
9. TRACTS A, B, I AND J ARE DEDICATED TO THE TOWN OF BENNETT AS RIGHT OF WAY

## ADD NOTE: MONUMENTS,ORNAMENTAL

COLUMNS, WINDOW WELLS, COUNTERFORTS, PATIOS, DECKS, RETAINING WALLS AND THEIR ENCROACH INTO UTIUTY EASEMENTS


OWN CERTIFICATION:
 OF THE TOWN OF BENNETTON BEHAL OF OF THE TOWN OF BENNETT, AEREBY ACKNOWLEDGES SAID PLAT UPQ
PURPOSES INOICATED THEREON.

Mayor
ATTEST: TOWN CLER
SURVEYOR'S CERTIFICATE:
,ELUAH FRANE, A REGITTERED PROFESSIIONAL LAND SURVEYOR IN THE STATE OF
COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLATW COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS
MADE UNDER MY SUPERVIIION AND THE MONUMENTS SHOWN THEREN ACTUALLY EXIIT AND THIS PLAT ACCURATELY REPRESENTS SALD SURVEY.

ELUAH FRANE P.L.S. \# 38376
DATE

ATTORNEY'S CRRTIFICATE:
AN ATTROREV AT LAW, DO HEREBY AND THAT TTILE TO SUCH LAND IS IN THE DEDICATORS FREE AND CLEAR OF ALL
 EEFLECTED IN SCHEDULE B-2 OF THE TITLE INSURANCE COMMITMENT


CLERKS AND RECORDER'S CERTIFICATE:
$\overline{\text { Flle no. }} \overline{\text { MAP no. }}$ reception no.
ACCEPTED For Flling in the office of the clerk and recorder of adams COUNTY AT BRIGHTON, COLORADO, ON TH
20 O'ClOCK, AT
$\overline{\text { ADAMS COUNTY CLERK AND RECORDER }}$
BY:

> CLIENT
> MGV 36 SOUTH LAND INVESTMENTS, LLC PO BOX 4701

GREENWOOD VILLAGE, CO 80155

| ISSUED DATE: | 5-21-21 |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PROJECT <br> NUMBER: | 20025 |  |  |  |  |
| SHEET |  |  |  | OF | 4 |

STATE HIGHWAY 36 (100' R.O.W.)


## BRUNNER SUBDIVISION FILING NO. 1 FINAL PLAT <br> A SUBDIVISION IN THE SOUTHWEST $1 / 4$, SECTION 28 , TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6 TH PRINCIPAL

MERIDIAN, TOWN OF BENNETT, ADAMS COUNTY, STATE OF COLORADO


BOOK 3996
PAGE 497
PAGE 497
(NOTA ART)

| 6 Inverness Ct. E. Suite, 125 Englewood, CO 80112 303.925 .0544 T 303.925 .0547 F www. $2 \mathrm{ncivil} . \mathrm{com}$ |  | CLIENT <br> MGV 36 SOUTH LAND INVESTMENTS, LLC $\text { РО BOX } 4701$ <br> GREENWOOD VILLAGE, CO 80155 | ISSUED DATE: |  | 21-21 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PROJECT NUMBER: |  | 0025 |
|  |  | S HEET | 0 | F 4 |


| CURVE TABLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CURVE\# | ARC Length | Radius | delta angle | CHORD bearing | CHORD LENGTH |
| C1 | 4.65 | 45.00 | $5^{\circ} 55^{\prime} 12^{\prime \prime}$ | S03*36'15"W | 4.65 |
| C2 | 32.28 | 45.00 | 41005'57" | S27006'49"W | 31.59 |
| С3 | 33.46 | 45.00 | 42 ${ }^{\circ} 366^{\prime} 3^{\prime \prime}$ | S6895749"W | 32.69 |
| C4 | 98.54 | 63.00 | 89937 ${ }^{\prime \prime 1}{ }^{\prime \prime}$ | S45 ${ }^{\circ} 7^{\prime} 11^{\prime \prime W}$ | 88.80 |
| C5 | 59.44 | 38.00 | $89^{\circ} 7^{7} 12^{\prime \prime}$ | S45 ${ }^{\circ} 7^{\prime} 15^{\prime \prime} \mathrm{W}$ | 53.56 |
| C6 | 39.27 | 25.00 | 90 $0^{\circ} 0^{\circ} 00^{\prime \prime}$ |  | 35.36 |
| C7 | 39.27 | 25.00 | 9000'00" | S44*44'09"E | 35.36 |
| C8 | 22.37 | 45.00 | 28²8'57" | N75 ${ }^{\circ} 99^{\prime 4} 1{ }^{\prime \prime} \mathrm{W}$ | 22.14 |
| c9 | 32.51 | 45.00 | $41^{\circ} 3^{3} 311$ | N40 ${ }^{\circ} 33^{\prime} 13^{\prime \prime} \mathrm{W}$ | 31.81 |
| C10 | 16.08 | 45.00 | 20²8'30" | N09 ${ }^{\circ} 7^{1} 13^{\prime \prime} \mathrm{W}$ | 16.00 |
| C11 | 99.35 | 63.00 | 90²1'11" | N44*33'33"W | 89.37 |
| C12 | 59.92 | 38.00 | 90²1'11" | N44*33'33"W | 53.91 |
| C13 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C14 | 26.82 | 17.00 | 90 ${ }^{\circ} 2^{\prime} 48^{\prime \prime}$ | S44*32'45"E | 24.12 |
| C15 | 26.59 | 17.00 | 89937'12" | S45 ${ }^{\circ} 27$ '115"W | 23.96 |
| C16 | 26.81 | 17.00 | $90^{\circ} 1^{1111 "}$ | N44033'33"W | 24.12 |
| C17 | 26.60 | 17.00 | 8993849" | N45 ${ }^{\circ} 26{ }^{\prime 27}{ }^{\text {²E }}$ | 23.97 |
| C18 | 26.82 | 17.00 | 90 ${ }^{\circ} 2^{\prime 2} 48{ }^{\prime \prime}$ | S44*32'45"E | 24.12 |
| C19 | 26.59 | 17.00 | 89937'12" |  | 23.96 |
| C20 | 26.81 | 17.00 | 90²1'11" | N44*33'33"W | 24.12 |
| C21 | 26.60 | 17.00 | 8993849" | N45²6'27"E | 23.97 |
| C22 | 59.94 | 38.00 | 90²2'48" | S44*32'44"E | 53.92 |
| C23 | 99.38 | 63.00 | 90²2'48" | S44932'44"E | 89.39 |
| C24 | 8.37 | 45.00 | 10³9'33" | S04* ${ }^{1} 107^{\prime \prime}$ E | 8.36 |
| C25 | 31.17 | 45.00 | 39941'20" | S29951'34"E | 30.55 |
| C26 | 31.44 | 45.00 | 40 ${ }^{\circ} 11^{15} 5^{\prime \prime}$ | S69943'11"E | 30.81 |
| C27 | 26.81 | 17.00 | 90²1'11" | N44*33'33"W | 24.12 |



## BIENINETH SCIOOIL DISTMPICT 29J

June 10, 2021

Town of Bennett
207 Muegge Way
Bennett, CO 80102

## RE: Case No. 21.15-Brunner Subdivision Final Plat

Case No. 21.16 - Brunner Subdivision Site Plan

Dear Steve;
Bennett School District 29J is pleased to review the Final Plat and Site Plan proposals for the Brunner Subdivision. The application is for 20.17 acres of land being platted for 87 single family homes at a density of 7.14 du/acres.

The Application proposes residential development for property located within the School District's boundaries and, therefore, will have an impact on the School District's responsibility to provide adequate school facilities. Consequently, the School Dedication requirements must be met per Division 5 of the Bennett Municipal Code. Based upon this proposal, we calculate the following dedication requirements:


Based upon these above calculations, the School District is requesting a cash-in-lieu payment of $\$ 182,305.89$ in one lump sum at the time of final plat approval.

The District is engaged in a Master Plan update that will result in forecasting growth within the District boundaries and the approximate location of new school sites and associated facilities. We are working with the Town's and Counties to assist in the analysis and planning to ensure the best outcome for the communities moving forward. The majority of our work should be completed the first half of the year. We believe this will have a positive benefit for Brunner Subdivision.

## BINNEITI SCHOOL DISTRICT 29J

The School District respectfully requests the opportunity to amend and supplement this letter, as appropriate, to update the Town Planning Department and the Subdivision Agreement concerning cash in-lieu payment as a way to mitigate the impact the development will have on the schools. The District looks forward to working with the developer to address the dedication as they move through the site planning and platting process.


1889 York Street
Denver, CO 80206
(303) 333-1105

FAX (303) 333-1107
E-mail: Isc@Iscdenver.com

May 20, 2021
Mr. John Vitella
MGV 36 South Land Investments, LLC
PO Box 4701
Greenwood Village, CO 80155

Re: Brunner Property Traffic Impact Analysis<br>Bennett, CO<br>LSC \#200690

Dear Mr. Vitella:
In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Brunner Property residential development. As shown on Figure 1, the site is located south of E. Colfax Avenue (US 36) and east of N. Penrith Road in Bennett, Colorado.

## REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; an adjustment of the existing traffic for the ongoing pandemic; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

## LAND USE AND ACCESS

The site is proposed to include 87 single-family dwelling units. Right-in/right-out access is proposed to E. Colfax Avenue (US 36) and full movement cross access is proposed to the south as shown in the conceptual site plan in Figure 2. The cross access to the south will be emergency vehicles only until the Muegge Farms project buildout reaches this area.

## ROADWAY AND TRAFFIC CONDITIONS

## Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- E. Colfax Avenue (US 36) is an east-west, two-lane highway north of the site that is classified as a non-rural arterial (NR-B) by CDOT. The intersections in the study area are stop-sign controlled. The posted speed limit in the vicinity of the site is 55 mph . The posted speed limit may drop to 45 mph as the area develops but this will need to be coordinated between the Town and CDOT.


## Existing Traffic Conditions

Figure 3a shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in April, 2021.

## Adjustment for the Ongoing Pandemic

The volumes in Figure 3b are based on the 2021 total traffic volumes from attached Figure 8 of the 2018 Penrith Park TIA by LSC with the through traffic volumes adjusted higher where appropriate based on the recent traffic count volumes in Figure 3a. The daily volume on E. Colfax Avenue (US 36) is from the attached CDOT straight line diagram with one year of growth.

## 2025 and 2041 Background Traffic

Figure 4 shows the estimated 2025 background traffic which assumes the through traffic on E. Colfax Avenue (US 36) grown for four years at a two percent annual growth rate plus partial development of the area north of the railroad tracks.

Figure 5 shows the estimated 2041 background traffic based on the 2040 total traffic from Figure 9 (attached) of the 2018 Penrith Park TIA by LSC with the through traffic volumes grown for one year at a two percent annual growth rate. Two percent is conservative because the CDOT 20-year factor for E. Colfax Avenue (US 36) is 1.35 which relates to an annual growth rate of about 1.5 percent.

## Existing, 2025, and 2041 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in Figures 3b, 4, and 5 were analyzed as appropriate to determine the existing, 2025, and 2041 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- E. Colfax Avenue (US 36)/Palmer Avenue: All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to do so through 2025. By 2041, all movements are expected to operate at LOS "D" or better during both peak-hours.
- E. Colfax Avenue (US 36)/Penrith Park Access: All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peakhours and are expected to do so through 2025. By 2041, all movements are expected to operate at LOS "C" or better during both peak-hours.
- E. Colfax Avenue (US 36)/Bennett Community Center Access: All movements at this unsignalized intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better through 2041.
- E. Colfax Avenue (US 36)/McKinley Drive: All movements at this unsignalized intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better through 2041.
- E. Colfax Avenue (US 36)/RIRO Site Access: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2041.


## TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from Trip Generation, $9^{\text {th }}$ Edition, 2012 by the Institute of Transportation Engineers (ITE) for the proposed land use.

The site is projected to generate about 821 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 16 vehicles would enter and about 48 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 55 vehicles would enter and about 32 vehicles would exit.

## TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways for the short-term (2025) and buildout conditions (2041). The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

## TRIP ASSIGNMENT

Figure 7a shows the estimated 2025 site-generated traffic volumes based on the 2025 directional distribution percentages (from Figure 6) and the trip generation estimate (from Table 2). Figure 7a assumes emergency vehicle access to the south.

Figure 7 b shows the estimated 2041 site-generated traffic volumes based on the 2041 directional distribution percentages (from Figure 6) and the trip generation estimate (from Table 2). Figure 7 b assumes full movement cross access to the south.

## 2025 AND 2041 TOTAL TRAFFIC

Figure 8 shows the 2025 total traffic which is the sum of the 2025 background traffic volumes (from Figure 4) and the 2025 site-generated traffic volumes (from Figure 7a). Figure 8 also shows the recommended 2025 lane geometry and traffic control.

Figure 9 shows the 2041 total traffic which is the sum of 2041 background traffic volumes (from Figure 5) and the 2041 site-generated traffic volumes (from Figure 7b). Figure 9 also shows the recommended 2041 lane geometry and traffic control.

## PROJECTED LEVELS OF SERVICE

The intersections in Figures 8 and 9 were analyzed to determine the 2025 and 2041 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- E. Colfax Avenue (US 36)/Palmer Avenue: All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peakhours through 2041.
- E. Colfax Avenue (US 36)/Penrith Park Access: All movements at this unsignalized intersection are expected to operate at LOS "C" or better during both morning and afternoon peak-hours through 2041.
- E. Colfax Avenue (US 36)/Bennett Community Center Access: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2041.
- E. Colfax Avenue (US 36)/McKinley Drive: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peakhours through 2041.
- E. Colfax Avenue (US 36)/RIRO Site Access: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2041.


## CONCLUSIONS AND RECOMMENDATIONS

## Trip Generation

1. The site is projected to generate about 821 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peakhour, about 16 vehicles would enter and about 48 vehicles would exit the site. During the afternoon peak-hour, about 55 vehicles would enter and about 32 vehicles would exit.

## Projected Levels of Service

2. All movements at the intersections analyzed are expected to operate at LOS " $D$ " or better during both morning and afternoon peak-hours through 2041.

## Conclusions

3. The impact of the Brunner Property residential development site can be accommodated by the existing roadway network with the following recommendations.

## Recommendations

4. An eastbound right-turn deceleration lane should be constructed on E. Colfax Avenue (US 36) approaching the right-in/right-out site access. This lane will be continuous with the existing eastbound acceleration lane to the west.
5. A northbound to eastbound acceleration lane should be constructed on E. Colfax Avenue (US 36) departing the right-in/right-out site access. This lane will be continuos with the short eastbound right-turn lane approaching the Bennett Community Center.
6. Emergency vehicle access should be provided to the south. This access will become a full movement public access through the future Muegge Farms development over time.
7. A raised porkchop-style island should be provided on the site access approach to E. Colfax Avenue (US 36) to discourage left-turn movements.

*     *         *             *                 * 

We trust our findings will assist you in gaining approval of the proposed Brunner Property residential development. Please contact me if you have any questions or need further assistance.

Sincerely,

```
                        FSODSO LCEMD
```

LSC TRANSPORTATION CONSULTANTS, INC.


Christopher S. McGranahan, PE, PTOE
Principal
CSM/wc

$$
5-20-21
$$

Enclosures: Tables 1 and 2
Figures 1-9
Traffic Count Reports
E. Colfax Avenue (US 36) Straight Line Diagram

Figures 8 and 9 from 2018 Penrith Park TIA by LSC
Level of Service Definitions
Level of Service Reports
W:\LSC\Projects \2020\200690-BrunnerProperty \Report \April-2021\BrunnerProperty-052021.wpd


| Trip Generating Category | Quantity | Table 2 <br> ESTIMATED TRAFFIC GENERATION <br> Brunner Property <br> Bennett, CO <br> LSC \#200690; May, 2021 <br> 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 |
| CURRENTLY PROPOSED LA Single-Family Housing ${ }^{(2)}$ | 87 DU ${ }^{(3)}$ | 9.44 | 0.185 | 0.555 | 0.624 | 0.366 | 821 | 16 | 48 | 55 | 32 |
| Notes: <br> (1) Source: Trip Generation, <br> (2) ITE Land Use No. 210 - Si <br> (3) DU = Dwelling Units | of Transporta mily Detached | Enginee ousing | 10th | on, 20 |  |  |  |  |  |  |  |













## COUNTER MEASURES INC.

```
1889 YORK STREET
DENVER.COLORADO
303-333-7409
```

File Name : ACCCOLFAX
Site Code : 00000008
Start Date : 4/13/2021 Page No : 1
Groups Printed- VEHICLES

|  | Southbound |  |  |  | COLFAX AVENUE <br> Westbound |  |  |  | ACCESS ROAD Northbound |  |  |  | COLFAX AVENUE Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 0 | 0 | 0 | 0 | 1 | 17 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 25 |
| 06:45 AM | 0 | 0 | 0 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 | 0 | 0 | 32 |
| Total | 0 | 0 | 0 | 0 | 2 | 37 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 13 | 0 | 0 | 57 |


| 07:00 AM | 0 | 0 | 0 | 0 | 3 | 23 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 15 | 1 | 0 | 43 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 AM | 0 | 0 | 0 | 0 | 1 | 18 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 21 | 4 | 0 | 46 |
| 07:30 AM | 0 | 0 | 0 | 0 | 4 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 2 | 0 | 48 |
| 07:45 AM | 0 | 0 | 0 | 0 | 1 | 38 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 14 | 0 | 0 | 55 |
| Total | 0 | 0 | 0 | 0 | 9 | 104 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 67 | 7 | 0 | 192 |
| 08:00 AM | 0 | 0 | 0 | 0 | 3 | 25 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 1 | 0 | 37 |
| 08:15 AM | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 25 |
| Total | 0 | 0 | 0 | 0 | 4 | 36 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 18 | 1 | 0 | 62 |


| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 29 | 0 | 0 | 38 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:15 PM | 0 | 0 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 27 | 1 | 0 | 40 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 33 | 0 | 0 | 60 |
| 04:45 PM | 0 | 0 | 0 | 0 | 4 | 18 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 28 | 0 | 0 | 52 |
| Total | 0 | 0 | 0 | 0 | 5 | 54 | 0 | 0 | 1 | 0 | 12 | 0 | 0 | 117 | 1 | 0 | 190 |


| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 39 | 0 | 0 | 56 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05:15 PM | 0 | 0 | 0 | 0 | 2 | 19 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 33 | 0 | 0 | 55 |
| 05:30 PM | 0 | 0 | 0 | 0 | 1 | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 30 | 0 | 0 | 44 |
| 05:45 PM | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 31 |
| Total | 0 | 0 | 0 | 0 | 4 | 54 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 124 | 0 | 0 | 186 |


| Grand Total | 0 | 0 | 0 | 0 | 24 | 285 | 0 | 0 | 6 | 0 | 24 | 0 | 0 | 339 | 9 | 0 | 687 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 | 92.2 | 0.0 | 0.0 | 20.0 | 0.0 | 80.0 | 0.0 | 0.0 | 97.4 | 2.6 | 0.0 |  |
| Total \% | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 41.5 | 0.0 | 0.0 | 0.9 | 0.0 | 3.5 | 0.0 | 0.0 | 49.3 | 1.3 | 0.0 |  |

## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: ACCES ROAD
DENVER.COLORADO
File Name : ACCCOLFAX 303-333-7409

Site Code : 00000008
Start Date: 4/13/2021 Page No : 2



## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: ACCES ROAD
DENVER.COLORADO
File Name : ACCCOLFAX 303-333-7409

Site Code : 00000008
Start Date: 4/13/2021 Page No : 2

|  | Southbound |  |  |  |  | COLFAX AVENUE <br> Westbound |  |  |  |  | ACCESS ROAD Northbound |  |  |  |  | COLFAX AVENUE Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{\|r\|} \hline \text { Ped } \\ \mathrm{s} \\ \hline \end{array}$ | App. <br> Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. <br> Total | $\begin{gathered} \text { Int. } \\ \text { Total } \end{gathered}$ |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersecti on | 04:30 PM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume | 0 | 0 | 0 | 0 | 0 | 6 | 71 | 0 | 0 | 77 | 1 | 0 | 12 | 0 | 13 | 0 | 133 | 0 | 0 | 133 | 223 |
| Percent | 0.0 | 0.0 | 0.0 | 0.0 |  | 7.8 | 92. | 0.0 | 0.0 |  | 7.7 | 0.0 | 92. | 0.0 |  | 0.0 | 100 .0 | 0.0 | 0.0 |  |  |
| 04:30 Volume | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 1 | 0 | 7 | 0 | 8 | 0 | 33 | 0 | 0 | 33 | 60 |
| Peak |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.929 |
| Factor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Int. |  |  |  |  |  | 04:45 | PM |  |  |  | 04:30 | PM |  |  |  | 05:00 | PM |  |  |  |  |
| Volume | 0 | 0 | 0 | 0 | 0 | 4 | 18 | 0 | 0 | 22 | 1 | 0 | 7 | 0 | 8 | 0 | 39 | 0 | 0 | 39 |  |
| Peak |  |  |  |  |  |  |  |  |  | 0.87 |  |  |  |  | 0.40 |  |  |  |  | 0.85 |  |
| Factor |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  | 6 |  |  |  |  | 3 |  |



## Route 036C From 86 to 90




It may appear that information is missing from the straight line diagram. If so, reduce the number of miles/page and re-submit the request.



## LEVEL OF SERVICE DEFINITIONS

From Highway Capacity Manual, Transportation Research Board, 2016, 6th Edition
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)
Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

| LOS | Average Vehicle Control Delay | Operational Characteristics |
| :---: | :---: | :---: |
| A | <10 seconds | Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn. |
| B | 10 to 15 seconds | Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn. |
| C | 15 to 25 seconds | Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane. |
| D | 25 to 35 seconds | This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points. |
| E | 35 to 50 seconds | The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach. |
| F | >50 seconds | The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns. |



| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | ---: |
| Conflicting Flow All | 125 | 0 | - | 0 | 238 | 108 |
| Stage 1 | - | - | - | - | 108 | - |
| Stage 2 | - | - | - | - | 130 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1462 | - | - | - | 750 | 946 |
| $\quad$ Stage 1 | - | - | - | - | 916 | - |
| Stage 2 | - | - | - | - | 896 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1462 | - | - | - | 744 | 946 |
| Mov Cap-2 Maneuver | - | - | - | - | 744 | - |
| Stage 1 | - | - | - | - | 909 | - |
| Stage 2 | - | - | - | - | 896 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0.7 | 0 | 9.4 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1462 | - | - | - | 744 | 946 |
| HCM Lane V/C Ratio | 0.008 | - | - | -0.031 | 0.026 |  |
| HCM Control Delay (s) | 7.5 | - | - | - | 10 | 8.9 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th \%tile Q(veh) | 0 | - | - | - | 0.1 | 0.1 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.8 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | A | 个 | Mr |  |
| Traffic Vol, veh/h | 67 | 10 | 12 | 104 | 29 | 37 |
| Future Vol, veh/h | 67 | 10 | 12 | 104 | 29 | 37 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 76 | 11 | 14 | 118 | 33 | 42 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 87 | 0 | 222 | 76 |
| Stage 1 | - | - | - | - | 76 | - |
| Stage 2 | - | - | - | - | 146 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1509 | - | 766 | 985 |
| Stage 1 | - | - | - | - | 947 | - |
| Stage 2 | - | - | - | - | 881 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1509 | - | 759 | 985 |
| Mov Cap-2 Maneuver | - | - | - | - | 759 | - |
| Stage 1 | - | - | - | - | 947 | - |
| Stage 2 | - | - | - | - | 873 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.8 |  | 9.5 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 871 | - | - | 1509 | - |
| HCM Lane V/C Ratio |  | 0.086 | - | - | 0.009 | - |
| HCM Control Delay (s) |  | 9.5 | - | - | 7.4 | - |
| HCM Lane LOS |  | A | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |  |
| Lane Configurations | 4 | 「 | ${ }^{*}$ | 4 | * ${ }^{\prime}$ |  |  |
| Traffic Vol, veh/h | 103 | 1 | 2 | 115 | 1 | 2 |  |
| Future Vol, veh/h | 103 | 1 | 2 | 115 | 1 | 2 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control F | Free | Free | Free | Free | Stop | Stop |  |
| RT Channelized | - | None | - | None | - | None |  |
| Storage Length | - | 25 | 50 | - | 0 | - |  |
| Veh in Median Storage, \# | \# 0 | - | - | 0 | 0 | - |  |
| Grade, \% | 0 | - | - | 0 | 0 | - |  |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 117 | 1 | 2 | 131 | 1 | 2 |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.8 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ | $\mathbf{1}$ | 个 | Mr |  |
| Traffic Vol, veh/h | 95 | 20 | 9 | 88 | 22 | 19 |
| Future Vol, veh/h | 95 | 20 | 9 | 88 | 22 | 19 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 108 | 23 | 10 | 100 | 25 | 22 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 131 | 0 | 228 | 108 |
| Stage 1 | - | - | - | - | 108 | - |
| Stage 2 | - | - | - | - | 120 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1454 | - | 760 | 946 |
| Stage 1 | - | - | - | - | 916 | - |
| Stage 2 | - | - | - | - | 905 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1454 | - | 755 | 946 |
| Mov Cap-2 Maneuver | - | - | - | - | 755 | - |
| Stage 1 | - | - | - | - | 916 | - |
| Stage 2 | - | - | - | - | 899 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.7 |  | 9.6 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 833 | - | - | 1454 | - |
| HCM Lane V/C Ratio |  | 0.056 | - | - | 0.007 | - |
| HCM Control Delay (s) |  | 9.6 | - | - | 7.5 | - |
| HCM Lane LOS |  | A | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | 0 | - |




| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | $\mathbf{1}$ | 个 | 1 |  |
| Traffic Vol, veh/h | 133 | 33 | 41 | 71 | 19 | 24 |
| Future Vol, veh/h | 133 | 33 | 41 | 71 | 19 | 24 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 151 | 38 | 47 | 81 | 22 | 27 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 156 | 1 | 4 | 111 | 1 | 3 |
| Future Vol, veh/h | 156 | 1 | 4 | 111 | 1 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 177 | 1 | 5 | 126 | 1 | 3 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | 1 | 个 | Mr |  |
| Traffic Vol, veh/h | 141 | 31 | 13 | 96 | 6 | 5 |
| Future Vol, veh/h | 141 | 31 | 13 | 96 | 6 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 160 | 35 | 15 | 109 | 7 | 6 |


| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 0 | 0 | 195 | 0 | 299 | 160 |
| Stage 1 | - | - | - | - | 160 | - |
| Stage 2 | - | - | - | - | 139 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | -2.218 | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | - | - | 1378 | - | 692 | 885 |
| $\quad$ Stage 1 | - | - | - | - | 869 | - |
| Stage 2 | - | - | - | - | 888 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1378 | - | 684 | 885 |
| Mov Cap-2 Maneuver | - | - | - | - | 684 | - |
| Stage 1 | - | - | - | - | 869 | - |
| Stage 2 | - | - | - | - | 878 | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.9 | 9.8 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 763 | - | -1378 | - |  |
| HCM Lane V/C Ratio | 0.016 | - | -0.011 | - |  |
| HCM Control Delay (s) | 9.8 | - | - | 7.6 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 4 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{7}$ | $\mathbf{7}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 45 | 105 | 105 | 25 | 45 | 85 |
| Future Vol, veh/h | 45 | 105 | 105 | 25 | 45 | 85 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 119 | 119 | 28 | 51 | 97 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 147 | 0 | - | 0 | 340 | 119 |  |
| Stage 1 | - | - | - | - | 119 | - |  |
| Stage 2 | - | - | - | - | 221 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1435 | - | - | - | 656 | 933 |  |
| $\quad$ Stage 1 | - | - | - | - | 906 | - |  |
| Stage 2 | - | - | - | - | 816 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1435 | - | - | - | 632 | 933 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 632 | - |  |
| Stage 1 | - | - | - | - | 873 | - |  |
| Stage 2 | - | - | - | - | 816 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 2.3 | 0 | 10 |
| HCM LOS |  | $B$ |  |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1435 | - | - | - | 632 | 933 |
| HCM Lane V/C Ratio | 0.036 | - | - | -0.081 | 0.104 |  |
| HCM Control Delay (s) | 7.6 | - | - | - | 11.2 | 9.3 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | - | 0.3 | 0.3 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ | 1 | 4 | r |  |
| Traffic Vol, veh/h | 112 | 10 | 12 | 177 | 29 | 37 |
| Future Vol, veh/h | 112 | 10 | 12 | 177 | 29 | 37 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 127 | 11 | 14 | 201 | 33 | 42 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 138 | 0 | 356 | 127 |
| Stage 1 | - | - | - | - | 127 | - |
| Stage 2 | - | - | - | - | 229 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1446 | - | 642 | 923 |
| Stage 1 | - | - | - | - | 899 | - |
| Stage 2 | - | - | - | - | 809 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1446 | - | 636 | 923 |
| Mov Cap-2 Maneuver | - | - | - | - | 636 | - |
| Stage 1 | - | - | - | - | 899 | - |
| Stage 2 | - | - | - | - | 801 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.5 |  | 10.2 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) |  | 770 | - | - | 1446 | - |
| HCM Lane V/C Ratio |  | 0.097 | - |  | 0.009 | - |
| HCM Control Delay (s) |  | 10.2 | - | - | 7.5 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 147 | 2 | 3 | 187 | 2 | 3 |
| Future Vol, veh/h | 147 | 2 | 3 | 187 | 2 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 167 | 2 | 3 | 213 | 2 | 3 |


| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 0 | 0 | 169 | 0 | 386 | 167 |
| Stage 1 | - | - | - | - | 167 | - |
| Stage 2 | - | - | - | - | 219 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | -2.218 | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | - | - | 1409 | - | 617 | 877 |
| $\quad$ Stage 1 | - | - | - | - | 863 | - |
| Stage 2 | - | - | - | - | 817 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1409 | - | 616 | 877 |
| Mov Cap-2 Maneuver | - | - | - | - | 616 | - |
| Stage 1 | - | - | - | - | 863 | - |
| Stage 2 | - | - | - | - | 815 | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.1 | 9.8 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 750 | - | -1409 | - |  |
| HCM Lane V/C Ratio | 0.008 | - | -0.002 | - |  |
| HCM Control Delay (s) | 9.8 | - | - | 7.6 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 130 | 20 | 10 | 105 | 25 | 20 |
| Future Vol, veh/h | 130 | 20 | 10 | 105 | 25 | 20 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 148 | 23 | 11 | 119 | 28 | 23 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 171 | 0 | 289 | 148 |  |
| Stage 1 | - | - | - | - | 148 | - |  |
| Stage 2 | - | - | - | - | 141 | - |  |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | - | -2.218 | -3.518 | 3.318 |  |  |  |
| Pot Cap-1 Maneuver | - | - | 1406 | - | 702 | 899 |  |
| Stage 1 | - | - | - | - | 880 | - |  |
| Stage 2 | - | - | - | - | 886 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1406 | - | 696 | 899 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 696 | - |  |
| Stage 1 | - | - | - | - | 880 | - |  |
| Stage 2 | - | - | - | - | 879 | - |  |


| Approach | EB | WB | NB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.7 | 10 |
| HCM LOS |  | $B$ |  |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 774 | - | -1406 | - |  |
| HCM Lane V/C Ratio | 0.066 | - | -0.008 | - |  |
| HCM Control Delay (s) | 10 | - | - | 7.6 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{F}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 95 | 155 | 105 | 35 | 45 | 75 |
| Future Vol, veh/h | 95 | 155 | 105 | 35 | 45 | 75 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 108 | 176 | 119 | 40 | 51 | 85 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | ---: | :---: |
| Conflicting Flow All | 159 | 0 | - | 0 | 511 | 119 |  |
| Stage 1 | - | - | - | - | 119 | - |  |
| Stage 2 | - | - | - | - | 392 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1420 | - | - | - | 523 | 933 |  |
| $\quad$ Stage 1 | - | - | - | - | 906 | - |  |
| Stage 2 | - | - | - | - | 683 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1420 | - | - | - | 483 | 933 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 483 | - |  |
| Stage 1 | - | - | - | - | 837 | - |  |
| Stage 2 | - | - | - | - | 683 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 2.9 | 0 | 10.7 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1420 | - | - | - | 483 | 933 |
| HCM Lane V/C Ratio | 0.076 | - | - | - | 0.106 | 0.091 |
| HCM Control Delay (s) | 7.7 | - | - | - | 13.3 | 9.2 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - | 0.4 | 0.3 |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 1.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | 「 | ${ }^{*}$ | 4 | * |  |
| Traffic Vol, veh/h | 223 | 33 | 41 | 136 | 19 | 24 |
| Future Vol, veh/h | 223 | 33 | 41 | 136 | 19 | 24 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | Free |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | \# 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 253 | 38 | 47 | 155 | 22 | 27 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 245 | 2 | 5 | 175 | 2 | 5 |
| Future Vol, veh/h | 245 | 2 | 5 | 175 | 2 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 278 | 2 | 6 | 199 | 2 | 6 |


| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 280 | 0 | 489 | 278 |
| Stage 1 | - | - | - | - | 278 | - |
| Stage 2 | - | - | - | - | 211 | - |
| Critical Hdwy | - | - | 4.12 |  | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1283 | - | 538 | 761 |
| Stage 1 | - | - | - | - | 769 | - |
| Stage 2 | - | - | - | - | 824 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1283 | - | 535 | 761 |
| Mov Cap-2 Maneuver | - | - | - | - | 535 | - |
| Stage 1 | - | - | - | - | 769 | - |
| Stage 2 | - | - | - | - | 820 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.2 |  | 10.4 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 679 | - | - | 1283 |  |
| HCM Lane V/C Ratio |  | 0.012 | - |  | 0.004 | - |
| HCM Control Delay (s) |  | 10.4 | - | - | 7.8 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.9 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{F}$ | 1 | 个 | Mr |  |
| Traffic Vol, veh/h | 169 | 31 | 15 | 130 | 10 | 10 |
| Future Vol, veh/h | 169 | 31 | 15 | 130 | 10 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 192 | 35 | 17 | 148 | 11 | 11 |


| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 227 | 0 | 374 | 192 |
| Stage 1 | - | - | - | - | 192 | - |
| Stage 2 | - | - | - | - | 182 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1341 | - | 627 | 850 |
| Stage 1 | - | - | - | - | 841 | - |
| Stage 2 | - | - | - | - | 849 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1341 | - | 619 | 850 |
| Mov Cap-2 Maneuver | - | - | - | - | 619 | - |
| Stage 1 | - | - | - | - | 841 | - |
| Stage 2 | - | - | - | - | 838 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.8 |  | 10.2 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 716 | - | - | 1341 | - |
| HCM Lane V/C Ratio |  | 0.032 | - |  | 0.013 | - |
| HCM Control Delay (s) |  | 10.2 | - | - | 7.7 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.6 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{7}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 45 | 153 | 115 | 25 | 45 | 85 |
| Future Vol, veh/h | 45 | 153 | 115 | 25 | 45 | 85 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 174 | 131 | 28 | 51 | 97 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | 1 | 个 | Mr |  |
| Traffic Vol, veh/h | 118 | 10 | 22 | 177 | 29 | 37 |
| Future Vol, veh/h | 118 | 10 | 22 | 177 | 29 | 37 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 134 | 11 | 25 | 201 | 33 | 42 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 145 | 0 | 385 | 134 |
| Stage 1 | - | - | - | - | 134 | - |
| Stage 2 | - | - | - | - | 251 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1437 | - | 618 | 915 |
| Stage 1 | - | - | - | - | 892 | - |
| Stage 2 | - | - | - | - | 791 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1437 | - | 607 | 915 |
| Mov Cap-2 Maneuver | - | - | - | - | 607 | - |
| Stage 1 | - | - | - | - | 892 | - |
| Stage 2 | - | - | - | - | 778 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.8 |  | 10.3 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) |  | 748 | - | - | 1437 | - |
| HCM Lane V/C Ratio |  | 0.1 | - | - | 0.017 | - |
| HCM Control Delay (s) |  | 10.3 | - | - | 7.5 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | 0.1 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 195 | 2 | 3 | 197 | 2 | 3 |
| Future Vol, veh/h | 195 | 2 | 3 | 197 | 2 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 222 | 2 | 3 | 224 | 2 | 3 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 224 | 0 | 452 | 222 |
| Stage 1 | - | - | - | - | 222 | - |
| Stage 2 | - | - | - | - | 230 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1345 | - | 565 | 818 |
| Stage 1 | - | - | - | - | 815 | - |
| Stage 2 | - | - | - | - | 808 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1345 | - | 564 | 818 |
| Mov Cap-2 Maneuver | - | - | - | - | 564 | - |
| Stage 1 | - | - | - | - | 815 | - |
| Stage 2 | - | - | - | - | 806 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.1 |  | 10.2 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) |  | 693 | - | - | 1345 | - |
| HCM Lane V/C Ratio |  | 0.008 | - | - | 0.003 | - |
| HCM Control Delay (s) |  | 10.2 | - | - | 7.7 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | 1 | 个 | M |  |
| Traffic Vol, veh/h | 178 | 20 | 10 | 115 | 25 | 20 |
| Future Vol, veh/h | 178 | 20 | 10 | 115 | 25 | 20 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 202 | 23 | 11 | 131 | 28 | 23 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 225 | 0 | 355 | 202 |
| Stage 1 | - | - | - | - | 202 | - |
| Stage 2 | - | - | - | - | 153 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1344 | - | 643 | 839 |
| Stage 1 | - | - | - | - | 832 | - |
| Stage 2 | - | - | - | - | 875 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1344 | - | 638 | 839 |
| Mov Cap-2 Maneuver | - | - | - | - | 638 | - |
| Stage 1 | - | - | - | - | 832 | - |
| Stage 2 | - | - | - | - | 868 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.6 |  | 10.4 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 714 | - | - | 1344 | - |
| HCM Lane V/C Ratio |  | 0.072 | - | - | 0.008 | - |
| HCM Control Delay (s) |  | 10.4 | - | - | 7.7 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ |  | 个 |  | $\mathbf{7}$ |
| Traffic Vol, veh/h | 149 | 16 | 0 | 199 | 0 | 48 |
| Future Vol, veh/h | 149 | 16 | 0 | 199 | 0 | 48 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 169 | 18 | 0 | 226 | 0 | 55 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.6 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | 4 | $\mathbf{4}$ | $\mathbf{7}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 95 | 187 | 138 | 35 | 45 | 75 |
| Future Vol, veh/h | 95 | 187 | 138 | 35 | 45 | 75 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 108 | 213 | 157 | 40 | 51 | 85 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ | 1 | 4 | r |  |
| Traffic Vol, veh/h | 245 | 33 | 74 | 136 | 19 | 24 |
| Future Vol, veh/h | 245 | 33 | 74 | 136 | 19 | 24 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 278 | 38 | 84 | 155 | 22 | 27 |


| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 316 | 0 | 601 | 278 |
| Stage 1 | - | - | - | - | 278 | - |
| Stage 2 | - | - | - | - | 323 | - |
| Critical Hdwy | - | - | 4.12 |  | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1244 | - | 463 | 761 |
| Stage 1 | - | - | - | - | 769 | - |
| Stage 2 | - | - | - | - | 734 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1244 | - | 432 | 761 |
| Mov Cap-2 Maneuver | - | - | - | - | 432 | - |
| Stage 1 | - | - | - | - | 769 | - |
| Stage 2 | - | - | - | - | 684 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 2.9 |  | 11.9 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 569 | - | - | 1244 | - |
| HCM Lane V/C Ratio |  | 0.086 | - | - | 0.068 | - |
| HCM Control Delay (s) |  | 11.9 | - | - | 8.1 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | 0.2 | - |



| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 317 | 0 | 563 | 315 |  |
| Stage 1 | - | - | - | - | 315 | - |  |
| Stage 2 | - | - | - | - | 248 | - |  |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | - | - | 1243 | - | 487 | 725 |  |
| Stage 1 | - | - | - | - | 740 | - |  |
| Stage 2 | - | - | - | - | 793 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1243 | - | 485 | 725 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 485 | - |  |
| Stage 1 | - | - | - | - | 740 | - |  |
| Stage 2 | - | - | - | - | 789 | - |  |


| Approach | EB | WB | NB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.2 | 10.7 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 635 | - | -1243 | - |  |
| HCM Lane V/C Ratio | 0.013 | - | -0.005 | - |  |
| HCM Control Delay (s) | 10.7 | - | - | 7.9 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.8 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | 1 | 个 | M |  |
| Traffic Vol, veh/h | 201 | 31 | 15 | 163 | 10 | 10 |
| Future Vol, veh/h | 201 | 31 | 15 | 163 | 10 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 228 | 35 | 17 | 185 | 11 | 11 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 263 | 0 | 447 | 228 |  |
| $\quad$ Stage 1 | - | - | - | - | 228 | - |  |
| Stage 2 | - | - | - | - | 219 | - |  |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | - | -2.218 | - | 3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | - | - | 1301 | - | 569 | 811 |  |
| $\quad$ Stage 1 | - | - | - | - | 810 | - |  |
| Stage 2 | - | - | - | - | 817 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1301 | - | 562 | 811 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 562 | - |  |
| Stage 1 | - | - | - | - | 810 | - |  |
| Stage 2 | - | - | - | - | 806 | - |  |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.7 | 10.6 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 664 | - | -1301 | - |  |
| HCM Lane V/C Ratio | 0.034 | - | -0.013 | - |  |
| HCM Control Delay (s) | 10.6 | - | - | 7.8 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ |  | 个 |  | $\mathbf{7}$ |
| Traffic Vol, veh/h | 247 | 55 | 0 | 210 | 0 | 32 |
| Future Vol, veh/h | 247 | 55 | 0 | 210 | 0 | 32 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 281 | 63 | 0 | 239 | 0 | 36 |


| Major/Minor |  | Major1 | Minor1 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Conflicting Flow All | 0 | 0 | - | - | - | 281 |
| $\quad$ Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | -3.318 |  |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 758 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 758 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0 | 10 |
| HCM LOS |  | B |  |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | :---: |
| Capacity (veh/h) | 758 | - | - | - |
| HCM Lane V/C Ratio | 0.048 | - | - | - |
| HCM Control Delay (s) | 10 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 4.1 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{4}$ | 个 | $\mathbf{4}$ | $\mathbf{7}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 80 | 321 | 141 | 35 | 65 | 150 |
| Future Vol, veh/h | 80 | 321 | 141 | 35 | 65 | 150 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 89 | 357 | 157 | 39 | 72 | 167 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ | 1 | 4 | r |  |
| Traffic Vol, veh/h | 353 | 10 | 12 | 278 | 29 | 37 |
| Future Vol, veh/h | 353 | 10 | 12 | 278 | 29 | 37 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 392 | 11 | 13 | 309 | 32 | 41 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 403 | 0 | 727 | 392 |
| Stage 1 | - | - | - | - | 392 | - |
| Stage 2 | - | - | - | - | 335 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1156 | - | 391 | 657 |
| Stage 1 | - | - | - | - | 683 | - |
| Stage 2 | - | - | - | - | 725 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1156 | - | 387 | 657 |
| Mov Cap-2 Maneuver | - | - | - | - | 387 | - |
| Stage 1 | - | - | - | - | 683 | - |
| Stage 2 | - | - | - | - | 717 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.3 |  | 13.4 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) |  | 503 | - | - | 1156 | - |
| HCM Lane V/C Ratio |  | 0.146 | - | - | 0.012 | - |
| HCM Control Delay (s) |  | 13.4 | - | - | 8.2 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.5 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 398 | 2 | 3 | 288 | 2 | 3 |
| Future Vol, veh/h | 398 | 2 | 3 | 288 | 2 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 442 | 2 | 3 | 320 | 2 | 3 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 444 | 0 | 768 | 442 |  |
| Stage 1 | - | - | - | - | 442 | - |  |
| Stage 2 | - | - | - | - | 326 | - |  |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | - | - | 1116 | - | 370 | 615 |  |
| Stage 1 | - | - | - | - | 648 | - |  |
| Stage 2 | - | - | - | - | 731 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1116 | - | 369 | 615 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 369 | - |  |
| Stage 1 | - | - | - | - | 648 | - |  |
| Stage 2 | - | - | - | - | 729 | - |  |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.1 | 12.5 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 486 | - | -1116 | - |  |
| HCM Lane V/C Ratio | 0.011 | - | -0.003 | - |  |
| HCM Control Delay (s) | 12.5 | - | - | 8.2 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | 0 | - |


|  | Intersection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 1.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | 「 | ${ }^{*}$ | 4 | * |  |
| Traffic Vol, veh/h | 366 | 20 | 10 | 151 | 25 | 20 |
| Future Vol, veh/h | 366 | 20 | 10 | 151 | 25 | 20 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | \# 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 407 | 22 | 11 | 168 | 28 | 22 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 429 | 0 | 597 | 407 |
| Stage 1 | - | - | - | - | 407 | - |
| Stage 2 | - | - | - | - | 190 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1130 | - | 466 | 644 |
| Stage 1 | - | - | - | - | 672 | - |
| Stage 2 | - | - | - | - | 842 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1130 | - | 461 | 644 |
| Mov Cap-2 Maneuver | - | - | - | - | 461 | - |
| Stage 1 | - | - | - | - | 672 | - |
| Stage 2 | - | - | - | - | 834 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.5 |  | 12.5 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 528 | - | - | 1130 | - |
| HCM Lane V/C Ratio |  | 0.095 | - | - | 0.01 | - |
| HCM Control Delay (s) |  | 12.5 | - | - | 8.2 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | 0 | - |



| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| Conflicting Flow All | 0 | 0 | - | - | - | 406 |
| $\quad$ Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | -3.318 |  |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 645 |
| $\quad$ Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 645 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, $s$ | 0 | 0 | 10.9 |
| HCM LOS |  |  | $B$ |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 645 | - | - | - |
| HCM Lane V/C Ratio | 0.06 | - | - | - |
| HCM Control Delay (s) | 10.9 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 4.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{*}$ | 4 | 4 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 180 | 283 | 353 | 60 | 60 | 130 |
| Future Vol, veh/h | 180 | 283 | 353 | 60 | 60 | 130 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 92 | 92 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 200 | 308 | 384 | 67 | 67 | 144 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 451 | 0 | - | 0 | 1092 | 384 |  |
| Stage 1 | - | - | - | - | 384 | - |  |
| Stage 2 | - | - | - | - | 708 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1109 | - | - | - | 237 | 664 |  |
| Stage 1 | - | - | - | - | 688 | - |  |
| Stage 2 | - | - | - | - | 488 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1109 | - | - | - | 194 | 664 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 194 | - |  |
| Stage 1 | - | - | - | - | 564 | - |  |
| Stage 2 | - | - | - | - | 488 | - |  |
|  |  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |  |
| HCM Control Delay, s | 3.5 |  | 0 |  | 18.6 |  |  |
| HCM LOS |  |  |  |  | C |  |  |
|  |  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 SBLn2 |  |  |  |
| Capacity (veh/h) |  | 1109 | - | - | - | 194 | 664 |
| HCM Lane V/C Ratio |  | 0.18 | - | - | - | 0.344 | 0.218 |
| HCM Control Delay (s) |  | 9 | - | - | - | 33 | 11.9 |
| HCM Lane LOS |  | A | - | - | - | D | B |
| HCM 95th \%tile Q(veh) |  | 0.7 | - | - | - | 1.4 | 0.8 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 451 | 33 | 41 | 439 | 19 | 24 |
| Future Vol, veh/h | 451 | 33 | 41 | 439 | 19 | 24 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 501 | 37 | 46 | 488 | 21 | 27 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 538 | 0 | 1081 | 501 |  |
| Stage 1 | - | - | - | - | 501 | - |  |
| Stage 2 | - | - | - | - | 580 | - |  |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | - | -2.218 | -3.518 | 3.318 |  |  |  |
| Pot Cap-1 Maneuver | - | - | 1030 | - | 241 | 570 |  |
| $\quad$ Stage 1 | - | - | - | - | 609 | - |  |
| Stage 2 | - | - | - | - | 560 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1030 | - | 230 | 570 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 230 | - |  |
| Stage 1 | - | - | - | - | 609 | - |  |
| Stage 2 | - | - | - | - | 535 | - |  |


| Approach | EB | WB | NB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 0 | 0.7 | 17.1 |
| HCM LOS |  | C |  |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 345 | - | -1030 | - |  |
| HCM Lane V/C Ratio | 0.138 | - | -0.044 | - |  |
| HCM Control Delay (s) | 17.1 | - | - | 8.7 | - |
| HCM Lane LOS | C | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0.5 | - | - | 0.1 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ | 1 | 4 | rin |  |
| Traffic Vol, veh/h | 458 | 2 | 5 | 478 | 2 | 5 |
| Future Vol, veh/h | 458 | 2 | 5 | 478 | 2 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 509 | 2 | 6 | 531 | 2 | 6 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 511 | 0 | 1052 | 509 |
| Stage 1 | - | - | - | - | 509 | - |
| Stage 2 | - | - | - | - | 543 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1054 | - | 251 | 564 |
| Stage 1 | - | - | - | - | 604 | - |
| Stage 2 | - | - | - | - | 582 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1054 | - | 249 | 564 |
| Mov Cap-2 Maneuver | - | - | - | - | 249 | - |
| Stage 1 | - | - | - | - | 604 | - |
| Stage 2 | - | - | - | - | 579 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.1 |  | 13.9 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 EBT EBR WBL WBT |  |  |  |  |
| Capacity (veh/h) |  | 414 | - | - | 1054 | - |
| HCM Lane V/C Ratio |  | 0.019 | - |  | 0.005 | - |
| HCM Control Delay (s) |  | 13.9 | - | - | 8.4 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{r}$ | 1 | 个 | M |  |
| Traffic Vol, veh/h | 312 | 31 | 15 | 403 | 10 | 10 |
| Future Vol, veh/h | 312 | 31 | 15 | 403 | 10 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 347 | 34 | 17 | 448 | 11 | 11 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 381 | 0 | 829 | 347 |
| Stage 1 | - | - | - | - | 347 | - |
| Stage 2 | - | - | - | - | 482 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1177 | - | 340 | 696 |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 621 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1177 | - | 335 | 696 |
| Mov Cap-2 Maneuver | - | - | - | - | 335 | - |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 612 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.3 |  | 13.4 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 452 | - | - | 1177 | - |
| HCM Lane V/C Ratio |  | 0.049 | - | - | 0.014 | - |
| HCM Control Delay (s) |  | 13.4 | - | - | 8.1 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 个 |  | $\mathbf{7}$ |
| Traffic Vol, veh/h | 435 | 40 | 0 | 480 | 0 | 25 |
| Future Vol, veh/h | 435 | 40 | 0 | 480 | 0 | 25 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 483 | 44 | 0 | 533 | 0 | 28 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: |
| Conflicting Flow All | 0 | 0 | - | - | - | 483 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 584 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 584 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0 | 11.5 |

HCM LOS B

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | :---: |
| Capacity (veh/h) | 584 | - | - | - |
| HCM Lane V/C Ratio | 0.048 | - | - | - |
| HCM Control Delay (s) | 11.5 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | - |



| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 199 | 0 | - | 0 | 716 | 160 |
| $\quad$ Stage 1 | - | - | - | - | 160 | - |
| Stage 2 | - | - | - | - | 556 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | -5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1373 | - | - | - | 397 | 885 |
| $\quad$ Stage 1 | - | - | - | - | 869 | - |
| Stage 2 | - | - | - | - | 574 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1373 | - | - | - | 371 | 885 |
| Mov Cap-2 Maneuver | - | - | - | - | 371 | - |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 574 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 1.5 | 0 | 12.1 |
| HCM LOS |  | $B$ |  |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1373 | - | - | -371 | 885 |
| HCM Lane V/C Ratio | 0.065 | - | - | -0.195 | 0.188 |
| HCM Control Delay (s) | 7.8 | - | - | - | 17 |
| HCM Lane LOS | A | - | - | - | C |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - | 0.7 |
| H | 0.7 |  |  |  |  |

3: Penrith Park Access \& E. Colfax Avenue (US 36)

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 360 | 10 | 15 | 278 | 29 | 37 |
| Future Vol, veh/h | 360 | 10 | 15 | 278 | 29 | 37 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 400 | 11 | 17 | 309 | 32 | 41 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 411 | 0 | 743 | 400 |
| Stage 1 | - | - | - | - | 400 | - |
| Stage 2 | - | - | - | - | 343 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1148 | - | 383 | 650 |
| Stage 1 | - | - | - | - | 677 | - |
| Stage 2 | - | - | - | - | 719 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1148 | - | 377 | 650 |
| Mov Cap-2 Maneuver | - | - | - | - | 377 | - |
| Stage 1 | - | - | - | - | 677 | - |
| Stage 2 | - | - | - | - | 708 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.4 |  | 13.6 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) |  | 493 | - | - | 1148 | - |
| HCM Lane V/C Ratio |  | 0.149 | - | - | 0.015 | - |
| HCM Control Delay (s) |  | 13.6 | - | - | 8.2 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.5 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 417 | 2 | 3 | 291 | 2 | 3 |
| Future Vol, veh/h | 417 | 2 | 3 | 291 | 2 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 463 | 2 | 3 | 323 | 2 | 3 |


| Major/Minor | Major1 | Major2 | Minor1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 465 | 0 | 792 | 463 |
| Stage 1 |  | - - | - | 463 |  |
| Stage 2 | - | - - | - | 329 |  |
| Critical Hdwy |  | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 |  | - | - | 5.42 |  |
| Critical Hdwy Stg 2 |  | - | - | 5.42 |  |
| Follow-up Hdwy |  | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver |  | 1096 | - | 358 | 599 |
| Stage 1 |  | - - | - | 634 |  |
| Stage 2 |  | - - | - | 729 |  |
| Platoon blocked, \% |  | - | - |  |  |
| Mov Cap-1 Maneuver |  | 1096 | - | 357 | 599 |
| Mov Cap-2 Maneuver |  | - - | - | 357 |  |
| Stage 1 |  | - - |  | 634 |  |
| Stage 2 | - | - - | - | 727 |  |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.1 | 12.7 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 471 | - | -1096 | - |  |
| HCM Lane V/C Ratio | 0.012 | - | -0.003 | - |  |
| HCM Control Delay (s) | 12.7 | - | - | 8.3 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | 0 | - |





| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| Conflicting Flow All | 0 | 0 | - | - | - | 406 |
| $\quad$ Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | -3.318 |  |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 645 |
| $\quad$ Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 645 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, $s$ | 0 | 0 | 11.2 |
| HCM LOS |  | $B$ |  |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 645 | - | - | - |
| HCM Lane V/C Ratio | 0.093 | - | - | - |
| HCM Control Delay (s) | 11.2 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 4.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 4 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 180 | 296 | 364 | 60 | 60 | 130 |
| Future Vol, veh/h | 180 | 296 | 364 | 60 | 60 | 130 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 25 | - | - | 25 | 25 | 0 |
| Veh in Median Storage, \# | \# - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 92 | 92 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 200 | 322 | 396 | 67 | 67 | 144 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 463 | 0 | - | 0 | 1118 | 396 |  |
| Stage 1 | - | - | - | - | 396 | - |  |
| Stage 2 | - | - | - | - | 722 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1098 | - | - | - | 229 | 653 |  |
| Stage 1 | - | - | - | - | 680 | - |  |
| Stage 2 | - | - | - | - | 481 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1098 | - | - | - | 187 | 653 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 187 | - |  |
| Stage 1 | - | - | - | - | 556 | - |  |
| Stage 2 | - | - | - | - | 481 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 3.5 | 0 | 19.2 |
| HCM LOS |  |  | C |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1098 | - | - | - | 187 |

3: Penrith Park access \& E. Colfax Avenue (US 36)

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{7}$ |  | 4 | Mr |  |
| Traffic Vol, veh/h | 473 | 33 | 52 | 439 | 19 | 24 |
| Future Vol, veh/h | 473 | 33 | 52 | 439 | 19 | 24 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | 100 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 526 | 37 | 58 | 488 | 21 | 27 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 563 | 0 | 1130 | 526 |
| Stage 1 | - | - | - | - | 526 | - |
| Stage 2 | - | - | - | - | 604 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1008 | - | 225 | 552 |
| Stage 1 | - | - | - | - | 593 | - |
| Stage 2 | - | - | - | - | 546 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1008 | - | 212 | 552 |
| Mov Cap-2 Maneuver | - | - | - | - | 212 | - |
| Stage 1 | - | - | - | - | 593 | - |
| Stage 2 | - | - | - | - | 514 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.9 |  | 18.1 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) |  | 323 | - | - | 1008 | - |
| HCM Lane V/C Ratio |  | 0.148 | - | - | 0.057 | - |
| HCM Control Delay (s) |  | 18.1 | - | - | 8.8 | - |
| HCM Lane LOS |  | C | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.5 | - | - | 0.2 | - |

8: Bennett Community Center Access \& E. Colfax Avenue (US 36)

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\mathbf{4}$ | $\mathbf{7}$ | 1 | 4 | r |  |
| Traffic Vol, veh/h | 471 | 2 | 5 | 489 | 2 | 5 |
| Future Vol, veh/h | 471 | 2 | 5 | 489 | 2 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 50 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 523 | 2 | 6 | 543 | 2 | 6 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ | 1 | 4 | r |  |
| Traffic Vol, veh/h | 325 | 31 | 15 | 414 | 10 | 10 |
| Future Vol, veh/h | 325 | 31 | 15 | 414 | 10 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 25 | 25 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 361 | 34 | 17 | 460 | 11 | 11 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 395 | 0 | 855 | 361 |
| Stage 1 | - | - | - | - | 361 | - |
| Stage 2 | - | - | - | - | 494 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1164 | - | 329 | 684 |
| Stage 1 | - | - | - | - | 705 | - |
| Stage 2 | - | - | - | - | 613 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1164 | - | 324 | 684 |
| Mov Cap-2 Maneuver | - | - | - | - | 324 | - |
| Stage 1 | - | - | - | - | 705 | - |
| Stage 2 | - | - | - | - | 604 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.3 |  | 13.6 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) |  | 440 | - | - | 1164 | - |
| HCM Lane V/C Ratio |  | 0.051 | - | - | 0.014 | - |
| HCM Control Delay (s) |  | 13.6 | - | - | 8.1 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个 | $\mathbf{7}$ |  | 个 |  | $\mathbf{7}$ |
| Traffic Vol, veh/h | 435 | 73 | 0 | 491 | 0 | 38 |
| Future Vol, veh/h | 435 | 73 | 0 | 491 | 0 | 38 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 483 | 81 | 0 | 546 | 0 | 42 |


| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :---: | ---: | :---: | :---: | :---: | ---: | ---: |
| Conflicting Flow All | 0 | 0 | - | - | - | 483 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.318 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 584 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 584 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0 | 11.6 |

HCM LOS B

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | :---: |
| Capacity (veh/h) | 584 | - | - | - |
| HCM Lane V/C Ratio | 0.072 | - | - | - |
| HCM Control Delay (s) | 11.6 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - |

# BENNETT PLANNING AND ZONING COMMISSION 

## RESOLUTION NO. 2022-01

## A RESOLUTION RECOMMENDING APPROVAL OF THE FINAL PLAT FOR THE BRUNNER SUBDIVISION

WHEREAS, there has been submitted to the Planning and Zoning Commission of the Town of Bennett a request for approval of a Final Plat for the Brunner Subdivision; and

WHEREAS, all materials related to the proposed Final Plat have been reviewed by Town Staff and found with conditions to be in compliance with Town of Bennett subdivision and zoning ordinances; and

WHEREAS, after a noticed public hearing, at which evidence and testimony were entered into the record, the Planning and Zoning Commission finds that the proposed Final Plat should be approved subject to certain conditions.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF BENNETT, COLORADO:

Section 1. The Planning and Zoning Commission hereby recommends approval of the proposed Final Plat for the Brunner Subdivision, subject to the conditions set forth on Exhibit A, attached hereto and incorporated herein by reference.

PASSED AND ADOPTED THIS 24th DAY OF JANUARY 2022.

## Chairperson

## ATTEST:

[^0]
## EXHIBIT A Brunner Subdivision Final Plat Conditions of Approval

1. The subdivision agreement shall include a provision committing the subdivider to build and maintain a second access to the south from the subdivision, in a time, place and manner acceptable to the Town.
2. The equivalent value of 0.9 acres of land shall be provided as cash-in-lieu and addressed in the subdivision agreement.
3. The plat should be amended to reflect Tracts I and J are to be vacated and owned and maintained by the metropolitan district or the homeowner's' association.
4. Before recording the plat, the applicant shall update plat notes related to tracts, easements and maintenance in a manner directed by the Town Engineer and make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## Suggested Motion

I move to approve Resolution No. 2022-01 - A resolution recommending approval of the final plat for the Brunner Subdivision with the following conditions of approval:

1. The subdivision agreement shall include a provision committing the subdivider to build and maintain a second access to the south from the subdivision, in a time, place and manner acceptable to the Town.
2. The equivalent value of 0.9 acres of land shall be provided as cash-in-lieu and addressed in the subdivision agreement.
3. The plat should be amended to reflect Tracts I and J are to be vacated and owned and maintained by the metropolitan district or the homeowner's' association.
4. Before recording the plat, the applicant shall update plat notes related to tracts, easements and maintenance in a manner directed by the Town Engineer and make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## QUASI-JUDICIAL PUBLIC HEARING SCRIPT <br> (PLANNING COMMISSION)

CHAIR: I will now open the public hearing on the following application: An application for Case No. 21.21300 Bennett Avenue Final Plat.

The purpose of the hearing is to provide a public forum for all interested parties who wish to comment on an application before the Commission. If you wish to speak please write your name and address in the chat box and you will be called on.

The Procedure for the public hearing will be as follows:
FIRST, there will be a presentation by the Town staff.
NEXT, we will have a presentation by the applicant.
After these two presentations we will allow people who signed up to speak for up to 3 minutes each. Please DO NOT REPEAT points made by others. It is fine to say, "I agree with the previous speaker's comments". Please direct your comments to the Commission, not the applicant or Town staff.

After receiving public comments, we will allow the applicant an opportunity to respond.
NEXT, the Planning Commission members may ask questions of anyone who testified.
I will then close the public hearing and no further testimony or other evidence will be received. The Planning Commission will discuss the matter and may take some kind of action.

Public hearings are recorded for the public record. All testimony must be presented, after you give your full name and address.

CHAIR: Do we have proper notification?

## [Town Clerk to confirm on record notice has been provided]

Do any Commission members have any disclosures?
[Commissioners to disclose conflicts of interests, ex parte contacts, etc]
Town staff, please introduce the applicant and provide your staff report.
[Staff presentation]
Will the applicant or the applicant's representative present the application?
[Applicant presentation]
Do any of the Commissioners have questions of the applicant or Town staff?

## [Question and Answer]

CHAIR: I will now open the public comment portion of the public hearing. For those wishing to speak, please clearly state your name and address for the record.

Has anyone signed up to speak at this public hearing?

## [lf more than one person has signed in, call them in order.]

Is there any interested party in the audience that has not signed up but who wishes to speak regarding the application?

## [Additional public comment]

If there is no more public comment, I will now close the public comment portion of the public hearing.
CHAIR: Does the applicant wish to respond to any of the comments?

## [Opportunity for applicant to provide any rebuttal evidence]

CHAIR: Before we turn to Commissioner questions and deliberation, I want to state that the documents included within the record for this public hearing include all application materials submitted by the applicant; all materials included in the Planning Commission packets; any PowerPoint or other presentations given tonight; all written referral and public comments received regarding the application; the public comment sign-up sheet; the public posting log and photographs of the notice, and the Town's subdivision and zoning ordinances and other applicable regulations. Does anyone have any objection to inclusion of these items in the record?

CHAIR: I will now close the public hearing and the Planning Commission members will deliberate on the evidence presented. During deliberations, Commission members may ask questions of Town staff, but no further public comment or other testimony or evidence will be received.

Who would like to begin?
Who is next?
Any other questions or comments
[If anyone believes the applicable criteria have not been met, then please explain why so we have those reasons for the record.]

CHAIR: We have a draft Resolution in front of us and I would entertain a motion.
We have a motion on the floor by Commissioner $\qquad$ and a second by Commissioner $\qquad$ to approve Planning and Zoning Commission Resolution No. 2022-02.

May we have a Roll-Call vote?
Motion carries/fails.

TO: Members of the Planning and Zoning Commission
FROM: Steve Hebert, Planning and Economic Development Manager
DATE: January 24, 2022
SUBJECT: Case No. 21.21 - Bennett Avenue Townhome Subdivision Final Plat
Applicant/Representative(s): DATO Investments, LLC; Owner's Representatives - David Stockman, Tom Richardson

Location: 300 Bennett Avenue, on the south side of Bennett Ave. between Cherry and Dahlia Streets.
Purpose: Final Plat for 19 Townhome Lots

## Background

Case No. 21.21 is a proposed final plat for 19 townhome lots on 1.5 acres located at 300 Bennett Avenue, immediately east of the Horizon Condominiums. See the vicinity map below.

The property was annexed into the Town of Bennett in June 2020. The Town of Bennett Board of Trustees approved R-3 - High Density Residential zoning on March 9, 2021. The Planning and Zoning Commission reviewed a sketch plan for the project on February 22, 2021.


Town of Bennett • 207 Muegge Way • Bennett, CO 80102 • p. 303-644-3249 • f. 303-644-4125

Site Looking Southwest


Site Looking Northeast


## Proposed Lot Layout

The map below shows the proposed lot layout and street configuration. The interior street will be a private drive serving the townhomes that will have front-loaded garages. There will be nine lots on the north side of the private drive and ten lots on the south side.


Access to the private drive on the west side will be via an existing 30 -foot town owned right-of-way. Tract A , in blue, will be for parking; Tract B, in grey, is the private access road and utility easement; and Tract C, in green, is a utility and maintenance access easement.

## Zoning and Land Use Regulations

The map below shows the zoning of the surrounding area, including a mix of residential neighborhoods.


| Direction | Adjacent Zone District | Land Use |
| :--- | :--- | :--- |
| North | R-1 (Low Density Resid.) and MH (Mobile Home) | Residential - Brothers Four |
| East | PD - Planned Development | Residential, Bennett Crossing (LGI) |
| South | PD - Planned Development | Residential, Bennett Crossing (LGI) |
| West | R-3 - High Density Residential | Horizon Condominiums |

The table below summarizes the minimum and maximum standards in the R-3 zone district and how the proposed subdivision plat compares. Most of the standards will be enforced at the time of site plan or building permit.

| Standard | R-3 Zone District | Proposed |
| :--- | ---: | ---: |
| Min. Lot Area/Dwelling Unit | 2,400 sq. ft. | $2,400 \mathrm{sq} . \mathrm{ft}$. |
| Min.Lot Width | 25 feet for townhomes | 25 ft. |
| Max.Lot Coverage | $75 \%$ | TBD |
| Minimum Floor Area/Dwelling Unit | 600 sq. ft. | TBD |
| Minimum Front Yard Setback <br> (Principal Structure) | 25 feet | TBD |
| Min. Side Yard Setback (Principal <br> Structure) | 5 feet for townhomes | TBD |
| Min. Rear Yard Setback (Principal <br> Structure) | 20 feet | TBD |
| Maximum Height (Principal <br> Structure) | 40 feet | TBD |

## Public Services and Utilities

## Water

Water service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Sanitary Sewer

Sanitary sewer service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Stormwater Management

Stormwater will be collected and conveyed via a newly constructed stormwater system, using the adjacent Bennett Crossing stormwater detention pond and other newly constructed facilities. See the Town Engineer's memorandum.

## Access and Traffic

Access is from Bennett Avenue to an interior private drive.

## Fire and Rescue

Bennett-Watkins Fire Rescue (BWFR) will provide service. The applicant should meet directly with BWFR directly to review specific site and building plans to assure conformance with International Fire Code standards. See the BWFR's referral response.

## Gas, Electricity and Telecommunications

Natural gas will be provided by Colorado Natural Gas, electricity by CORE Electric Cooperative and telecommunications by Eastern Slope Technologies (ESRTA).

## Public Land Dedication Requirements

## Park Land and Public Facilities

The Municipal Code requires ten percent (10\%) of the total land area contained within the subdivision to be dedicated to the Town for park land and other public facilities. Ten percent of the 1.5 acres would be 0.15 acres, or 6,534 sq. ft. of land. The Town will require that it be satisfied by cash-in-lieu, which will be determined at the time of subdivision agreement and will eventually be presented to and approved by the Board of Trustees.

## Bennett School District 29J

The Bennett School District 29J has requested cash-in-lieu of land dedication, which will be payable pursuant to the Town of Bennett/School District IGA and the municipal code in effect at the time of building permit issuance.

## Staff Analysis and Findings

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:
A. The final plat incorporates recommended changes, modifications and conditions attached to the sketch plan unless otherwise approved by the Planning Commission.

Staff Finding: The Final Plat is generally consistent with the previous sketch plan, with 19 lots instead of the original 20.
B. All applicable technical standards in accordance with this Chapter and adopted Town documents have been met.

1. To establish appropriate standards for subdivision design that will:
a. Encourage the development of sound, economical and stable neighborhoods and healthy living environments, in conformance with the goals and policies of the Comprehensive Plan.
b. Provide lots of adequate size, configuration and design for the purpose for which they are intended to be used.
c. Promote superior design and design flexibility.
d. Preserve the significant natural features and environmental quality of the Town.
e. Guide the physical development of the Town in ways that complement the Town's character and culture.
f. Promote a cohesive sense of community among new and current residents, precluding neighborhood design or restrictions that in any way isolate any neighborhood from the rest of the community.
g. Provide complete and accurate public land records.

Staff Finding: The proposed Final Plat will accommodate new development that meets the standards of good subdivision design.
2. To establish standards for utilities and other public services that will:
a. Provide an efficient, adequate and economical supply of utilities and services to land proposed for development without adverse effects to property that is currently served.
b. Ensure that adequate stormwater drainage, sewage disposal, water supply and other utilities, services and improvements needed as a consequence of the subdivision of the land are provided.
c. Provide for the reasonable extension of utilities and services to other lands that may be developed in the future.
d. Provide the equitable distribution of the cost of new and expanded public services needed to support new land development.

Staff Finding: The proposed final plat, future subdivision agreement and construction documents will accommodate extension of utilities and public services to serve new residential neighborhood.
3. To ensure the provision of adequate and safe traffic circulation that will:
a. Minimize traffic hazards through appropriate street design, providing safe and convenient vehicular and pedestrian traffic circulation systems.
b. Provide adequate vehicular access to abutting properties.
c. Provide streets of adequate capacity and appropriate design and function.

Staff Finding: The proposed private drive and related traffic circulation has been adjusted to assure adequate circulation for residents, visitors and emergency vehicles.
4. To ensure adequate public facilities that will:
a. Provide for the recreational, cultural, educational and other public facility needs of the community.
b. Facilitate effective law enforcement and fire protection.

Staff Finding: The applicant will be required to pay cash-in-lieu for public land dedication and school land dedication, as well as the standard Town impact fees. The plat has been adjusted in response to concerns by Bennett-Watkins Fire Rescue to assure adequate emergency vehicle access.
5. To contribute to the proper development of the community in accordance with the goals and policies of the Comprehensive Plan as it may be updated from time to time.

Staff Finding: The proposed plat is consistent with the principles in the 2021 Town of Bennett Comprehensive Plan related to:

- Mixed land uses
- Access to healthy living
- Access to open space, trails and parks
- Contiguous development
- A variety of transportation choices
C. Compliance with Zoning Regulations

Staff Finding: All lots meet the standards in R-3 - High Density Residential District, as noted above.

## Referral Agency Review and Comments

The proposed Bennett Avenue Townhome Final Plat was sent to several referral agencies for comment, including:

1. Town Planning
2. Town Engineer
3. Town Traffic Engineer
4. Town Attorney
5. Bennett-Watkins Fire Rescue (BWFR)
6. CORE Electric Cooperative (IREA)
7. Colorado Natural Gas (CNG)
8. Bennett School District 29J

Each of the agencies had comments or recommendations that are either reflected on the final plat document or will be addressed at later stages of the review process, e.g. site plan or building permit. General cleanup of the document to include all agency comments will be completed before recording.

## Public Comment

Notice of the January 24, 2022 Planning and Zoning Commission hearing and the February 8, 2021 Board of Trustees hearing was published in the Eastern Colorado News, posted on the subject property and sent to all property owners within 300 feet of the property. No comments, other than those from the referral agencies, have been received to date.

## Staff Recommendation

Staff finds the proposed final plat is in compliance with the Subdivision Regulations in Chapter 16, Article IV of the Bennett Municipal Code. Staff also finds the plat has been processed according to Section 16-4-360 and meets the approval criteria in 16-4-380. Based upon these findings, staff recommends the Planning and Zoning Commission recommend to the Board of Trustees approval of Case No. 21.21 - Bennett Avenue Townhome Subdivision Final Plat, with the following conditions:

Before recording the final plat, the applicant shall:

1. Update plat notes related to easements and maintenance in a manner directed by the Town Engineer.
2. Make other minor modifications as directed by Town Staff, Engineer and Town Attorney.
3. Staff PowerPoint Presentation (PDF)
4. Land Use Application
5. Letter of Intent/Narrative
6. Bennett Avenue Townhome Final Plat
7. Combined Staff and Referral Agency Comments
8. Traffic Study
9. Proposed Resolution No. 2022-02

# Case No. 21.21 <br> Bennett Avenue Townhome Final Plat 

Planning and Zoning Commission

January 24, 2022
Steve Hebert, Planning \& Economic Development Manager

## Proposed Bennett Avenue Townhome <br> Final Plat

- 1.5 Acres
- Zoned R-3 - High Density Residential
- Subdivide to create 19 townhome lots
- Average lot size is 2,400 sq. ft.
- Internal private drive




## Availability of Public Infrastructure

- Access - Bennett Avenue and a new internal private street
- Water and Sewer - Town of Bennett
- Stormwater - Off-site conveyance
- Fire Protection - Bennett-Watkins Fire Rescue
- Law Enforcement - Adams County Sheriff
- Electricity - IREA
- Natural Gas - Colorado Natural Gas
- Telecom - Eastern Slope Technologies
- Bennett School District - Cash-in-lieu


## Staff Findings on Case No. 21.21

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:

- Generally consistent with the Sketch Plan, with updates and improvements.
- All applicable technical standards in accordance with the Subdivision Regulations and adopted Town documents will be met.
- The proposed lot configuration will accommodate new development that meets the standards of good subdivision design.
- The final plat document will accommodate extension of utilities and public services to serve future development.
- Public facilities include an improved park and trails.
- All lots meet the standards of R-3 - High Density Residential District


## Staff Recommendation

Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-02 recommending approval of the Bennett Avenue Townhome Final Plat, with the following conditions:

Before recording the final plat, the applicant shall:

1. Update plat notes related to easements and maintenance in a manner directed by the Town Engineer
2. Make other minor modifications as directed by Town Staff, Town Engineer and Town Attorney.

(See Draft Resolution)



All Submittal Requirements must accompany this application. All applicable fees must be paid at the time of application. Any extraordinary cost incurred by the Town of Bennett in reviewing and processing this application is the responsibility of the applicant.

An executed cost agreement must be attached to this application pursuant to Sec. 16-1-325 of the Bennett Municipal Code.

I understand this is an application only, it must be approved by the Town, and any required building permits must be obtained before the property can be used in accordance with the request. I hereby acknowledge all of the above information is correct.

Applicant's Signature:
 Date: $6-14-202$

## Attached Legal Description

That part of the Northwest $1 / 4$ Northwest $1 / 4$ of Section 34 , Township 3 South, Range 63 West, 6 th P.M.:
Beginning at a point 660 feet East of the Northwest corner of Section 34 on the North boundary line of said section;
Thence East along the North line of said Section, 300 feet;
Thence South at right angles to said boundary line 218 feet;
Thence West at right angles to last named line 300 feet;
Thence North at right angies to last named line 218 feet to the point of beginning.
County of Adarns, State of Colorado.

# DATO INVESTMENTS LLC P.O. Box 3290 <br> Parker, CO 80134 

## LETTER OF INTENT

The purpose of this document is to describe the intent of the proposed project on 1.5 acres located at 300 Bennett Avenue.

The Developer, Dato Investments LLC, intends on developing the property at 300 Bennett Avenue into a townhouse development consisting of twenty, two story townhomes with attached two car garages and a private fenced back yard. These townhomes are projected to be in the low $\$ 300,000$ 's price range. We are already responding to inquiries about this project from several prospective Buyers.

Dato Investments LLC has recently just completed a development consisting of twenty four townhomes on the 200 block of Ash Street, which is located just a few blocks from this proposed development. The Ash Street project was completely sold out prior to the start of construction of each building. The product at the 300 Bennett Ave project will be a similar design to the Ash Street development.

Our intent is to construct an affordably priced multi-family product that does not currently exist in the Bennett area.

## BENNETT AVENUE TOWNHOMES SUBDIVISION

## FINAL PLAT

A SUBDIVISION OF A PORTION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 34 TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE SIXTH PRINCIPAL MERIDIAN

TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


## OWNERSHIP AND DEDICATION

know all men by these presents, that the undersigned, dato investments, LLC, A COLORADO LIMITED LIABILITY COMPANY, BEING THE
SHOWN IN THIS FINAL PLAT AND DESCRIBED AS FOLOWS:
A PARCEL OF LAND LOCATED IN THE NORTHWEST ONE-QUARTER OF SECTION 34 TOWNSHP 3 SOUTH, RANGE 63 WEST OF THE
MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 34;
THENCE NORTH $89^{\circ} 02^{\prime} 47^{\prime \prime}$ EAST ALONG THE NORTH LINE OF THE NORTHWEST
QUARTER OF SAID SECTIN 34 A DISTANCE OF 660.00 FEET TO THE POINT OF
THENCE CONTINUING ALONG SAD NORTH LINE, NORTH $89^{\circ} 02^{\prime} 47^{\prime \prime}$ EAST A DISTANCE OF HENCE DEPARTING SAID NORTH LINE SOUTH $00^{\prime} 57^{\prime} 13^{\prime \prime}$ EAST A DISTANCE OF 218.00 THENCE SOUTH $89^{\circ} 02^{\prime} 7^{\prime \prime \prime}$ " EAST A DISTANCE OF 300.00 FEET HENCE NORTH $00^{\circ} 57^{\prime} 13^{\prime \prime}$ WEST A DISTANCE OF 218.00 FEET TO A POINT ON SAID CONTAINING $\pm 65,400$ SQ. FEET OR $\pm 1.501$ ACRES, MORE OR LESS

HAS LAID OUT, SUBDIVIDED AND PLATTED SAID LAND AS PER DRAWING HEREO CONTAINE UNDER THE NAME AND STYLE OF BENNETT AVENUE TOWNHOMES, A
SUBDIVIION OF A PART OF THE TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO, AND BY THESE PRESENTS DOES HEREBY DEDICATE TO THE TOWN OF BENNETT AND ALL SERVING PUBLIC UTLITIES (AND OTHER APPROPRIATE ENTTITES)
THOSE PORTION OF SAID REAL PROPERTY WHICH ARE SO DESIGNATED AS EASEMENTS AND TRACTS AS SHOWN.
it IS EXPRESSLY UNDERSTOOD AND AGREED BY THE UNDERSIGNED THAT ALL EXPENSES AND COSTS INVOLVED IN CONSTRUCTING AND INSTALLING SANTIARY SEWER
SYSTEM WORKS AND LINES, WATER SYSTEM WORKS AND LINES, GAS SERVICE LINES, ELECTRICAL SERVICE LINES, WATER SYSTEM WORKS AND LINES, GAS SERVICE LINES, PAVEMENT, SIDEWALKS, AND OTHER SUCH UTLITTES AND SERVICES SHALL BE GUARANTEED AND PADD FOR BY THE SUB-DIVIDER AND ARRANGEMENTS MADE BY THE
SUB-DIIDER, THEREOF WHICH ARE APPROVED BY THE TOWN OF BENNETT, COLORADO,
 TEM SO CONSTRUCTED OR INSTALLED WHEN ACCEPTED BY THE TÓWN OF BENNETT
SHALL BECOME THE SOLE PROPERTY OF SAID TOWN OF BENNETT, COLORADO, EXCEPT
 AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION, WHICH WHEN CONSTRUCTED OR NSTALLED SHALL REMAIN AND/OR BECOME THE PROPERTY OF BENNETT AVENUE
TOWNHOMES HOMEOWNERS ASSOCIATION AND SHALL NOT BECOME THE PROPERTY OF THE TOWN OF BENNETT, COLORADO.

## OWNERSHIP CERTIFICATE

OR: DATO INVESTMENTS, LLC, A COLORADO LIMTED LIABILITY COMPANY

BY: DAVID STOCKMAN TTS MANACER-

## DATE

## NOTARY ACKNOWLEDGMENT

STATE OF $\qquad$ ) ss.

THE FOREGOING CERTIFICATE OF DEDICATION AND OWNERSHIP WAS ACKNOWLEDGED AS MANAGER OF DATO INVESTMENTS, LLC, A COLORADO LIMITED LAABLITY COMPANY.

NOTARY PUBLIC
MY COMMISSION EXPIRES: $\qquad$
ADDRESS OF NOTARY: $\qquad$

| SITE DATA TABLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SITE ACRE | EAGE | $\pm 65$, | ,400 SQ FT. OR $\pm 1.501$ A | ACRES |  |
| LOTS |  |  |  |  |  |
| NUMBER OF LOTS 19 UNTS |  |  |  |  |  |
| GROSS DENSITY OF LOTS $79.11 \%$ |  |  |  |  |  |
| MINIMUM | LOT SIZE | 2,40 | SQ. FT. |  |  |
| AVERAGE LOT SIZE 2,723 SQ. FT. |  |  |  |  |  |
| MINIMUM LOT WIDTH 25 FEET |  |  |  |  |  |
| TRACTS |  |  |  |  |  |
| TRACT | $\begin{gathered} \text { SIZE } \\ (\mathrm{SQ.} . \mathrm{FT} .) \end{gathered}$ | PERCENTAGE | PURPOSE |  | OWNERSHIP |
| TRACT A | 1,632 | 2.50\% | PARKING, UTLLITY AND SIDEWALK EASEMENTS |  | BENNETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION |
| TRACT B | 10,588 | 16.19\% | PRIVATE ACCESS ROAD A UTILITY EASEMENT | $\text { AND } \begin{aligned} & \mathrm{B} \\ & \mathrm{H} \end{aligned}$ | BENNETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION |
| TRACT C | 1,445 | 2.21\% | OPEN SPACE, UTLITY EASEMENT, MAINTENANCE ACCESS |  | BENNETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION |

## BOARD OF TRUSTEES APPROVAL

this is to certify that the plat of bennett avenue townhomes was approved AND THAT THE MAYOR OF THE TOWN OF BENNETT HEREBY ACKNOWLEDGES SAID PLAT thereon.

MAYOR
ATTEST: TOWN CLERK

## LENDER CONSENT

HE UNDERSIGNED AS THE BENEFICIARY OF A DEED OF TRUST RECORDED WITH HE ADAMS COUNTY CLERK AND RECORDER AT RECEPTION NUMBER
 TRACTS AND OTHER PUBLLC PLACES DEDICATED TO THE TOWN OF BENNETT AS
SHOWN ON THIS FINAL PLAT OF BENNETT AVENUE TOWNHOMES, AND HEREBY OREVER RELEASES SAID LANDS FROM SUCH UEN

INBANK
, LENDER

## NOTARY ACKNOWLEDGMENT

state of $\qquad$ ) Ss.

ThE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS OY OF ——— 20—,
NESS MY HAND AND OFFICIAL SEAL.
NOTARY PUBLIC
MY COMMISSION EXPIRES:
SURVEYOR'S CERTIFICATE
RICHARD B. GABRIEL, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF RICHARD B. GABRIEL A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF
COLORADO, DO HEREBY CERTIFY THAT THIS LAND SURVEY PLAT CORRECTLY
REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNER MY DIRECT REPREENTS THE RESULTS OF A SUREY MADE BY ME OR UNDR MY DRECT
SUPERVISION ON MAY 18, 2021, THAT THE MONUMENTS SHOWN HEREON ARE OF THE
 CHARACTER SHOWN AND OCCUPY THE POSITIONS INDICAED AND THAA ALL NOTES,
DIMENSIONS AND IMROVEMENTS ARE CORRETLY SHOWN HEREIN TO THE BEST OF MY
KNOWLEDGE AND BELILF. kNOWLEDGE AND BELEF.


COUNTY CLERK AND RECORDER'S CERTIFICATE 1 HEREBY CERTIFY THAT THIS PLAT WAS FILED IN THE OFFICE OF THE CLERK AND
RECORDER OF ADAMS COUNTY, COLORADO AT OOCLOCK -M. ON THIS RAY OFCPTION NUMBER $\qquad$ CERK AND RECORDER

## PLAT NOTES

- THE TRACTS SHALL BE OWNED AND MAINTANED BY BENNETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION, ITS SUCCESSORS OR ASSIGNS. THE UNDERSIGNED GRANTS
THE TOWN THE TOWN OF BENNE A PERPETUAL RIGH OF INGRESS AND EGRESS
SAID TRACTS. THE TOWN SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO TO
 WHEN THE OWNER(S) FALL TO ADEQUATELY MANTAIN SUCH TRACTS AND RELATED
FACIITIISS, WHICH MAINTENANCE, OPERATON AND RECONSTRUCTION SHALL BE AT THE FACILTIES, WHICH MAINTENANCE, OPERATION
COST OF SAID HOMEONNERS ASSOCIATION.

2. THE POLICY OF THE TOWN REQUIRES THAT MAINTENANCE ACCESS SHALL BE PROVIDED
TO ALL STORM DRAINAGE FACILTIES TO ASSURE CONTINOUS OPERATIONAL CAPABLLTY


 BENNET SHALL HAVE THE RIGHT BUT NOT THE OBLIGATION TO ENTER SAID LAND
FOR THE SOLE PURPOSE OF OPERATONS AND MAITTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER(S).
3. SURFACED ACCESS ROADS CAPABLE OF WITHSTANDING THE IMPOSED LOADS OF FIRE
APPARATUS AND ALL REQUIRED FIRE HYDRANTS SHALL BE INSTALLED AND MADE APPARATUS AND ALL REQUIRED FIRE HYDRANTS SHAL
SERVICEABLE PRIOR TO AND DURING CONSTRUCTION.
all internal road and drainage facility construction shall be in ACCORDANCE WITH STREET CONSTRUCTION PLANS, PAVEMENT DESIGN GRADING AND

4. NOTICE IS GIVEN THAT THIS SUBDIVISION WILL BE SUBJECT TO RECORDED DECLARATION OF COVENANTS, CONDTIONS AND RESTRICTIONS. THE TOWN OF BENNETT
I NOT RESPONILEE FOR ENFRCEMNT OF THE RECORED COVENANS, CONDITONS
AND RESTRICTIONS THAT .
5. THERE ARE NO SIGNFICANT NATURAL DRAINAGE COURSES, GEOLOGIC HAZARD AREAS,
OR OTHER NATURAL FEATURES WITHIN OR ADJACENT TO THE SUBDVIIION.
6. NON-EXCLUSIIE UTLLITY EASEMENTS LOCATED AS SHOWN ARE HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTLITIES AND DRAINAGE
 AS PERPETUAL RGGT FOR INGRESS AND EGRESS FOR NSTALLATIN, MANTENANCE, AND REPLACEMENT OF SUCH LINES. WINDOW WELLS, PATIOS, DECKS, STARS,
RETANING WLLS, AND THEIR COMPONENTS MAY NOT ENCROACH INTO THE REQUIRED RETAINING WALLS, A
UTLITY EASEMENTS.
7. NON-EXCLUSIVE 1.8-FOOT SIDEWALK EASEMENT LOCATED AS SHOWN IS HEREBY
GRANTED FOR THE INSTALLATIN, MAINTENANCE, AND OPERATION OF SIDEWALKS GRNEXCLUSIE 1.8-FOOT SIDEWALK EASEMENT LOCAIED AS SHOWN IS HEREBY
GRUNED FR TE INSTLLTIN, MANTEANE, AND OPERATION OF SIDEWALKS
RUNNG PARALEL WTTH STREET RIGHTS-OF-WAY.
8. THIS PLAT CONTAINS 19 MULT-FAMLIY LOTS AND THREE TRACTS, AS SHOWN IN THE
SITE DATA TABLE ON SHEET 1 OF THIS PLAT DOCUMENT.
9. SHOWN HEREON (WITHIN AN EASEMENT GRANTED TO THE TOWN OF BENNETT) DRAINAGE FACILTIES SHALL BE CONSTRUCTED AND MAINTAINED BY THE HEMEOOWNERS
ASSOCIATION AND SUBSEQUNT OWNERS, HEIRS, SUCCESSORS AND ASSIGNS. THE TOWN HAS THE RIGHT TO ENTER THE PROPERTY TO CONDUCT PERIODIC INSPECTIONS OF THE DRAINGEE FACILTTEN. IN THE EVENT THAT SAID CONSTRLCTION AND
MANTENANCE IS NOT PERFORMED BY SED HOMEOWNERS ASSOCIATION AND MAINTENANCE IS NOT PERRORMED BY SAID HOMEOWNERS ASSOCIATION AND
SUBSEQUET OWNERS, HEIRS, SUCCESSORS AND ASIGNS, THE TWN OF BENET
SHALL, WITHOUT WAVING ANY OTHER RIGSTS AVAILABLE T TT, HAVE THE RIGHT TO
 PERFORM THE NECESSARY WORK, THE COST OF WHICH SAID HOMEOWNERS
ASSOCIATION AND SUBSEQUENT OWNERS, HEIRS, SUCCESSORS AND ASSIGNS AGREES ASSOCIATION AND SUBS
TO PAY UPON BILLING.
10. THE STORM WATER DETENTION FACILITY THAT WILL SERVE THIS PROPERTY IS LOCATED
IMMEDIATELY SOUTH OF THIS SUBDVIISION IN TRACT A BENNETT CROSSING FILING NO. 2 LANDSCAPE \& DRAINAGE AREA.
11. NO BUILDING OR STRUCTURE SHALL BE CONSTRUCTED WITHIN THE STORMWATER CHANGES OR ALTERATIONS AFFECTNG TE HYDRAUIG CHBACTERISTCS O. 2 AND No CETENTION AREA WLLL BE MADE WITHOUT THE APPROVAL OF THE TOWN OF BENNETT.

## PLAT NOTES

13. TRACT A IS FOR PRIVATE PARKING, UTLITY EASEMENT, AND SIDEWALK EASEMENT, TRACT A SHALL BE OWNED
HOMEOWNERS ASSOCIATON.
14. TRACT B IS FOR A PRIVATE ROAD ACCESS AND UTLITY EASEMENT PARKING WILL
NOT BE ALLOWED IN TRACT B. TRACT B SHALL BE OWNED AND MAINTNED BY THE NNT BEE ALLOWRD IN TRACT B. TRACT B SHALL BE OWNE
BENNETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION.
15. TRACT $C$ IS FOR OPEN SPACE, UTILITY EASEMENTS, AND MAINTENANCE ACCESS TO
DETENTON FACILITES. TRACT C SHALL BE OWNED AND MAINANED BY THE BENETT AVENUE TOWNHOMES HOMEOWNERS ASSOCIATION.
16. THE TOWN OF BENNETT IS NOT RESPONSIBLE FOR THE ENFORCEMENT OF PRIVATE COVENANNS, CONDIIONS AND RESTTIITTONS THE TOME ENFORCEMENT OF PRIVATE
BE CREATED AND IN PLACE PRIOR TO RECORDING OF THIS PLAT.
17. A BLANKET DRAINAGE EASEMENT, EXCLUDING BULDING FOOTPRINTS AND EXCLUSIVE ASEMENTS, IS HEREBY GRANTED TO AND BETWEEN ALL LOTS WITHIN THE
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21. ACCESS FROM BENNETT AVE. TT THE SUBDIVIION IS PROVIDED VIA THE

## SURVEYOR'S NOTES

1. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED
UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVE SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFIRT IN THIS SURVEY BE COMMENCED MORE
CERTIFICATION SHOWN HEREON.
2. THIS SURVEY DOES NOT CONSTIUUTE A TITLE SEARCH BY POWER SURVEYING, INC.
FOR INFORMATION REGARDING BOUNDARY, EASEMENTS AND TITLE, POWER SURVEYNG, INC. RELIED UPON FIDELTTY NATIONAL TITLE COMPANY COMMITMENT NO
3. FLOOD ZONE DESIGNATION: THE SUBJECT PROPERTY LLES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2\% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON
4. FIELD SURVEY COMPLETION DATE: MAY 18, 2021.
5. UNIT OF MEASUREMENT: U.S. SURVEY FOOT.
6. NON-EXCLUSIVE 8-FOOT, 10-FOOT AND 15-FOOT UTLITY EASEMENTS LOCATED AS SHOWN ARE HEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION
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7. BASIS OF BEARINGS: BEING THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 34, TOWNHII 3 SOUTH, RANGE 63 WEST OF THE SIXTH PRINCIPAL
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## EASEMENT AREAS



TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


## BENNETT AVENUE TOWNHOMES SUBDIVISION

A SUBDIVISION OF A PORTION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 34,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE SIXTH PRINCIPAL MERIDIAN
TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


| TO: | David Stockman <br> Tom Richardson <br> Chad Fabre | VIA Email |
| :--- | :--- | :--- |
| FROM: | Steve Hebert, Planning and Economic Developmbors. |  |
| DATE: | August 3, 2021 |  |
| SUBJECT: | Case No. 21.21-300 Bennett Ave Townhomes Final Plat Referral Comments - First <br> Submittal |  |

By this memo and related email, I am transmitting the referral agency comments we have received todate on the proposed 300 Bennett Ave Townhomes Final Plat - First Submittal, as well as the related grading and utility plans.

## Referral Agencies with Responses as of July 29, 2021

- Town of Bennett Planning
- Town of Bennett Town Engineer
- Town Traffic Engineer
- Town Attorney
- Bennett-Watkins Fire Rescue
- Intermountain Rural Electric Association (IREA)
- Bennett School District 29J (Same referral received for previous sketch plan)


## Your Review

Please review all comments and make changes and updates as appropriate to the plat documents. When you are ready to resubmit, please include a response to all referral agency comments in letter/memo form as well as responses to any redlined comments on the plat document. Please call or email me if you have any comments or questions.

## Resubmittal

Once you resubmit, we will refer the second submittal for a two-week review. Given the nature of the first set of comments, I would expect that review to be relatively straightforward. We will then be able to schedule the Planning and Zoning Commission hearing. Depending on your response time, we may be able to make the Commission meeting on September 20, 2021. The Board of Trustees hearing will follow that, conceivably as soon as September 28 or October 12.

## Site Plan Required

Also, remember that a site plan is required for this project. The site plan will be similar to the final plat in layout, but will show much more detail re: landscaping, site lighting, building elevations, etc. Although it is an administrative process that can follow the final plat, we encourage you to prepare that
soon, given it will be required prior to the issuance of any building permits. I have attached a copy of our Site Plan Applicant Guide.

Subdivision Agreement
A subdivision agreement that addresses all public improvements will be required. The Town's template is attached to the accompanying email.

LOT / TRACT SUMMARY

| Area | Sq. Feet | Acres |
| :---: | :---: | :---: |
| LOT 1 | 2,667 | 0.061 |
| LOT 2 | 2,400 | 0.055 |
| LOT 3 | 2,856 | 0.066 |
| LOT 4 | 2,856 | 0.066 |
| LOT 5 | 2,400 | 0.055 |
| LOT 6 | 2,856 | 0.066 |
| LOT 7 | 2,856 | 0.066 |
| LOT 8 | 2,400 | 0.055 |
| LOT 9 | 2,880 | 0.066 |
| LOT 10 | 2,885 | 0.066 |
| LOT 11 | 2,400 | 0.055 |
| LOT 12 | 2,760 | 0.063 |
| LOT 13 | 2,760 | 0.063 |
| LOT 14 | 2,400 | 0.055 |
| LOT 15 | 2,400 | 0.055 |
| LOT 16 | 2,760 | 0.063 |
| LOT 17 | 2,760 | 0.063 |
| LOT 18 | 2,400 | 0.055 |
| LOT 19 | 2,400 | 0.055 |
| LOT 20 | 2,880 | 0.066 |
| TRACT A | 1,899 | 0.044 |
| TRACT B | 10,526 | 0.242 |
| Total | 65,400 | 1.501 |

Move FINAL PLAT to
below main heading

FINALPLAT
BENNETT AVENUE TOWNHOMES - FILING NO. 1
APORTION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 34,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE SIXTH PRINCIPAL MERIDIAN
TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO

## LENDER CONSENT


 SHOWN ON THIS FINAL PLAT OF BENNETT.
RELEASES SAID LANDS FROM SUCH LEN.
, LENDER

## If we don't expect Filing 2, delete <br> Filing 2, delete FILING NO 1

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TOWN OF BENETT, COLORADO.

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Why is this note
here? It doesn't
here? It doesn't apply
OWNERSHIP CERTIFICATE
for: dato investments, llc, a colorado limited lability company

BY: DAVID STOCKMAN, ITS MANAGER -
NOTARY ACKNOWLEDGMENT See Standard state of $\qquad$ ) ) ss. COUNTY OF $\qquad$ The foregoing certificate of dedication and owne necessary.

$\overline{\text { NOTARY PUBLIC }}$
my Commission expries:
ADDRESS OF NOTARY:
$\qquad$ Bennett Plat notes in
separate MS Word Doc. Adjust to fit this

necessary.
BY DAVID
COMPANY.
$\qquad$

THE FOREGOING INSTRUMENT WAS ACKNowledged before me this ___ day
witness my hand and official seal.
NOTARY PUBLIC
WY COMMISSION EXPIRES
PLAT NOTES THAT WILL SERVE THIS PROPERTY IS LOCATED IMMEDIATELY SOUTH OF THIS SUBDIVISION IN BENNET
CROSSING FILING NO.
THIS PAAT CONTANS 20 MULTI-FAMLY LOTS AND TWO TRACTS, AS SHOWN IN THE
LOT/TRACT SUMMARY ON THIS SHEET OF THIS PLAT DOCUMENS.
the storm water detention facility is on bennett cros
Shomn hereon (within an easement granted to the town of alng no. 2.

 THE EVENT THAT SADD CONSTRUCTION AND MANTENANCE S SNT PERFRNMED FAC SAID
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TRACT A AND RAAT B ARE FOR PARKING AND ACCESS AND UTLITY EASEMENT AND SHALL
BE OWNE AND MANTANED BY THE BENNETT AVENUE TOWNHOMES HOME OWNERS ASS Selation.
THE TOWN OF BENNETT IS NOT RESPONSIBLE FOR THE ENFORCEMENT OF PRIVATE
COVENANTS, CONDITIONS AND RESTRICTONS. THE HOMEOWNERS ASSOCIATION SHALL B COVENANTS, CONDITIONS AND RESTRLCTIONS. THE HOMEOWNERS
CREATED AND IN PLACE PRIOR TO RECORDIN OF THIS PLAT.
8. A blanket drainage easement, Excluding bulling footprints and exclusive


9. FOR SUBDIIIIIN BOUNDARY MONUMENTATION MINIMUM STANDARDS FOR MONUMENTS MUST
CONFRM TO THE COLORADO REVISED STAUUTES 2017, MONUMENTATION OF SUBOIVIIONS,
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12. EXPANSIVE SOILS ARE KNOWN TO EXIST ON THE SITE. WHERE THESE CONDTTIONS ARE


## BOARD OF TRUSTEES APPROVAL

 $\bar{M} A Y R$ OF ThE TOWN OF BENNETM HEREBY ACKNOLLEDEES SAID
CERTIFICATE IS UPON WHICH THIS
ENDORSED FOR ALL PURPOSES INDICATED THEREON.


## VICINITY MAP

SURVEYOR'S NOTES
ACCORDING TO COLORADO LLW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY
DEFECT NN THIS SUVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED.
2. THIS SURVEY doEs NoT constitute A title search by power surveying, inc. For
INFORMATION REGARDING BOUNDARY, EASEMENTS AND TITLE, POWER SURVEYNG, INC. RELIED UPON FIIELLTY NATIONAL TITLE COMPAAN COMMITMENT NO. FO699390-122-VOO, WITH AN
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3. FLOOD ZONE DESIGNATIN: THE SUBJECT PROPERTY LLES WITHIN ZONE "X" (AREAS FI.R.M. MAP $08001 \mathrm{CO718H}$, WITH AN EFF
. FIELD SURVEY COMPLETION DATE: MAY 18, 2021
5. UNIT OF MEASUREMENT: U.S. SURVEY FOOT.
6. ALL INTERIOR STREETS WIHHN THIS FINAL PLAT ARE HEREBY DEDICATED to the town of
BENETT PER THIS FINAL PLAT. 7. NON-EXCLUSIVE 5-FOOT, 6-FOOT 10-FOOT AND 15-FOOT UTIITY EAAEMENTS LOCATED
AS SHOWN ARE HEREBY GRANTED FOR THE INSTALLATON, MAINTENANCE, AND OPERATON OF

 LINES, AS WEL AS PERPETUAL RIGHT FOR INGRESS
8. BASIS OF BEARING: BEING THE NORTH LINE OF THE NORTHWEST QUARTER (NW $1 / 4$ ) OF


9. The SUbuect property contains $\pm 65,400$ Square feet or $\pm 1.501$ acres of land.

## SURVEYOR'S CERTIFICATE

l, RICHARD B. GABRIEL, A LICENSED PROFESSIINAL LAND SURVEYOR IN THE STATE OF
COLORADO, DO HEREBY CERTIFY THAT THIS LAND SURVEY PLAT CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNDER MY DRECT SUPERVSION ON MAY 18, 2021


RICHARD B. GABRIEL, P.L.S. Colorado License No. 37929
For and in behalf For and on behalf of
power Surveying Company


COUNTY CLERK AND RECORDER'S CERTIFICATE


RECEPTION NUMBER
CLERK AND RECORDER

Change title per comments on Sheet 1.

TOWNSHIP 3 SOFTHE NANGE 63 WEST OFTHE SIXTH PRNCIPAL MERIDIA




# RE: 300 Bennett Ave Townhomes Final Plat Referral <br> 1 message 

Melinda Culley [melinda@kellypc.com](mailto:melinda@kellypc.com) To: Steve Hebert [shebert@bennett.co.us](mailto:shebert@bennett.co.us) Cc: Sara Aragon [saragon@bennett.co.us](mailto:saragon@bennett.co.us)

Wed, Jul 28, 2021 at 2:28 PM

Thanks, Steve.

My only comments on this plat are:

- Plat Note \#5 states that the Bennett Ranch Metro District is responsible for maintenance, repair and mosquito control on Tract A, Bennett Crossing Filing No. 1. Is that note relevant to this plat? If so, should it refer to Filing No. 2? Please explain what requires the Metro District to maintain and repair this area. The Non-Exclusive Drainage Easement you provided is with LGI and not the Metro District. It also does not specifically mention mosquito control.


## Melinda A. Culley

Kelly PC
$99918^{\text {th }}$ Street, Suite 1450 S
Denver, CO 80202

P: (303) 298-1601 x212
F: (303) 298-1627
Cell: (316) 640-1013
 MUNICIPAL LAWYERS cst. 1987
******* CONFIDENTIALITY NOTICE *******
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From: Steve Hebert [mailto:shebert@bennett.co.us]
Sent: Wednesday, July 28, 2021 1:51 PM
To: Melinda Culley
Cc: Sara Aragon
Subject: Re: 300 Bennett Ave Townhomes Final Plat Referral

I inadvertently deleted that link. Here it is again:

300 Bennett Ave Townhomes Final Plat Docs

On Wed, Jul 28, 2021 at 1:29 PM Melinda Culley [melinda@kellypc.com](mailto:melinda@kellypc.com) wrote:

Hi Steve and Sara,
I just tried clicking on the Dropbox links for the 300 Bennett Ave Final Plat and for the Sonic FDP and I received a message saying the files have been deleted. Can you try resending those links?

Thanks.

## Melinda A. Culley

Kelly PC
$99918^{\text {th }}$ Street, Suite $1450 S$
Denver, CO 80202


Kelly cMUNICIPAL LAWYERS cst. 1987
******* CONFIDENTIALITY NOTICE *******
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From: Town of Bennett Planning [mailto:planning@bennett.co.us] Sent: Thursday, July 8, 2021 11:19 AM
To: Steve Hebert; Daniel Giroux; Gabrielle Renner; Victoria Flamini; Daymon Johnson; ksmalley@adcogov.org; Caleb Connor; sarah.e.zawatzki@usps.gov; robinp@bsd29j.com; kendrickplanning@gmail.com; Director@bennettrec.org; JGutierrez@summitutilitiesinc.com; GVanderstraten@

# summitutilitiesinc.com; Patw@esrta.coop; Brooks Kaufman; Melinda Culley; gburke@jehnwater.com; Robin Price; Adam Peake; admin@i70reap.com <br> Cc: Sara Aragon; Rachel Summers <br> Subject: 300 Bennett Ave Townhomes Final Plat Referral 

All,

Below is a Dropbox link to the submittal documents for the proposed 300 Bennett Avenue final plat. We appreciate your review and comments. Please send your comments back via this email address by 5:00 PM July 28, 2021. If you have any questions, please call or email Steve Hebert at the number email address below.

300 Bennett Ave Townhome Referral

To: Steve Hebert, AICP, Bennett Planning \& Economic Development Manager
From: Gabrielle Renner, PE PTOE RSP1
Town Traffic Engineer
Date: 8/3/2021
Re: Town Land Use Case 21.21: 300 Bennett Avenue Townhomes Final Plat Town Traffic Engineering Review

The 300 Bennett Avenue Townhomes Final Plat application materials were submitted on July 8,2021 . The application materials were reviewed, and the following comments have been provided by the Town Traffic Engineer.

- No concerns about vehicle circulation and onsite guest parking will help with parking impacts.
- Is there any internal sidewalks being provided? It would be good to provide sidewalk connections to the Bennett Avenue sidewalks. It is a safety concern to have residents walking on the narrow private drive to access the Town sidewalks. The Town does provide an extensive sidewalk and paths connectivity within the Town.
- There is concern that the driveway cut type might not support emergency vehicles or waste collector vehicles. Please provide additional information for the curb return radii following the Town of Bennett Roadway Design and Construction Standards.
- The Traffic Impact Study (TIS) completed on April 29, 2021, was reviewed. The TIS met the requirements of the Town of Bennett Traffic Study Guidelines.
- Geometry at the intersection of SH 79 (1st Street) / Bennett Avenue needs to be updated to reflect the new lane configuration shown in Figure 1. Figure 2 shows the lane configuration that will need to be utilized for Year 2025.
- The TIS indicates the site does provide the adequate mitigation of traffic impacts for the size of the development.

Figure 1: Existing SH 79 (1st Avenue) / Bennett Avenue Lane Configuration


Figure 2: Year 2025 SH 79 (1st Avenue) / Bennett Avenue Lane Configuration


## BENNETM SCHOOL DISTRICT 29J

February 4, 2021

Town of Bennett
207 Muegge Way
Bennett, CO 80102
RE: Case No. 21.01-300 Bennett Ave - Rezoning
Dear Steve;
Bennett School District 29J is pleased to review the rezoning proposal for 300 Bennett Avenue. The application is for 1.5 acres of land being rezoned from A-2 to R-3 multifamily zoning. The proposal indicates the units will be townhomes. There is a site plan included in the application, but our understanding is that the site plan is not currently under review but will be submitted in the future along with the plat document.

The Application proposes residential development for property located within the School District's boundaries and, therefore, will have an impact on the School District's responsibility to provide adequate school facilities. Consequently, the School Dedication requirements must be met per Division 5 of the Bennett Municipal Code. If the site plan application matches with the attached plan, there will be 20 units with a unit density of 13.33 per acre. Based upon this density, we calculate the following dedication requirements:

| Housing Unit Type | Density 7 | Number of Dwelling Units | Elementary |  | Middle |  | High | Th | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Gen Rate | Students | Gen Rate | Students |  | Students | Gen Rate | Students |
|  | $\geq 2$ |  |  |  | - |  |  | 9 | $\xrightarrow{2}$ |  |
| SFD | 0-7.49 du/ac |  | 0.36 | Mne | - 0.18 |  | 0.24 |  | 0.775 | 0 |
| MF/Mid Density | 7.5-14.99 du/ac | 20 | 0.17 | 3.4 | D 0.08 | 1.6 | 0.11 | 2.2 | 0.364 | 7.28 |
| MF/High Density | $15 \mathrm{du} / \mathrm{ac}+$ |  | 0.09 |  | 0,04 |  | 0.06 | 13 | 0.195 |  |
| Acres per Student | Elementary |  | Middle |  | High |  | Total |  |  |  |
|  | Number Students | Acres | Number Students | Acres | Number Students | Acres | Number Students | Acres |  |  |
| 0.0597 | 3.4 | 0.20 | - 1.6 | 0.10 | 12.2 | 0.13 | 7.2 | 0.43 |  |  |

The District will discuss the land dedication requirements with the Developer as the project moves forward anticipating that cash-in-lieu of land will be required due to the project size and location within the District. A development agreement will be drafted with the final plat approval to confirm the school dedication requirements.

Additionally, the site location has the potential to allow families and students to walk or ride to school. Identifying safe pedestrian routes is important for the District, Town and applicant to consider moving forward into the site planning process.

## BENNETT SCPOOL DISTRICT 29J

Finally, the District is engaged in a Master Plan update that will result in forecasting growth within the District boundaries and the approximate location of new school sites and associated facilities. We are working with the Town's and Counties to assist in the analysis and planning to ensure the best outcome for the communities moving forward. The majority of our work should be completed the first half of the year. We believe this will have a positive benefit for 300 Bennett Avenue.

The School District respectfully requests the opportunity to amend and supplement this letter, as appropriate, to update the Town Planning Department as to the School Districts' and the Developer's agreements concerning land dedication or cash in-lieu payment as a way to mitigate the impact the development will have on the schools. The District looks forward to working with the developer to address the dedication and safe routes to school as they move through the site planning and platting process.

Sincerely,
 School Superintendent


# Bennett-Watkins Flipe Rescue 

District Dffice: 303-644-3572 Fax: 303-644-3401 $3554^{\text {th }}$ Street, Bennett, CO 80102
Email: LifeSafety@BennettFireRescue.org
"Striving to Preserve Life and Property"

July $12^{\text {th }}, 2021$
Steve Hebert
Town Planner
Town of Bennett
Re: 300 Bennett Avenue Townhome Final Plat - Case 21.21
Planner Hebert,

In regards to the submission for 300 Bennett Avenue Townhome Final Plat - Case 21.21, Bennett-Watkins Fire Rescue (BWFR) has the following comments and considerations:

- The developer shall confer with Bennett Fire Protection District and ensure that the proposed development conforms to adopted (IFC) fire code standards.
- The developer shall ensure the proposed municipal water systems pertaining to hydrant distribution fire suppression is adequate to protect the proposed development as well as meet design expectations of both the Town of Bennett as well as Bennett-Watkins Fire Rescue. Considerations for design requirement shall include adopted codes and standards as well as ISO distribution and fire flow requirements.
- The applicant will be required to submit a separate site overview and fire hydrant model exhibit demonstrating the placement and distances of all fire hydrants throughout the development directly to the Fire District. This model will be reviewed for IFC Appendix C compliance. Separate fees and submission for this review are required directly with the Fire District.
- The applicants current utility plans do not reflect adequate fire hydrant coverage for the entire development. The applicant should add additional hydrant(s) along the $26^{\prime}$ internal private drive to cover the southernmost townhome structures. The applicant should confer directly with the Fire District to identify an approved hydrant layout prior to plat approval.
- It is recommended that the developer work directly with Bennett-Watkins Fire Rescue, ISO, and Town of Bennett Staff to provide and review information pertaining to the needed fire flows for the proposed development. This information should be vetted against International Fire Code Requirements as well as ISO requirements. It is also likely that this information will also be required by the Town to include for hydraulic system modeling.
- Fire hydrant installation shall conforming to the painting and color coding system outlined in NFPA 291. The developer/install contactor is responsible for ensuring all hydrants are painted conforming to the TOB/BWFR standards.
- The proposed attached development sketch plan shows streets that may include on-street parking. The design also utilizes two curves at the end of the main road inside the development. BWFR is requesting that the developer provide a modeling exhibit based on fire apparatus design criteria showing adequate widths and turning radius.
- The entire $26^{\prime}$ private concrete drive shall be identified, signed, and marked as a fire lane in accordance with IFC appendix D and no-on street parking shall be allowed at any time. On-street parking is allowable along Bennett Ave.
- Areas of the development that include wildland-urban interface, greenbelts, or other open space areas are of particular concern for the Fire District. BWFR is interested in working with the developer to ensure that adequate access is provided to these areas should there be a need for vehicle access for wildfire suppression. As each development is unique, it is recommended that the developer work directly with BWFR to examine these interface areas and determine what access and service needs exist.
- Development access requirements are based on the adopted fire code applicable to the development. Two BWFR approved access points are required after the $30^{\text {th }}$ dwelling unit is constructed. These access points are required to follow the remoteness guidelines, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses. The only exception to this requirement is if all dwelling units are constructed with approved automatic sprinkler systems and approved by BWFR.
- BWFR will incur unmet capital costs associated with new development. To address the needs of this unmet capital cost, BWFR has partnered with the Town to enact a development fee policy which establishes fees due for all new types of development. It is likely that fees will apply to the new proposed development. If the developer has additional questions or concerns regarding Fire District development fees or policies, they can contact the District Office at 303-644-3572.

Thank You


Caleb J. Connor
Fire Marshal
Life Safety Division
Bennett-Watkins Fire Rescue
303-644-3572 - Headquarters / 720-893-7672 - Direct
www.BennettFireRescue.org

## RE: Bennett Townhomes - revised site plan

## 1 message

Caleb J. Connor [CalebConnor@bennettfirerescue.org](mailto:CalebConnor@bennettfirerescue.org)
Mon, Sep 13, 2021 at 8:29 AM
To: Chad Fabre [cfabre@fabreeng.com](mailto:cfabre@fabreeng.com)
Cc: Victoria Flamini [VictoriaFlamini@bennettfirerescue.org](mailto:VictoriaFlamini@bennettfirerescue.org), "Daniel P. Giroux" [dangiroux@terramax.us](mailto:dangiroux@terramax.us), Steve Hebert [shebert@bennett.co.us](mailto:shebert@bennett.co.us), Sara Aragon [saragon@bennett.co.us](mailto:saragon@bennett.co.us)

Chad,
Sorry I am a little behind in getting you some answers on these. Please see my comments in red below.


Caleb J. Connor
Battalion Chief - Fire Marshal
Life Safety Division
Bennett-Watkins Fire Rescue
303-644-3572 - Headquarters / 720-893-7672 - Direct
www.BennettFireRescue.org

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From: Chad Fabre [cfabre@fabreeng.com](mailto:cfabre@fabreeng.com)
Sent: Friday, August 27, 2021 10:17 AM
To: 'Caleb J. Connor' [CalebConnor@BennettFireRescue.org](mailto:CalebConnor@BennettFireRescue.org)
Subject: Bennett Townhomes - revised site plan

Caleb,
Attached is an updated Site plan for the Bennett townhomes. I have a few questions on your comments per my call yesterday.

- Drive dimensions ok - Drive dimensions appear to be adequate. My concern however is that the private drive is shows as $26^{\prime}$. The apparatus design demonstration uses the entire street to function. This would mean there would be no on-street parking allowed on either side of the street. Was this your intention? That seems like it could be problematic for enforcement?
- Review new hydrant location - I think that hydrant location will work, however I think you will need to add an additional hydrant on the opposite end of the street as well. This is based on the IFC requirements that 2 hydrants with a sustained fire flow of 2000gpm is required for this type of building when non-sprinkled.

B105.1 One- and two-family dwellings, Group $R$-3 and R-4
duration requirements for one- and two-family dwellings,
Group R-3 and R-4 buildings and townhouses shall be as
specified in Tables B105.1(1) and B105.1(2).

Assuming the buildings are 5,497 sqft and Type $V$, fire flow is 2000 gpm over 2 hours. Appendix $C$ requires 2 hydrants for 2000gpm flow at 450 foot max spacing. The existing hydrants on Bennett Ave don't really count because they're on a totally different street and don't adequately cover the buildings on the south side of the private drive.

- Truck turn model - See comments on drive dimensions above.
- Fire Lane signing - Fire lane signing must comply with IFC Appendix D 103.6. See attached PDF for sign design requirements. Additionally, based on my comments above, the entire private drive would need to be a fire lane with no on-street parking allowed.

Please call me back when you get a chance.
Thanks,
Chad C. Fabre, PE
FABRE ENGINEERING Inc
2063 Pinon PI, Erie, CO 80516
720-903-0048
www.fabreeng.com

## 2 attachments



[^1]| LOT / TRACT SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Area | Sq. Feet | Acres |
|  | LOT 1 | 2,667 | 0.061 |
|  | LOT 2 | 2,400 | 0.055 |
|  | LOT 3 | 2,856 | 0.066 |
|  | LOT 4 | 2,856 | 0.066 |
|  | LOT 5 | 2,400 | 0.055 |
|  | LOT 6 | 2,856 | 0.066 |
|  | LOT 7 | 2,856 | 0.066 |
|  | LOT 8 | 2,400 | 0.055 |
|  | LOT 9 | 2,880 | 0.066 |
|  | LOT 10 | 2,885 | 0.066 |
|  | LOT 11 | 2,400 | 0.055 |
|  | LOT 12 | 2,760 | 0.063 |
|  | LOT 13 | 2,760 | 0.063 |
|  | LOT 14 | 2,400 | 0.055 |
|  | LOT 15 | 2,400 | 0.055 |
|  | LOT 16 | 2,760 | 0.063 |
|  | LOT 17 | 2,760 | 0.063 |
|  | LOT 18 | 2,400 | 0.055 |
|  | LOT 19 | 2,400 | 0.055 |
|  | LOT 20 | 2,880 | 0.066 |
|  | TRACT A | 1,899 | 0.044 |
|  | TRACT B | 10,526 | 0.242 |
|  | Total | 65,400 | 1.501 |

## OWNERSHIP AND DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, DATO INVESTMENTS, LLC, A
COLORAOO LMITED LLABLITI COMPAYY, BEING THE OWNER OF THE LAND SHOWN IN THIS FINLL
PIAT PLAT AND DESCRIBED AS FOLLOWS:
A PARCEL OF LAND LOCATED IN THE NORTHWEST ONE-QUARTER OF SECTION 34 , TOWNSHIP 3
SOUTH RANE 63 WEST OF THE SIXTH PRINCIPAL MERIDAN, BEING MORE PARTICLLARLY DESCR'BED AS FOLLOWS:
COMMENCING AT THE NORTHWEST CORNER OF SADD SECTION 34;
THENCE NORTH $89^{\circ} 2^{\prime 4} 7^{\prime \prime}$ " EAST ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF
SAD SECTON 34 A DSACE OF 660.0 TEET TO HE POINT OF BEGNNNG. SADD SECTION 34 A DISTANCE OF 660.00 FEET TO THE POINT OF BEGINNING;
THENE CONTIUUNG ALONG SAID NORTH LINE, NORTH $89^{\circ} 02^{\prime} 47^{\prime \prime}$ EAST A DISTANCE OF 300.00
THENCE DEPARTING SAD NORTH LINE SOUTH OO'57'13" EAST A DISTANCE OF 218.00 FEET;
THENCE SOUTH $89^{\circ} 0^{\circ} 2^{\prime 2} 47^{\prime \prime}$ EAST A DISTANCE OF 300.00 FEET;

CONTAINNG $\pm 64,00 \frac{\text { SO FFFT OR }+1501 \text { ACRES MORF } O \text { R IFSS }}{\text { ADD NON-EXCLUSIIE } 15 \text { FOOT UTLTI EASEMENTS LOCATED AS SHOWN ARE }}$ HAS LAD OUT, SUBHHEREBY GRANTED FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF
UNER THE NAME AUTLITIES AND DRAINAGE FACILITIES, INCLUDING, BUT NOT LIMITED TO STREET THE TOWN OF BEA BUNLITIIES AND DRAINAGE FACILTIIES, , INCLUDING, BUT NOT LIMITED TO STREET
DOES HEREBY DEDIG LIGTS ELECTRC LINES, GAS LINES CABLE TELEVISION LINES, FIBER OPTIC DOES HEREBY DEDII LINES, AND TELEPHONE LINES, AS W WELL AS PELPETUAL RIGHT FOR INGRESS
OTHER APPROPRIATE LNE



 ROADWAY CURES, GUUER AND PAYEMEN AND
UTLTIES AND OR OTHER SERVING PHELIC ENTTIESS WHICH WHEN CONSTRUCTED OR INSTALLED SHALL REMAN AND/OR BECOME IHA PROPERTY OF SUCH MUNCIPALITY FRANCHISED UTLITIES
ANDOR OTHER SERVM PUBE ENTIIES AND SHALL NOT BECOME THE PROPERTY OF THE
TOWN OF BENNETT, COLORAOOO.

OWNERSHIP CERTIFICATE
For: dato investments, llc, a colorado limited lability company
BY: DAVID STOCKMAN, ITS MANAGER -
$\square$ DATE
NOTARY ACKNOWLEDGMENT
state of $\qquad$ ), ss.
countr of
THE FOREGOING CERTIFICATE OF DEDICATION AND OWNERSHP WAS ACKNOWLEDGED BEFORE ME
THIS
DATO

$\overline{\text { NOTARY PUBLIC }}$
my COMMISSION EXPIRES:
address of notary:-

## BENNETT AVENUE TOWNHOMES - FILING NO. 1

A PORTION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 34,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE SIXTH PRINCIPAL MERIDIAN TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO

## LENDER CONSENT

THE UNDERSIGNED AS THE BENEFLCIARY OF A DEED OF TRUST RECORDED WTH THE ADAMS
COUNT CLEEK AND RECRER AT
OL THE OWNER'S PROPERTV, HEREBY CONSENTS TO THE DEDCATION OF THE STREETS, AVENUES,
EASEMENTS, TRACTS AND OTHER PUBLIC PLACES DEDICATED TO THE TOWN OF BENEET AS


## , LENDER

## NOTARY ACKNOWLEDGMENT

state of $\qquad$ ), ss.
Countr of $\qquad$

witness my hand and official seal.
$\overline{\text { NOTARY PUBLIC }}$
Yy COMmISSION EXPIRES
PLAT NOTES
THIS PLAT CONTAINS 20 MULT-FAMLI LOTS AND Two TRACTS, AS SHOWN in the
LOTTRACT SUMMARY ON THIS SHEET OF THIS PLAT DOCUMENT.
. the storm water detention facility is on bennett crossing fling no. 2.
3. SHOWN HEREON (WTTHIN NAN EASEMENT GRANTED TO THE TOWN OF BENNETT FOR SUCH

 AVAlABLE TO IT, SHALL HAVE THE RIGHT TO PERFORM THE NECESSARY WORK, THE COST
OF WHIIH SAD METRO DISTRICT, HEIRS, SUCCESSORS, AND ASIIGNS AGREES TO PAY UPON
BULING OF WHICH
BILING.
NO BULLDING OR STRUCTURE SHALL BE CONSTRUCTED WITHIN THE STORMWATER DETENTION
EASEMENT AND NO CHANGES OR ALTERATIONS AFFECTING THE HYORAULC CHARACTERISTICS EASEMENT AND NO CHANGES OR ALTERATINS AFEFCTING THE HY HRALIC CHARACTER
OF THE DETENTION AREA WLLL BE MADE WITHOUT THE APPROVAL OF THE TOWN OF
BENEI BENNETT.

TRACT A AND TRACT B ARE FOR PARKING AND ACCESS AND UTLITT EASEMENT AND SHALL
BE OWNED AND MAINTAINED BY THE BENNETT AVENUE TOWNHOES HOME OWNERS BE OWNED A
ASSOCATION.
7. THE TOWN OF BENNETT IS NOT RESPONIBLE FOR THE ENFORCEMENT OF PRIVATE COVENANSS CONDITILNS AND RESTRICTIONS THE HOMEOWNET,
CREATED AND IN PLACE PRIOR TO RECORDING OF THIS PLAT.
8. A blanket drainage easement, Excluding bulding footprints and exclusive
 THE PURPOSES OF CONVEYNG SURFACE AND SUBSURFACE STORMWATER COBNTRUCTION,
MAITEANCE, REPAR AN ACCESS TO THE MPROVEMENTS. TTE UNDERYING PROPERTY

FOR SUBDIISION BOUNDARY MONUMENTATION, MINIMUM STANDARDS FOR MONUMENTS MUST CONFORM TO THE COLORADO REVISED STATUTES 2017, MONUMENTATION OF SUBDVIIIONS,
CRS 38-51-105.
 PAVEMENT.
11. No BUILDING PERMIS WLL BE ISSUED FOR ANY LOT UNTLL ALL PUBLIC IMPROVEMENTS IN
ACCORDANCE WITH THE APPROVED CONSTRUCTON PLANS, HAVE BEEN COMPLETED AS ACCORDANCE WTH THE APRROVED CONSTRU
REQUIRD BY THE SUBDVIIIION AGREEMENT.
12. EXPANSIVE SOLLS ARE KNOWN TO EXIST ON THE SITE. WHERE THESE CONDTIINS ARE


B ADD NOTE: MONUMENTS,ORNAMENTAL COLUMNS, WINDOW WELLS B COUNERFORTS, PATIOS, DECKS, RETAINING WALLS AND THEIR
THISCOMPONENTS ARE NOT PERMITTED TO ENCROACH INTO UTILITY EASEMENTS MAYOR OF THE TOWN OF BENNETM HERERY ACKNOWLEDEESN SAD PLAT UPON WHICH THIS
CERTIICATE IS ENDORSED FOR ALL PURPOSES NDICATED THEREON.


VICINITY MAP
SURVEYOR'S NOTES
ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BAAED UPON ANY
DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED.
2. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY POWER SURVEYNG, INC. FOR
INFORUATEN REGARDING BOUNDARY, EASEMENEAS AND TTILE, POWER SERVEYING, INC. RELIED UPON FIIELLTT NATIONAL TTITE COMPANY COMMITMENT NO. FO699390-122-VOO, WTTH AN EFFECTVE DATE OF JANUARY 7, 2021.
3. FLOOD ZONE DESIGNATIN: THE SUBJECT PROPERTY LLES WITHIN ZONE "X" (AREAS 3. LETERMINED TO BE OUTSIOE THE O.2F ANRAAL CHANEE FLOODPLANE) AS SARHN ON FEMA
FIIR.M. MAP O8001CO718H, WTTH AN EFFECTVE DATE OF MARCH 5, 2007.
4. FIELD SURVEY COMPLETION DATE: MAY 18, 2021
5. UNIT OF MEASUREMENT: U.S. SURVEY FOOT.
6. ALL INTERIOR STREETS WITHIN THIS FINAL PLAT ARE hereby dedicated to the town of

 ELECTRC LINES, GAS LINES, CABLE TELEVISON LINES, FIBER OPTIC LINES, AND TELEPHONE
LINES AS WEL AS PERETUAL RGT FOR IGRESS AND ECRESS FOR INSTALLATION, LINES AS WEL AS PEREETUAL RIGHT FOR INGRES
MANTENANEE, AND REPACEMENT OF SUCH LINES.
8. $\frac{\text { BASIS OF BEARINGS: BEING THE NORTH LINE OF THE NORTHWEST QUARTER (NW } 1 / 4 \text { ) OF }}{\text { SECTION } 34 \text { TOWSHI } 3 \text { SOUTH, RANGE } 63 \text { WEST OF THE SIXTH PRINCIPAL MERDIAN }}$



The subuect property contalns $\pm 65,400$ Square feet or $\pm 1.501$ ACRES of land

## SURVEYOR'S CERTIFICATE

I, RICHARD B. GABREL A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF
COLORADO, DO HEREBY CERTIFY THAT THIS LAND SURVEY PLAT CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVSION ON MAY 18, 2021
THAT THE MONUMENTS SHOWN HEREON ARE OF THE CHARACTER SHON NT


RICHARD B. GABRIEL, P.L.S.
Colorado License No. 37929 colorado License No. 37929
For and orn behalf of
Power Surveying Company,


COUNTY CLERK AND RECORDER'S CERTIFICATE 1. hereby Centiry that till plat was filed in the office of the clerk and recorder
of adams countr, colorado at
O'Clock
reception number
CLERK AND RECORDER

|  | SUubusion Prat |
| :---: | :---: |
| (entemen |  |
|  |  |
| Job No. 21-116 | DWG: $21-116$ |

BENNETT AVENUE TOWNHOMES - FILING NO. 1
A APORTION OF THE NORTHWEST QUARTER (NW1/4) OF SECTIMN 34 ,


April 29, 2021
Mr. David Stockman
Dato Investments, LLC
PO Box 3290
Parker, CO 80134
1889 York Street
Denver, CO 80206
(303) 333-1105

FAX (303) 333-1107
E-mail: Isc@lscdenver.com

Re: 300 Bennett<br>Access Category I<br>Traffic Memorandum<br>Bennett, CO<br>LSC \#210430

Dear Mr. Stockman:
In response to your request, LSC Transportation Consultants, Inc. has prepared this Access Category I Traffic Memorandum for the proposed 300 Bennett residential development. As shown on Figure 1, the site is located south of Bennett Avenue and east of Birch Street in Bennett, Colorado.

## REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; an adjustment of the existing traffic for the ongoing pandemic; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

## LAND USE AND ACCESS

The site is proposed to include 20 townhome dwelling units. Access is proposed to Bennett Avenue in two locations as shown in the conceptual site plan in Figure 2.

## ROADWAY AND TRAFFIC CONDITIONS

## Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- Bennett Avenue is an east-west, two-lane roadway north of the site. The intersection with State Highway 79 is stop-sign controlled.
- SH $\mathbf{7 9}\left(1^{\text {st }}\right.$ Street) is a north-south, two-lane state highway west of the site that is classified as a non-rural highway (NR-B) by CDOT. The CDOT straight line diagram is attached. The intersection with Bennett Avenue is stop-sign controlled. The posted speed limit in the vicinity of the site is transitioning between 35 and 45 mph . The existing SH 79 alignment is expected to be shifted to the east by 2040 per the preferred realignment from the SH 79 and Kiowa-Bennett Corridor PEL Study by CDOT.


## Existing Traffic Conditions

Figure 3a shows the existing November, 2020 lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in November, 2020 for the December, 2020 Worthman Acres TIA by LSC. Figure 3a from the TIA is attached for reference.

## Adjustment for the Ongoing Pandemic

The volumes in Figure 3b are based on attached Figure 3b from the December, 2020 Worthman Acres TIA by LSC.

## 2025 Background Traffic

Figure 4 shows the estimated 2025 background traffic which are based on the 2025 total traffic volumes from attached Figure 8 from the December, 2020 Worthman Acres TIA by LSC.

## TRIP GENERATION

Table 1 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from Trip Generation, $10^{\text {th }}$ Edition, 2017 by the Institute of Transportation Engineers (ITE) for the proposed land use.

The site is projected to generate about 146 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 2 vehicles would enter and about 7 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 7 vehicles would enter and about 4 vehicles would exit.

## TRIP DISTRIBUTION

Figure 5 shows the estimated 2025 directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

## TRIP ASSIGNMENT

Figure 6 shows the estimated 2025 site-generated traffic volumes based on the 2025 directional distribution percentages (from Figure 5) and the trip generation estimate (from Table 2).

## 2025 TOTAL TRAFFIC

Figure 7 shows the 2025 total traffic which is the sum of the 2025 background traffic volumes (from Figure 4) and the 2025 site-generated traffic volumes (from Figure 6). Figure 7 also shows the recommended 2025 lane geometry and traffic control.

## PROJECTED LEVELS OF SERVICE

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in Figure 7 were analyzed to determine the 2025 total levels of service. Table 2 shows the level of service analysis results. The level of service reports are attached.

- Bennett Avenue/West Site Access: All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2025.
- Bennett Avenue/East Site Access: All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2025.


## CONCLUSIONS AND RECOMMENDATIONS

## Trip Generation

1. The site is projected to generate about 146 vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peakhour, about 2 vehicles would enter and about 7 vehicles would exit the site. During the afternoon peak-hour, about 7 vehicles would enter and about 4 vehicles would exit.

## Projected Levels of Service

2. All movements at the intersections analyzed are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2025.

## Conclusions

3. The impact of the 300 Bennett residential development site can be accommodated without constructing turn lanes at the site access intersections.

We trust our findings will assist you in gaining approval of the proposed 300 Bennett residential development. Please contact me if you have any questions or need further assistance.

Sincerely,
LSC TRANSPORTATIONCONSULTANTS, INC.


Christophers. McGranahan, PE, PTOE
Principal
CSM/wc

$$
4-29-21
$$

Enclosures: Tables 1 and 2
Figures 1-7
SH 79 Straight Line Diagram
Traffic Count Reports
Figures 3a, 3b, and 8 from December, 2020 Worthman Acres TIA by LSC Level of Service Definitions
Level of Service Reports
W: \LSC $\backslash$ Projects $\backslash 2021 \backslash 210430-300$-Bennett $\backslash$ Report $\backslash 300$-Bennett-042921.wpd

| Trip Generating Category Quantity | Table 1 <br> ESTIMATED TRAFFIC GENERATION <br> 300 Bennett <br> Bennett, CO <br> LSC \#210430; April, 2021 <br> Trip Generation Rates ${ }^{(1)}$ |  |  |  |  | Total Trips Generated |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Weekday | $\begin{gathered} \text { AM Peak-Hour } \\ \hline \text { In Out } \\ \hline \hline \end{gathered}$ |  | PM Peak-Hour |  | Average Weekday | AM Peak-Hour |  | PM Peak-Hour |  |
|  |  |  |  | In | Out |  | In | Out | In | Out |
| CURRENTLY PROPOSED LAND USE <br> Townhomes ${ }^{(2)} 20$ DU ${ }^{(3)}$ | 7.32 | 0.106 | 0.354 | 0.353 | 0.207 | 146 | 2 | 7 | 7 | 4 |
| Notes: <br> (1) Source: Trip Generation, Institute of Transpo <br> (2) ITE Land Use No. 220 - Multifamily Housing <br> (3) DU = Dwelling Unit | ation Engin ow-Rise) | 10t | Edition, | 2017. |  |  |  |  |  |  |


| Table 2 <br> Intersection Levels of Service Analysis 300 Bennett <br> Bennett, CO <br> LSC \#210430; April, 2021 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} 2025 \\ \text { Total Traffic } \end{gathered}$ |  |
| Intersection Location | Traffic Control | Level of Service AM | Level of Service PM |
| Bennett Avenue/West Site Access | TWSC |  |  |
| NB Approach |  | A | A |
| WB Left/Through |  | A | A |
| Critical Movement Delay |  | 9.3 | 9.5 |
| Bennett Avenue/East Site Access | TWSC |  |  |
| NB Approach |  | A | A |
| WB Left/Through |  | A | A |
| Critical Movement Delay |  | 9.0 | 9.4 |





Note: These volumes are based on Figure 3a of the December, 2020 Note: These vorum Than Acres TIA by LS.

LEGEND:

- = Stop Sign
$\theta=$ Traffic Signa
40 = Speed Limit
${ }^{5}$
$\frac{26}{35}=\frac{\text { AM Peak Hour Traffic }}{\text { PM Peak }}$ $\overline{35}=\frac{\text { PM Peak Hour Traffic }}{}$
ovember 2020 Existing Traffic, Lane Geometry and Traffic Control


Note: These volumes are base







It may appear that information is missing from the straight line diagram. If so, reduce the number of miles/page and re-submit the request.

## COUNTER MEASURES INC.

```
1889 YORK STREET
DENVER.COLORADO 303-333-7409
```

File Name : 1STBENN
Site Code : 00000022
Start Date : 11/18/2020 Page No : 1
Groups Printed- VEHICLES

|  | 1ST STREET <br> Southbound |  |  |  | BENNETT AVENUE Westbound |  |  |  | 1ST STREET <br> Northbound |  |  |  | Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. Total |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 1 | 39 | 0 | 0 | 10 | 0 | 1 | 0 | 0 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 72 |
| 06:45 AM | 1 | 44 | 0 | 0 | 9 | 0 | 3 | 0 | 0 | 32 | 7 | 0 | 0 | 0 | 0 | 0 | 96 |
| Total | 2 | 83 | 0 | 0 | 19 | 0 | 4 | 0 | 0 | 50 | 10 | 0 | 0 | 0 | 0 | 0 | 168 |


| 07:00 AM | 1 | 37 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 35 | 5 | 1 | 0 | 0 | 0 | 0 | 89 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 AM | 2 | 53 | 0 | 2 | 13 | 0 | 4 | 0 | 0 | 32 | 5 | 0 | 0 | 0 | 0 | 0 | 111 |
| 07:30 AM | 3 | 58 | 0 | 0 | 11 | 0 | 2 | 0 | 0 | 28 | 5 | 0 | 0 | 0 | 0 | 1 | 108 |
| 07:45 AM | 2 | 53 | 0 | 1 | 14 | 0 | 1 | 0 | 0 | 38 | 10 | 0 | 0 | 0 | 0 | 0 | 119 |
| Total | 8 | 201 | 0 | 3 | 47 | 0 | 8 | 0 | 0 | 133 | 25 | 1 | 0 | 0 | 0 | 1 | 427 |
| 08:00 AM | 4 | 44 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 23 | 5 | 0 | 0 | 0 | 0 | 0 | 84 |
| 08:15 AM | 3 | 43 | 0 | 1 | 12 | 0 | 3 | 0 | 0 | 25 | 5 | 0 | 0 | 0 | 0 | 0 | 92 |
| Total | 7 | 87 | 0 | 1 | 19 | 0 | 4 | 0 | 0 | 48 | 10 | 0 | 0 | 0 | 0 | 0 | 176 |


| 04:00 PM | 8 | 47 | 0 | 0 | 20 | 0 | 4 | 0 | 0 | 52 | 19 | 0 | 0 | 0 | 0 | 0 | 150 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:15 PM | 4 | 55 | 0 | 1 | 14 | 0 | 6 | 0 | 0 | 53 | 18 | 0 | 0 | 0 | 0 | 0 | 151 |
| 04:30 PM | 5 | 50 | 0 | 0 | 14 | 0 | 8 | 0 | 0 | 64 | 10 | 0 | 0 | 0 | 0 | 0 | 151 |
| 04:45 PM | 4 | 70 | 0 | 5 | 13 | 0 | 6 | 0 | 0 | 65 | 22 | 0 | 0 | 0 | 0 | 0 | 185 |
| Total | 21 | 222 | 0 | 6 | 61 | 0 | 24 | 0 | 0 | 234 | 69 | 0 | 0 | 0 | 0 | 0 | 637 |


| 05:00 PM | 12 | 58 | 0 | 1 | 8 | 1 | 9 | 0 | 0 | 54 | 16 | 0 | 0 | 0 | 0 | 0 | 159 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05:15 PM | 12 | 61 | 0 | 0 | 5 | 0 | 9 | 0 | 0 | 64 | 13 | 0 | 0 | 0 | 0 | 0 | 164 |
| 05:30 PM | 4 | 51 | 0 | 3 | 7 | 1 | 5 | 0 | 0 | 70 | 15 | 0 | 0 | 0 | 0 | 0 | 156 |
| 05:45 PM | 9 | 40 | 0 | 1 | 8 | 0 | 7 | 0 | 0 | 67 | 19 | 0 | 0 | 0 | 0 | 0 | 151 |
| Total | 37 | 210 | 0 | 5 | 28 | 2 | 30 | 0 | 0 | 255 | 63 | 0 | 0 | 0 | 0 | 0 | 630 |


| Grand Total | 75 | 803 | 0 | 15 | 174 | 2 | 70 | 0 | 0 | 720 | 177 | 1 | 0 | 0 | 0 | 1 | 2038 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 8.4 | 89.9 | 0.0 | 1.7 | 70.7 | 0.8 | 28.5 | 0.0 | 0.0 | 80.2 | 19.7 | 0.1 | 0.0 | 0.0 | 0.0 | 100.0 |  |
| Total \% | 3.7 | 39.4 | 0.0 | 0.7 | 8.5 | 0.1 | 3.4 | 0.0 | 0.0 | 35.3 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |

## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: 1ST STREET
DENVER.COLORADO
File Name : 1STBENN
E/W STREET: BENNETT AVENUE 303-333-7409

Site Code : 00000022
Start Date: 11/18/2020
Page No : 2

|  | 1ST STREET <br> Southbound |  |  |  |  | BENNETT AVENUE <br> Westbound |  |  |  |  | 1ST STREET <br> Northbound |  |  |  |  | Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start <br> Time | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{array}{r} \text { Rig } \\ \mathrm{ht} \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \hline \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r\|} \hline \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Int. Total |




## COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
File Name : 1STBENN
N/S STREET: 1ST STREET 303-333-7409

Site Code : 00000022
Start Date: 11/18/2020
Page No : 2

|  | 1ST STREET <br> Southbound |  |  |  |  | BENNETT AVENUE <br> Westbound |  |  |  |  | 1ST STREET <br> Northbound |  |  |  |  | Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start <br> Time | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{array}{r} \text { Rig } \\ \mathrm{ht} \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \hline \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r\|} \hline \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \end{array}$ | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Int. Total |

Peak Hour From 04:30 PM to 05:15 PM - Peak 1 of 1



Page 1
Location: BENNETT AVE W/O ASH STREET City: BENNETT
County: ADAMS
Direction: EASTBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER,COLORADO 80206
Site Code: 201703
Station ID: 201703


Page 1
Location: BENNETT AVENUE E/O ASH STREET
City: BENNETT
County: ADAMS
Direction: EAST/WEST

COUNTER MEASURES INC.
1889 YORK STREET
DENVER,COLORADO 80206
Site Code: 201716
Station ID: 201716

| Start | 18-Nov-20 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | Wed | EASTBOUN | WESTBOUN |  |  |  |  |  |  | Total |
| 12:00 AM |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 01:00 |  | 1 | 1 |  |  |  |  |  |  | 2 |
| 02:00 |  | 1 | 0 |  |  |  |  |  |  | 1 |
| 03:00 |  | 1 | 1 |  |  |  |  |  |  | 2 |
| 04:00 |  | 2 | 2 |  |  |  |  |  |  | 4 |
| 05:00 |  | 5 | 10 |  |  |  |  |  |  | 15 |
| 06:00 |  | 9 | 4 |  |  |  |  |  |  | 13 |
| 07:00 |  | 12 | 11 |  |  |  |  |  |  | 23 |
| 08:00 |  | 7 | 8 |  |  |  |  |  |  | 15 |
| 09:00 |  | 23 | 5 |  |  |  |  |  |  | 28 |
| 10:00 |  | 17 | 3 |  |  |  |  |  |  | 20 |
| 11:00 |  | 17 | 6 |  |  |  |  |  |  | 23 |
| 12:00 PM |  | 23 | 2 |  |  |  |  |  |  | 25 |
| 01:00 |  | 25 | 7 |  |  |  |  |  |  | 32 |
| 02:00 |  | 18 | 8 |  |  |  |  |  |  | 26 |
| 03:00 |  | 24 | 6 |  |  |  |  |  |  | 30 |
| 04:00 |  | 26 | 17 |  |  |  |  |  |  | 43 |
| 05:00 |  | 28 | 7 |  |  |  |  |  |  | 35 |
| 06:00 |  | 19 | 5 |  |  |  |  |  |  | 24 |
| 07:00 |  | 18 | 4 |  |  |  |  |  |  | 22 |
| 08:00 |  | 18 | 5 |  |  |  |  |  |  | 23 |
| 09:00 |  | 5 | 3 |  |  |  |  |  |  | 8 |
| 10:00 |  | 5 | 2 |  |  |  |  |  |  | 7 |
| 11:00 |  | 4 | 1 |  |  |  |  |  |  | 5 |
| Total |  | 308 | 118 |  |  |  |  |  |  | 426 |
| Percent |  | 72.3\% | 27.7\% |  |  |  |  |  |  |  |
| AM Peak | - | 09:00 | 07:00 | - | - | - | - | - | - | 09:00 |
| Vol. | - | 23 | 11 | - | - | - | - | - | - | 28 |
| PM Peak | - | 17:00 | 16:00 | - | - | - | - | - | - | 16:00 |
| Vol. | - | 28 | 17 | - | - | - | - | - | - | 43 |
| Grand Total |  | 308 | 118 |  |  |  |  |  |  | 426 |
| Percent |  | 72.3\% | 27.7\% |  |  |  |  |  |  |  |
| ADT |  | ADT 426 |  |  |  |  |  |  |  |  |

Page 1
Location: KIOWA ST W/O ADAMS ST City: BENNETT
County: ADAMS
Direction: EAST/WEST

COUNTER MEASURES INC.
1889 YORK STREET
DENVER,COLORADO 80206
Site Code: 20170 Station ID: 20170

| Start <br> Time | 18-Nov-20 <br> Wed | EASTBOUN | WESTBOUN |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12:00 AM |  | 1 | 1 |  |  |  |  |  |  | 2 |
| 01:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 02:00 |  | 0 | 1 |  |  |  |  |  |  | 1 |
| 03:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 04:00 |  | 0 | 1 |  |  |  |  |  |  | 1 |
| 05:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 06:00 |  | 1 | 2 |  |  |  |  |  |  | 3 |
| 07:00 |  | 4 | 8 |  |  |  |  |  |  | 12 |
| 08:00 |  | 5 | 8 |  |  |  |  |  |  | 13 |
| 09:00 |  | 6 | 5 |  |  |  |  |  |  | 11 |
| 10:00 |  | 7 | 4 |  |  |  |  |  |  | 11 |
| 11:00 |  | 6 | 4 |  |  |  |  |  |  | 10 |
| 12:00 PM |  | 7 | 11 |  |  |  |  |  |  | 18 |
| 01:00 |  | 14 | 9 |  |  |  |  |  |  | 23 |
| 02:00 |  | 14 | 11 |  |  |  |  |  |  | 25 |
| 03:00 |  | 12 | 8 |  |  |  |  |  |  | 20 |
| 04:00 |  | 12 | 10 |  |  |  |  |  |  | 22 |
| 05:00 |  | 11 | 7 |  |  |  |  |  |  | 18 |
| 06:00 |  | 9 | 3 |  |  |  |  |  |  | 12 |
| 07:00 |  | 0 | 0 |  |  |  |  |  |  | 0 |
| 08:00 |  | 4 | 3 |  |  |  |  |  |  | 7 |
| 09:00 |  | 1 | 0 |  |  |  |  |  |  | 1 |
| 10:00 |  | 1 | 0 |  |  |  |  |  |  | 1 |
| 11:00 |  | 2 | 1 |  |  |  |  |  |  | 3 |
| Total |  | 117 | 97 |  |  |  |  |  |  | 214 |
| Percent |  | 54.7\% | 45.3\% |  |  |  |  |  |  |  |
| AM Peak | - | 10:00 | 07:00 | - | - | - | - | - | - | 08:00 |
| Vol. | - | 7 | 8 | - | - | - | - | - | - | 13 |
| PM Peak | - | 13:00 | 12:00 | - | - | - | - | - | - | 14:00 |
| Vol. | - | 14 | 11 | - | - | - | - | - | - | 25 |
| Grand Total |  | 117 | 97 |  |  |  |  |  |  | 214 |
| Percent |  | 54.7\% | 45.3\% |  |  |  |  |  |  |  |
| ADT |  | ADT 214 |  | AADT 214 |  |  |  |  |  |  |





## LEVEL OF SERVICE DEFINITIONS

From Highway Capacity Manual, Transportation Research Board, 2016, 6th Edition
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)
Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

| LOS | Average Vehicle Control Delay | Operational Characteristics |
| :---: | :---: | :---: |
| A | <10 seconds | Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn. |
| B | 10 to 15 seconds | Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn. |
| C | 15 to 25 seconds | Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane. |
| D | 25 to 35 seconds | This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points. |
| E | 35 to 50 seconds | The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach. |
| F | >50 seconds | The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns. |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\mathbf{T}$ | Mr |  |
| Traffic Vol, veh/h | 45 | 2 | 0 | 87 | 4 | 0 |
| Future Vol, veh/h | 45 | 2 | 0 | 87 | 4 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 2 | 0 | 99 | 5 | 0 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | F |  |  | -1 | Yr |  |
| Traffic Vol, veh/h | 40 | 0 | 0 | 75 | 2 | 1 |
| Future Vol, veh/h | 40 | 0 | 0 | 75 | 2 | 1 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 45 | 0 | 0 | 85 | 2 | 1 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | F |  |  | $-\uparrow$ | Mr |  |
| Traffic Vol, veh/h | 97 | 4 | 0 | 71 | 3 | 0 |
| Future Vol, veh/h | 97 | 4 | 0 | 71 | 3 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 110 | 5 | 0 | 81 | 3 | 0 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | -1 | M |  |
| Traffic Vol, veh/h | 85 | 2 | 1 | 65 | 1 | 0 |
| Future Vol, veh/h | 85 | 2 | 1 | 65 | 1 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 97 | 2 | 1 | 74 | 1 | 0 |



## BENNETT PLANNING AND ZONING COMMISSION

RESOLUTION NO. 2022-02

## A RESOLUTION RECOMMENDING APPROVAL OF A FINAL PLAT FOR BENNETT TOWNHOME SUBDIVISION

WHEREAS, there has been submitted to the Planning and Zoning Commission of the Town of Bennett a request for approval of a Final Plat for the Bennett Townhome Subdivision; and

WHEREAS, all materials related to the proposed Final Plat have been reviewed by Town Staff and found with conditions to be in compliance with Town of Bennett subdivision and zoning ordinances; and

WHEREAS, after a noticed public hearing, at which evidence and testimony were entered into the record, the Planning and Zoning Commission finds that the proposed Final Plat should be approved subject to certain conditions.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF BENNETT, COLORADO:

Section 1. The Planning and Zoning Commission hereby recommends approval of the proposed Final Plat for the Bennett Townhome Subdivision, subject to the conditions set forth on Exhibit A, attached hereto and incorporated herein by reference.

PASSED AND ADOPTED THIS 24th DAY OF JANUARY 2022.

## Chairperson

## ATTEST:

[^2]
## EXHIBIT A

## Bennett Townhome Subdivision Final Plat Conditions of Approval

Before recording the final plat, the applicant shall:

1. update plat notes related to easements and maintenance in a manner directed by the Town Engineer.
2. make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## Suggested Motion

I move to approve Resolution No. 2022-02 - A resolution recommending approval of the final plat for the Bennett Townhome Subdivision with the following conditions of approval:

1. update plat notes related to easements and maintenance in a manner directed by the Town Engineer.
2. make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## QUASI-JUDICIAL PUBLIC HEARING SCRIPT (PLANNING COMMISSION)

CHAIR: I will now open the public hearing on the following application: An application for Case No. 21.26 Bennett Ranch Filing 2 Final Plat.

The purpose of the hearing is to provide a public forum for all interested parties who wish to comment on an application before the Commission. If you wish to speak please write your name and address in the chat box and you will be called on.

The Procedure for the public hearing will be as follows:
FIRST, there will be a presentation by the Town staff.
NEXT, we will have a presentation by the applicant.
After these two presentations we will allow people who signed up to speak for up to 3 minutes each. Please DO NOT REPEAT points made by others. It is fine to say, "I agree with the previous speaker's comments". Please direct your comments to the Commission, not the applicant or Town staff.

After receiving public comments, we will allow the applicant an opportunity to respond.
NEXT, the Planning Commission members may ask questions of anyone who testified.
I will then close the public hearing and no further testimony or other evidence will be received. The Planning Commission will discuss the matter and may take some kind of action.

Public hearings are recorded for the public record. All testimony must be presented, after you give your full name and address.

CHAIR: Do we have proper notification?

## [Town Clerk to confirm on record notice has been provided]

Do any Commission members have any disclosures?
[Commissioners to disclose conflicts of interests, ex parte contacts, etc]
Town staff, please introduce the applicant and provide your staff report.
[Staff presentation]
Will the applicant or the applicant's representative present the application?
[Applicant presentation]
Do any of the Commissioners have questions of the applicant or Town staff?

## [Question and Answer]

CHAIR: I will now open the public comment portion of the public hearing. For those wishing to speak, please clearly state your name and address for the record.

Has anyone signed up to speak at this public hearing?

## [lf more than one person has signed in, call them in order.]

Is there any interested party in the audience that has not signed up but who wishes to speak regarding the application?

## [Additional public comment]

If there is no more public comment, I will now close the public comment portion of the public hearing.
CHAIR: Does the applicant wish to respond to any of the comments?

## [Opportunity for applicant to provide any rebuttal evidence]

CHAIR: Before we turn to Commissioner questions and deliberation, I want to state that the documents included within the record for this public hearing include all application materials submitted by the applicant; all materials included in the Planning Commission packets; any PowerPoint or other presentations given tonight; all written referral and public comments received regarding the application; the public comment sign-up sheet; the public posting log and photographs of the notice, and the Town's subdivision and zoning ordinances and other applicable regulations. Does anyone have any objection to inclusion of these items in the record?

CHAIR: I will now close the public hearing and the Planning Commission members will deliberate on the evidence presented. During deliberations, Commission members may ask questions of Town staff, but no further public comment or other testimony or evidence will be received.

Who would like to begin?
Who is next?
Any other questions or comments
[If anyone believes the applicable criteria have not been met, then please explain why so we have those reasons for the record.]

CHAIR: We have a draft Resolution in front of us and I would entertain a motion.
We have a motion on the floor by Commissioner $\qquad$ and a second by Commissioner $\qquad$ to approve Planning and Zoning Commission Resolution No. 2022-03.

May we have a Roll-Call vote?
Motion carries/fails.
welcome neighbors.

TO: Members of the Planning and Zoning Commission
FROM: Steve Hebert, Planning and Economic Development Manager
DATE: January 24, 2022
SUBJECT: Case No. 21.26 - Bennett Ranch Filing 2 Final Plat
Applicant/Representative(s): LGI Homes, Kacy Flemons; Owner's Representatives - Trey Farrell, Kimley-Horn
Location: Approximately 600 feet west of the East 38th Avenue/Colorado Highway 79 (Kiowa-Bennett Road) intersection

Purpose: Final Plat for 84 Townhome Lots

## Background

Case No. 21.26 is a proposed final plat for 84 townhome lots on 8.918 acres in Bennett Ranch. The property was originally platted as Tract B of Bennett Ranch Filing 1. It is located on the south side of East $38^{\text {th }}$ Avenue approximately 600 feet west of the East 38th Avenue/Colorado Highway 79 (Kiowa-Bennett Road) intersection. The property is zoned R-3 - High Density Residential.

The Planning and Zoning Commission reviewed a sketch plan for the project on June 21, 2021.


## Site Photo

Looking Southwest at Bennett Ranch Filing 1 and Filing 2 Overlot Grading


Proposed Lot Layout

The map below shows the proposed lot layout and street configuration.


Access to the townhomes will be via a public street (Pintabian Drive, in dark grey), and a series of private driveways and alleys (light grey). In addition, several tracts are set aside as open space tracts (green) that will eventually accommodate landscaping and pedestrian connections. See the final plat document in the packet for more details on lot, right-of-way and easement locations and dimensions.

## Zoning and Land Use Regulations

The map and table below show the zoning of the surrounding area, including a mix of R-2 and P - Public zone districts.


| Direction | Zone District | Current Land Use |
| :--- | :--- | :--- |
| North | A-3 in Adams County | Agricultural |
| East | P - Public, R-2 - Mid Density Residential | Vacant (future fire station) |
| South | R-2 - Mid Density Residential | Residential under construction |
| West | R-2 - Mid Density Residential | Residential under construction |

The table below summarizes the minimum and maximum standards in the R-3 zone district and how the proposed subdivision plat compares. Most of the standards will be enforced at the time of site plan and building permit.

| Standard | R-3 Zone District | Proposed |
| :--- | ---: | ---: |
| Min. Lot Area/Dwelling Unit | $2,400 \mathrm{sq} . \mathrm{ft}$. | $2,400 \mathrm{sq} . \mathrm{ft}$. |
| Min. Lot Width | 25 feet for townhomes | 25 ft |
| Max. Lot Coverage | $75 \%$ | TBD |
| Minimum Floor Area/Dwelling Unit | 600 sq. ft. | TBD |
| Minimum Front Yard Setback <br> (Principal Structure) | 25 feet | TBD |
| Min. Side Yard Setback (Principal <br> Structure) | 5 feet for townhomes | TBD |
| Min. Rear Yard Setback (Principal <br> Structure) | 20 feet | TBD |
| Maximum Height (Principal <br> Structure) | 40 feet | TBD |

## Water

Water service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Sanitary Sewer

Sanitary sewer service will be provided by the Town of Bennett. See the Town Engineer's memorandum.

## Stormwater Management

Stormwater will be accommodated by the Bennett Ranch regional stormwater system. See the Town Engineer's memorandum.

## Access and Traffic

Access is from a newly constructed Pintabian Drive, which connect to the future Bennett Ranch Boulevard and Appaloosa Avenue, and then to E. $38^{\text {th }}$ Avenue.

## Fire and Rescue

Bennett-Watkins Fire Rescue will provide service. The applicant should meet directly with BWFR directly to review specific site and building plans to assure conformance with International Fire Code standards. A future fire station is planned for the property immediately east of this project. See the fire districts response.

## Gas, Electricity and Telecommunications

Natural gas will be provided by Colorado Natural Gas, electricity by CORE Electric Cooperative and telecommunications by Eastern Slope Technologies (ESRTA) or Comcast.

## Public Land Dedication Requirements

## Park Land and Public Facilities

The Municipal Code requires ten percent (10\%) of the total land area contained within the subdivision to be dedicated to the Town for park land and other public facilities. Most of the ten percent requirement has been satisfied by previous public land dedications for parks, the fire station site and a new town well and water storage tank site. Staff will evaluate the proposed open space tracts for additional credit at the time of site plan review.

## Bennett School District 29J

The Bennett School District 29J has requested cash-in-lieu of land dedication, which will be payable pursuant to the Town of Bennett/School District IGA and the municipal code in effect at the time of building permit issuance or subdivision agreement.

## Staff Analysis and Findings

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:
A. The final plat incorporates recommended changes, modifications and conditions attached to the sketch plan unless otherwise approved by the Planning Commission.

Staff Finding: The Final Plat is consistent with the previous sketch plan reviewed by the Planning and Zoning Commission in June 2021.
B. All applicable technical standards in accordance with this Chapter and adopted Town documents have been met.

1. To establish appropriate standards for subdivision design that will:
a. Encourage the development of sound, economical and stable neighborhoods and healthy living environments, in conformance with the goals and policies of the Comprehensive Plan.
b. Provide lots of adequate size, configuration and design for the purpose for which they are intended to be used.
c. Promote superior design and design flexibility.
d. Preserve the significant natural features and environmental quality of the Town.
e. Guide the physical development of the Town in ways that complement the Town's character and culture.
f. Promote a cohesive sense of community among new and current residents, precluding neighborhood design or restrictions that in any way isolate any neighborhood from the rest of the community.
g. Provide complete and accurate public land records.

Staff Finding: The proposed final plat will accommodate new development that meets the standards of good subdivision design.
2. To establish standards for utilities and other public services that will:
a. Provide an efficient, adequate and economical supply of utilities and services to land proposed for development without adverse effects to property that is currently served.
b. Ensure that adequate stormwater drainage, sewage disposal, water supply and other utilities, services and improvements needed as a consequence of the subdivision of the land are provided.
c. Provide for the reasonable extension of utilities and services to other lands that may be developed in the future.
d. Provide the equitable distribution of the cost of new and expanded public services needed to support new land development.

Staff Finding: The proposed final plat, future subdivision agreement and construction documents will accommodate extension of utilities and public services to serve new residential neighborhood.
3. To ensure the provision of adequate and safe traffic circulation that will:
a. Minimize traffic hazards through appropriate street design, providing safe and convenient vehicular and pedestrian traffic circulation systems.
b. Provide adequate vehicular access to abutting properties.
c. Provide streets of adequate capacity and appropriate design and function.

Staff Finding:The proposed public street and the private driveways and alleys will accommodate circulation for residents, visitors and emergency vehicles.
4. To ensure adequate public facilities that will:
a. Provide for the recreational, cultural, educational and other public facility needs of the community.
b. Facilitate effective law enforcement and fire protection.

Staff Finding: To the extent previous school land dedication does not satisfy the requirement for this plat, the applicant will be required to pay cash-in-lieu school land dedication, as well as the standard Town impact fees for public facilities. The proposed final plat provides a series of internal and external sidewalks that accommodate pedestrian connections to the neighborhood and the surrounding community.
5. To contribute to the proper development of the community in accordance with the goals and policies of the Comprehensive Plan as it may be updated from time to time.

Staff Finding: The proposed plat is consistent with the principles in the 2021 Town of Bennett Comprehensive Plan related to:

- Mixed land uses
- Access to healthy living
- Access to open space, trails and parks
- Contiguous development
- A variety of transportation choices
C. Compliance with Zoning Regulations

Staff Finding: All lots meet the standards in R-3 - High Density Residential District, as noted above.

## Referral Agency Review and Comments

The proposed Bennett Ranch Filing 2 Final Plat was sent to several referral agencies for comment, including:

1. Town Planning
2. Town Engineer
3. Town Traffic Engineer
4. Town Attorney
5. Bennett-Watkins Fire Rescue (BWFR)
6. CORE Electric Cooperative (IREA)
7. Colorado Natural Gas (CNG)
8. Bennett School District 29J

Each of the agencies had comments or recommendations that are either reflected on the final plat document or will be addressed at later stages of the review process, e.g. site plan or building permit. General cleanup of the document to include all agency comments will be completed before recording.

## Public Comment

Notice of the January 24, 2022 Planning and Zoning Commission hearing and the February 22, 2022 Board of Trustees hearing was published in the Eastern Colorado News, posted on the subject property and sent to all property owners within 300 feet of the property. No comments, other than those from the referral agencies, have been received to date.

## Staff Recommendation

Staff finds the proposed final plat is in compliance with the Subdivision Regulations in Chapter 16, Article IV of the Bennett Municipal Code. Staff also finds the plat has been processed according to Section 16-4-360 and meets the approval criteria in 16-4-380. Based upon these findings, staff recommends the Planning and Zoning Commission recommend to the Board of Trustees approval of Case No. 21.26 - Bennett Ranch Filing No. 2, with the following conditions:

Before recording the final plat, the applicant shall:

1. Update plat notes related to easements and maintenance in a manner directed by the Town Engineer.
2. Make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## Attachments

1. Staff PowerPoint Presentation (PDF)
2. Land Use Application
3. Letter of Intent/Narrative
4. Bennett Ranch Filing 2 Final Plat
5. Combined Staff and Referral Agency Comments
6. Traffic Study
7. Proposed Resolution No. 2022-03

# Bennett Ranch Filing 2 Final Plat 

Planning and Zoning Commission

January 24, 2022
Steve Hebert, Planning \& Economic Development Manager

## Proposed Final Plat

- 8.9 Acres
- Zoned R-3 - High Density Residential
- Subdivide to create 84 lots for attached townhomes
- 2,400 sq. ft. minimum lot size
- Internal public street and private alleys





## Availability of Public Infrastructure

- Access - E. $38^{\text {th }}$ Avenue to Bennett Ranch Blvd. or Appaloosa Ave.
- Water and Sewer - Town of Bennett
- Stormwater - Regional Bennett Ranch Stormwater System
- Fire Protection - Bennett-Watkins Fire Rescue
- Law Enforcement - Adams County Sheriff
- Electricity - IREA
- Natural Gas - Colorado Natural Gas
- Telecom - Eastern Slope Technologies
- Bennett School District - Cash-in-lieu


## Staff Findings on Case No. 21.26

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:

- Generally consistent with the Sketch Plan, with updates and improvements.
- All applicable technical standards in accordance with the Subdivision Regulations and adopted Town documents will be met.
- The proposed lot configuration will accommodate new development that meets the standards of good subdivision design.
- The final plat document will accommodate extension of utilities and public services to serve future development.
- Public facilities include pedestrian connections to the Bennett Ranch community.
- All lots meet the standards of R-3 High Density Residential zone district.


## Staff Recommendation

Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-03 recommending approval of the Bennett Ranch Filing 2 Final Plat, with the following conditions:

Before recording the final plat, the applicant shall:

1. Update plat notes related to easements and maintenance in a manner directed by the Town Engineer
2. Make other minor modifications as directed by Town Staff, Town Engineer and Town Attorney.

(See Draft Resolution)



All Submittal Requirements must accompany this application. All applicable fees must be paid at the time of application. Any extraordinary cost incurred by the Town of Bennett in reviewing and processing this application is the responsibility of the applicant.

An executed cost agreement must be attached to this application pursuant to Sec. 16-1-325 of the Bennett Municipal Code.

I understand this is an application only, it must be approved by the Town, and any required building permits must be obtained before the property can be used in accordance with the request. I hereby acknowledge all of the above information is correct.

Applicant's Signature: $\qquad$

# Kimley»>Horn 

Bennett Ranch<br>Bennett, Colorado | Northern Townhomes Final Plat Application July 2021

## Letter of Intent

The subject property is located along the south western corner of State Highway 79 (Kiowa-Bennett Road) and $38^{\text {th }}$ Avenue. Situated east of Bennett High School and Bennett Middle School, this proposed neighborhood will provide housing options within walking distance to the schools and nearby amenities within the Town of Bennett.

It is intended that the Bennett Ranch Subdivision be a well-connected neighborhood of single-family detached and attached residences with a series of trail connections which tie into a centralized Community Park. The Northern Townhomes site is approximately 8.9 acres and is planned for a total of 84 single-family attached homes ( $9.43 \mathrm{du} / \mathrm{ac}$ ). The single-family detached homes have a typical lot size of approx. 25 -feet wide by 96 -feet in depth with variations throughout the site. The site is planned in accordance to the R-3 (High-Density Residential) Zone District. The proposed neighborhood will focus on providing quality common areas, landscape buffers, and trail corridors. Landscaping will be incorporated along all perimeter streets as well as enhanced entryways to accentuate the "front door" of the neighborhood.

Primary vehicular access to the neighborhood will be from E. $38^{\text {th }}$ Avenue. An Internal local street with attached alleys will provide access to residences.

Community design elements include a centralized Community Park with off-street parking, connecting open space/trail corridors, vehicular and pedestrian scaled lighting, and street furniture to contribute to providing a high-quality neighborhood experience. The Community Park will provide programming elements and pedestrian scaled amenities to increase activity within the Park.

Pedestrian and bicycle access will be provided along the internal street connections to help link neighborhood amenities to other developed areas within the Town. Trail linkages will also be provided within the Park and throughout the site to enhance walkability to Bennett High School and Bennett Middle School.

The intent of the architecture within Bennett Ranch is to provide a variety of quality housing options, colors, and architectural designs to complement the surrounding neighborhoods while avoiding monotony throughout the neighborhood. The homes shall relate to the street and open spaces while maintaining a sense of seclusion.

## FINAL PLAT

## BENNETT RANCH FILING NO. 2

A RESUBDIVISION OF TRACT B, BENNETT RANCH FILING NO. 1 LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE $6 T H$ PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO

ownership and dedication
KNOW ALL MEN BY THESE RRESENTS THAT THE UNDERSIGNED, LGI HOMES INC. BENG THE OWNER OF THE LAND
SHOWN IN THIS FINL PLAT AND DESCRBED AS FOLOWS:



 THE TOWN OF BENNET AND ALL SERVNG PUBLCL UTLITIES (AND OTHER APPROPRATE ENTTIESS
OF SAID REAL PROPERTY WHICH ARE SO DESIGNATED AS EASEMENTS ANO TRACTS AS SHOWN.





ownership CERTIFICATE
FOR: LGI HOMES INC.
BY: TRACYE HERRNGTON, AUTHORIZED SIINATOR
notart acknowleogement
State of colooado ,
countr of
the foregong certicate of deoication and onnership was acknowleoged before me
${ }^{\text {THIS }}{ }^{\text {DTSSS }}{ }^{\text {DAY OF }}$
NOTARY PUBLIC
Mr COMMISSION EXPIRES $\square$
ADDRESS OF NOTABY.

## OTES

 GRESS FROM AND TO SAID TRACTST. THE TOWN SHALL HAVE THE RIGHT, BUT NOT THE OBLCATION, TO

the policy of the town requires that mantenance access shall be provide to all storm

 TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERA.
COSTS WIL BE ASSESSED TO THE PROPERTY ONNER(S).

ALL INTERNAL ROAD AND DRAANAGE FACLITH CONSTTUCTION SHALL BE IN ACCOROANCE WTH STREET





| THERE ARE NO SIGNFICANT NATURAL DRANAGE COURSES, GEOLOGIC HAZARD AREAS, OR OTHER NATURAL |
| :--- |
| FEATURES WIHIN |




10. NoN-EXCLUSIVE TRANSPORTATION EASEMENTS LOCATED AS SHOWN ARE HEREBY GRANTED FOR THE
INSTALLATON, MANIENANCE, AND OPERATION OF SIDWALKS RUNNING PARALLEL WITH STREET RICHTS-OF-WAR. 1. THIS PLAT CONTANS 84 MULIT-FAMLY LOTS AND VARIIOUS TRACTS, AS SHOWN IN THE TRACT SUMMARY ON

13. FOR SUBDVISION BOUNDARY MONUMENTATON, MINMUM STANDAROS FOR MONUMENTS MUST CONFORM TO THE
COLORADO REVSEO STATUTES 2017, MONUMENATION OF SUBONSIONS, CRTS $38-51-105$.
14. If A SUBONSION BOUNDARY OORNER FALLS WTHIN DEDCGTENSTRET RIGHT-OF-WAY, THE MONUMENT SHAL SHALL BE SET FLUSH WTH THE SURFACE OF THE PAVEMEN.
15. NO CERTHCATE OF OCCUPACIES WIL BE ISSUED FOR ANY LOT UNTL ALL PUBLC MPROVEMENTS N

7. NoN-EXCLUSNE 5 FOOT, 10-FOOO AND 15-FOOO UTITT EASEMENTS LOCATED AS SHOWN ARE HEREBY

8. ALL ITERIOR STREETS SHOWN ON THIS FINAL PLAT ARE HEREBY DEDICATED To THE TOWN O SURVEYOR'S NOTES


 EASEMENTS, AND ENCUMBRANCES. THI SURVEY DOES NOT REPRESENT ATTLE SEARCH TO DETERMNC
OWNERSHP, EASEMENTS OR OTHRR MATERS OF PUBLC RECORD BY DALEY LAND SURVEYMG, INC.

SURVEYOR'S NOTES

bearngs are are based on the north line of the northeast quarter of section 27,


 SECTION 27 AND THE CALCULATED POSTITON FROM THE FOUND $31 / 4$ " ALUMNUM CAP
PLS 14108 ON A \#G REBAR AT THE NORTH OUARER CORNER OF SAID SECTON 27 .
5. the filld surver was completed on june 10, 2021
6. DISTANCES shown herein are in u.s. survey feet.

TOWN APPROVAL BLOCK
this is to certify that the plat of final plat bennett ranch fllng no. 2 was approved on the
 THAI THE MAYOR OF THE TOWN OF BENNETT ON BEHALF OF THE TOWN OF BENNET, HEREEY ACM
SAID PLAT UPON WHICH THIS CERTIFLCAIE IS ENDORSED FOR ALL PUROOSES INOICATED THEREON
$\overline{\text { MAYOR }} \quad$ ATEST: $\frac{\text { TOWN CLERK }}{}$
SURVEY CERTIFICATION



DISTRICT ACCEPTANCE


BENNET RANCH MEEROPOLITAN DISTRCT, A QUASI-MUNCIIPAL CORPORATION AND POLITCAL SUBOIVIION OF THE
STAIE OF COLORADO.
${ }_{\text {BENE }}^{\text {BYI }}$ ITT RANCH LLC

the foregoing was acknowledged before me by this ___ day of or POLTICAL SUBDVYSION OF THE SEATE OF RANCH MER
witness my hand and official seal $\qquad$
MY COMMISSION EXPIRES
$\overline{\text { NOTARY PUBLIC }}$
CLERK AND RECORDER'S CERTIFICATE
1 hereby cerrify that this plat flled in the office of the clerk and recorder of adams countr,
Cococoado at
RECEPTION NUMBER
$\overline{\text { CLERK AND RECORDER }}$

FINAL PLAT BENNETT RANCH FILING NO. 2

## FINAL PLAT

BENNETT RANCH FILING NO. 2
A RESUBDIVISION OF TRACT B, BENNETT RANCH FILING NO. 1
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO

| TRACT | SQ.FT. (ACRES) | LAND USE | OWNERSHIP / MANTENANCE |
| :---: | :---: | :---: | :---: |
| A | 3,342 S.F. (0.077) | PRVATE ACCESS, UTLITY And emergency access Easement |  |
| в | 18,749 S.F. (0.430) | PRVATE ACCESS, UTLLT AND Emergency access Easement |  |
| c | 14,983 S.F. (0.344) | PRVate access, ututr and emergency access easement |  |
| 0 | 6,928 S.F. (0.159) | PRVate access, ututit and emergency access Easement |  |
| E | 24,506 S.F. (0.563) | OPEN SPACE |  |
| F | 17,472 S.F. (0.401) | OPEN SPACE |  |
| 6 | 22,327 S.F. (0.513) | OPEN SPACE |  |
| H | 6,613 s.F. (0.152) | OPEN SPACE |  |
| 1 | 8,264 S.F. (0.189) | open space |  |


| LAND USE | AREA IN ACRES | \% OF TOTAL | owner / mantenance |
| :---: | :---: | :---: | :---: |
| Lots (84) | 5.122 | 57.43 | prvate |
| tracts (9) | 2.828 | 31.71 | BENNETT RANCH METROPOLITAN DISTRICT |
| RIGHT-OF-WAY (PINTABAA DRIE) | 0.968 | 10.85 | town of bennett |
| total | 8.918 | 100.00 |  |





FINAL PLAT BENNETT RANCH FILING NO. 2

## FINAL PLAT

BENNETT RANCH FILING NO. 2
A RESUBDIVISION OF TRACT B, BENNETT RANCH FILING NO. 1
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN,


- found monument as noted
- pot, poc, direction change pont (not to be set) $\otimes$ 1" Yellow plastic cap pls 35597 on a \#4 REbar to be set 4 found section corner as noted


LEGEND

Lot Troct Line
-_- Centerine

[^3]FINAL PLAT
BENNETT RANCH FILING NO. 2

## FINAL PLAT

BENNETT RANCH FILING NO. 2
A RESUBDIVISION OF TRACT B, BENNETT RANCH FILING NO. 1
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6 TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


A RESUBDIVISION OF TRACT B, BENNETT RANCH FILING NO. 1
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6 TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO



TERRAMAX, INC.
CONSULTING

# Engineering Review Memo 

To: Steve Hebert, Town Planning \& Economic Development Director<br>Sara Aragon, Community Development Manager<br>From: Dan Giroux, PE, Engineering Consultant to the Town<br>Date: Monday, September 13, 2021<br>Case: Bennett Ranch North R-3 Townhomes Final Plat - $1^{\text {st }}$ Submittal<br>Subject: Civil Engineering Review

Per the request of the Town of Bennett, Terramax, Inc. has reviewed the 1st LGI/Kimley-Horn submittal of the Final Plat application materials, for the proposed Bennett Ranch North R-3 Townhomes subdivision development.

This review does not constitute a contractual offer to the applicant, and does not relieve the applicant from meeting the Town's requirement that the development comply with all Town Codes and Standards. All prior comments on the development application, including prior Bennett Ranch Phase 1 review comments, are still in force, until acceptably addressed.

Although every attempt has been made to be diligent, thorough and comprehensive, by the nature of review, and relative time invested versus design and plan development, the Town must reserve the right to make original comments and revision requests in subsequent submittals, even for information already submitted, until final application approval.

I have the following comments to offer on the application materials:

## Final Plat \& General

1. Confirm Tract $E$ and easement width along East $38^{\text {th }}$ Avenue is sufficient for IREA/CORE underground purposes and requirements.
2. Local street 90 -degree intersection right-of-way will require Town widened "knuckle" treatment, or waiver from Town Traffic Engineer based on a design large-vehicle turn analysis.
3. Tracts A and B may be extended to East $38^{\text {th }}$ Avenue and/or Appaloosa Avenue to accommodate requested emergency vehicle access (EVA) or water system extensions and connections.

## Water System

1. Fire hydrant system layout subject to review by Bennett-Watkins Fire Rescue (BWFR).
2. Connections to East $38^{\text {th }}$ Avenue via Tract A and Tract B "North" required to provide subject townhomes redundant, looped service, for outage and "dead-water" purposes.

- The requested Tract B connection appears to possibly affect the corresponding East $38^{\text {th }}$ fire hydrant location.

3. Common- or shared-area Tracts E, F, and G may benefit from water piping and water meter setup to support future reuse (purple pipe) water delivery, to minimize water development impact fees, and maximize reuse water use.

## Sanitary Sewer System

1. The existing collection system description on page 1 does not appear to be correct for the road names described.
2. The Appendix B shows the Bennett School District parcel to the southwest, but not the subject parcel sanitary sewer layout.

## Streets \& Access

1. 90-degree Local Street intersections may require widened turning radius "knuckle" treatments per Town Standards, or waiver per Town Traffic Engineer and BWFR, for large design-vehicle turn movement.
2. Asphalt-paved valley-section alleys will require a center concrete drainage pan.
3. Sidewalk-alley intersection crossing vertical alignments will need to be ADA-compliant; the end ramp treatments are not obvious to me from the Drainage exhibit graphic.
4. Emergency vehicle access may be desired via Tract B "East" to Appaloosa Avenue dependent on BWFR and Town Traffic comments.

- The EVA could be landscape "no-planting" breaks, fencing breaks depending on fence proposals, and fire apparatus-capable surfacing, with appropriate signage.
- The intent would be to make this EVA not usable or not attractive for regular traffic use.


## Stormwater

1. Please confirm Bennett Ranch Blvd and Appaloosa Avenue half-street inundation depths and spread-width coverage areas, for the max impact area prior to storm sewer inlet interception.

- These appear to be extended street runs without storm sewer, for townhome-area and -density, and East $38^{\text {th }}$ Avenue pavement, tributary areas.

2. Roof-downspout and splash pads to street, alley, swale or storm sewer outfall points will be important to track for pedestrian sidewalk crossings, wintertime icing potential, and chase sections as needed.

Steve, Sara, this concludes my civil engineering review of the $1^{\text {st }}$ submittal application materials for the Bennett Ranch North R-3 Townhomes Final Plat. Please let me know if you have any questions, or require additional information pertaining to the submitted information, or my review.

To: Steve Hebert, AICP, Bennett Planning \& Economic Development Manager
From: Gabrielle Renner, PE PTOE RSP1
Town Traffic Engineer
Date: 9/8/2021
Re: Town Land Use Case 21.26: Bennett Ranch North R-3 Townhomes Final Plat Town Traffic Engineering Review

The Bennett Ranch North R-3 Townhomes Final Plat application materials were submitted on August 18, 2021. The application materials were reviewed, and the following comments have been provided by the Town Traffic Engineer.

- Final Plat - 1st Submittal dated July 23, 2021
- The site vicinity map should better define the site location on on Page 1.

Figure 1: Site Vicinity Map


- Track A, Track B, and Track C provides 30' ROW
- Please provide the planned cross-section for these roads.
- Parking will not be allowed on these roads
- Street A
- Please provide the planned cross-section for this road.
- There is concern that the driveway cut type might not support emergency vehicles. Please provide additional information for the curb return radii following the Town of Bennett Roadway Design and Construction Standards. Specific locations of concern are shown in Figure 2.

Figure 2: Emergency Vehicle Concerns


- It is recommended to provide landscaping, fencing, or visual barrier at the end of the alleys identified in Figure 3.

Figure 3: Visual Barrier for Drivers


- It is recommended to provide landscaping that emergency vehicles can maneuver over as identified in Figure 4.

Figure 4: Maneuverable Landscaping for Emergency Vehicles


- In Figure 5, Street A shows two 90 degree bends in the road. It is requested that those locations be designed as "Knuckles" 90 degree identified on Drawing 4-41 in the Town of Bennett Roadway Design \& Construction Standards.

Figure 5: Required "Knuckles" 90 Degree Road Design


- The Traffic Impact Study (TIS) completed on December 7, 2018, was reviewed and is still viable for this portion of the Bennett Ranch development. The TIS meets the requirements of the Town of Bennett Traffic Study Guidelines.
- The TIS accounts for 116 multi-family housing units to be built as part of this development and the site now will only include 84 multi-family housing units. This indicates the R-3 Townhomes site traffic will be accommodated within the planned improvements for the overall Bennett Ranch development.

Melinda A. Culley
(303) 298-1601 tel
(303) 298-1627 fax
melinda@kellypc.com

MEMORANDUM
TO: $\quad$ Steve Hebert, Planning \& Economic Development Director Sara Aragon, Community Development Manager

FROM: Melinda Culley /s/
DATE: $\quad$ September 7, 2021
RE: Bennett Ranch Northern Townhomes Plat

I reviewed the plat for Bennett Ranch Northern Townhomes and have the following comments.

## Sheet 1

1. The title of the plat should reflect that this is a final plat. Also, consider referring to this subdivision as Bennett Ranch Filing No. 2. The title could read:

Final Plat
Bennett Ranch Filing No. 2
A resubdivision of Tract B, Bennett Ranch Filing No. 1
Town of Bennett, County of Adams, State of Colorado
2. In the Ownership and Dedication block:
a. Line 2 - Replace "Replat" with "Final Plat"
b. Line 4 - Add the total acreage of the subdivision after the legal description.
c. Line 6 - The name of the subdivision should match the name set forth in the title.
3. Plat Note \#9 is unclear. Please revise.
4. Remove the Planning and Zoning Commission Approval block.

## BENNETT SCHOOL DISTRICT 29J

Sept 2, 2021

Town of Bennett
207 Muegge Way
Bennett, CO 80102

## RE: Case No. 21.26 - Bennett Ranch North R-3 Townhomes Final Plat

Dear Steve;
Bennett School District 29J is pleased to review the final plat proposal for Bennett Ranch North R-3 Townhomes. The application is for 8.9 acres of land being platted for 84 townhomes at a density of $9.43 \mathrm{du} /$ acres.

The Application proposes residential development for property located within the School District's boundaries and, therefore, will have an impact on the School District's responsibility to provide adequate school facilities. Consequently, the School Dedication requirements must be met per Division 5 of the Bennett Municipal Code. Based upon this proposal, we calculate the following dedication requirements:

| Housing Unit Type | Density | Number of Dwelling Units | Elementary |  | Middle |  | High |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Gen Rate | Students | Gen Rate | Students | Gen Rate | Students | Gen Rate | Students |
|  |  | - 7 | - $0^{3}$ ) 0 | - | 2 |  |  |  |  |  |
| SFD | 0-7.49 du/ac |  | 0.36 | 0 | 0.18 | 0 | 0.24 | 0 | 0.775 | 0 |
| MF/Mid Density | 7.5-14.99 du/ac | 84 | 0.17 | 14.28 | 0.08 | 6.72 | 0.11 | 9.24 | 0.364 | 30.58 |
| MF/High Density | $15 \mathrm{du} / \mathrm{ac}+$ |  | 0.09 |  | 0.04 |  | 0.06 |  | 0.195 |  |


| Acres per Student | Elementary |  |  | Middle |  | High |  | Total |  | Cash-in-lieu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number Students | Acres |  | Number Students | Acres | Number Students | Acres | Number Students | Acres |  |
| 0.0597 | 14.28 |  | 0.85 | 6.72 | 0.40 | 9.24 | 0.55 | 30.24 | 1.83 | \$82,142.42 |

Based upon these above calculations, the School District is requesting a cash-in-lieu payment of $\$ 82,142.42$ in one lump sum at the time of final plat approval. A lump sum payment is acceptable at the time of the first building permit.
The School District respectfully requests the opportunity to amend and supplement this letter, as appropriate, to update the Town Planning Department and the Subdivision Agreement concerning cash in-lieu payment as a way to mitigate the impact the development will have on the schools. The District looks forward to working with the Town and developer to address the dedication as they move through the site planning and platting process.

$6157^{\text {th }}$ Street Bennett, CO 80102


303-644-3234 PHONE 303-644-4121 FAX

## FW: Bennett Ranch - R-3 Northern Townhomes

1 message
Daniel Giroux [dangiroux@terramax.us](mailto:dangiroux@terramax.us)
Mon, Sep 13, 2021 at 7:56 AM
To: Town of Bennett Planning [planning@bennett.co.us](mailto:planning@bennett.co.us)
Cc: Sara Aragon [saragon@bennett.co.us](mailto:saragon@bennett.co.us), Steve Hebert [shebert@bennett.co.us](mailto:shebert@bennett.co.us)

This should be included in the review comments for the Bennett Ranch North Townhome Final Plat.

Thank you,

Dan

Daniel P. Giroux, PE
President
Terramax, Inc.
Consulting | Engineering
303-929-3194

From: Caleb Connor [CalebConnor@BennettFireRescue.org](mailto:CalebConnor@BennettFireRescue.org) Date: Monday, September 13, 2021 at 7:52 AM
To: Daniel Giroux [dangiroux@terramax.us](mailto:dangiroux@terramax.us), Victoria Flamini <VictoriaFlamini@ BennettFireRescue.org>
Subject: FW: Bennett Ranch - R-3 Northern Townhomes

I attached a couple notes here to point out some "dry areas" l'd like them to address. Additionally, the exhibit needs to show the distances between hydrants before we can "formally" review/approve it.

- Caleb

From: Victoria Flamini [VictoriaFlamini@BennettFireRescue.org](mailto:VictoriaFlamini@BennettFireRescue.org)
Sent: Friday, September 10, 2021 12:05 PM
To: 'Farrell, Trey' [Trey.Farrell@kimley-horn.com](mailto:Trey.Farrell@kimley-horn.com)
Cc: Daniel Giroux [dangiroux@terramax.us](mailto:dangiroux@terramax.us); Renner, Gabrielle [Gabrielle.Renner@wilsonco.com](mailto:Gabrielle.Renner@wilsonco.com); calebconnor@bennettfirerescue.org
Subject: Bennett Ranch - R-3 Northern Townhomes

Hi Trey,

We were discussing the final plat for Bennett Ranch Northern Townhomes, so I wanted to just send some information for you to consider. Just like you did for Phase I, we will need a site overview and fire hydrant model exhibit demonstrating the placement and distances of all fire hydrants throughout the development, which we will review for IFC Appendix C compliance. It appears that the current utility plans show all the water lines running through the alley's and there is sort of a "dry zone" in the middle of the development area, for lack of a better term. It would be beneficial to review what is planned for hydrant coverage earlier in case modifications are needed for adequate coverage, so I wanted to reach out to you now to raise these flags.

Additionally, the proposed development has streets/alleys/parking lot areas that to serve the proposed townhomes. BWFR will need to see a modeling exhibit based on fire apparatus design criteria showing adequate widths and turning radius to the proposed development. BWFR also may require specific areas be identified as "fire lanes" which must comply with IFC requirements (i.e. no parking in the alleys). I have attached a document for you to look at for modeling, as I am not sure if it has been provided to you before.

Let me know if you have any questions.
Thanks,

## Victoria



## Victoria Flamini

## Life Safety Division | Fire Inspector I Fire \& Life Safety Educator

Bennett-Watkins Fire Rescue
303-644-3572 - Headquarters (x1673)
303-815-8350 - Cell
720-893-7673 - Direct
303-644-3401 - Fax

## www.BennettFireRescue.org

COVID-19: No contact options for conducting business with the District are available. Payments and submittal documents can be deposited in the front door mail slot. Staff can provide assistance by phone and can complete many tasks through email. We also have information and a variety of forms available on our website www.bennettfirerescue.org to further assist you. We appreciate your patience and support during this time.

This email and any files transmitted with it may contain PRIVILEGED or CONFIDENTIAL information and may be read or used only by the intended recipient. If you are not the intended recipient of the email or any of its attachments, please be advised that you have received this email in error and that any use, dissemination, distribution, forwarding, printing, or copying of this email or any attached files is strictly prohibited. If you have received this email in error, please immediately purge it and all attachments and notify the sender by reply email or contact the sender at the number listed.

[^4]

BENNETT RANCH

BENNETT, CO

BENNETT NORTH TOWNHOMES WATER LAYOUT

07/12/2021 | CREATED BY: LNS | SCALE: 1 " $=500$


Kimley»Horn

## REPLAT OF BENNETT RANCH - FILING NO. 1 - TRACT B <br> LOCATED IN THE NORTHEAST QUARTER OF SECTION 27, <br> TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, <br> TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO



VICINITY MAP

OWNERSHIP AND DEDICATION
KNOW ALL MEN BY THESE PRESENTS THAT THE UNDEGS
SHOWN IN THIS RELAT ANO DESCRBEED AS FOLOWS:
TRACT B. BENNETT RANCH - FLLING NO. 1 IN THE NORTHEAST QUARIER OF SECTON 27, TOWNSHIP 3 SOUTH,
RANGE 63 WEST OF THE GTH P.M. COUNTY OF ADAMS, STATE OF COLORAOD.


 IT IS EXPRESSLL UNDERSTOOD AND AGREED BY THE UNDERACS SS SHOWN.






## ownership certicate

for: LGI Homes inc.
$\overline{\text { BY. TRACCE HEPRNGTON Authoized Sinator }}$
notary acknowledgemen
STATE OF COLOPADO
countr of $\qquad$
THE FOREGONG CERTITCATE OF DEDCATION AND OWNERSHIP WAS ACNNOWLOGED BEFORE ME
THIS $\xlongequal{20}{ }^{20}$
$\overline{\text { NOTARY PUBLC }}$
MY COMMISSION EXPRIES
ADDRESS OF NOTARY: -

## plat notes

1. THIS PLAT CONTANS 84 MULTI-FAMLI LOTS AND VARIOUS TRACTS, AS SHOWN IN THE TRACT SUMMARY ON
SHEET 2 OF THIS PLAT DOCUENT.
2. THE BENNETT RANCH METROPOLTIAN DISTRICT SHALL BE RESPONSIBLE FOR MANTENANCE AND REPARR, AS




3. FOR SUBODSION BOUNDARY MONMENTATON, MNMUM STANOAROS FOR MONUMENTS MUST CONFORM TO



 APRKOWLEDCES
ACN THIS PLAT.

ADD DEDICATION OF UTILITY EASEMENTS- NON-EXCLUSIVE 5-FOOT, 10-FOOT SAND 15-FOOT UTILITY EASEMENTS LOCATED AS SHOWN ARE HEREBY GRANTED SAOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF UTLIITIES AND
VRAINAG FACLITIIES, INCLUDING, BUT ANT LIIITTD TO STRET LIGHTS, ELECTRIC
LINES GAS LINES CABE TELEVISION LINES FIBER OPTIC LINES AND TELEPHONE LINES, AS WELL AS PERPETUAL RIGHT FOR INGRESS AND EGRESS FOR
2 INSTALLATION, MAINTENANCE, AND REPLACEMENT OF SUCH LINES


3. TRACT B IS LOCATED ON FEMA FRRM MAP NUMBER O8001 CO718H DATED MARCH 5, 2007, AND LIES W
 COUNTERFORTS, PATIOS, DECKS, RETAINING WALLS AND THEIR GCOMPONENT
EASEMENTS

 5. THE FIELO SUPVEY NORTH QUARTER CORNER OF SAID SECTION 27 :
5. THE FiLLD surver was completed on June 10, 2021

Surver feet.
street "A" shown on this replat is hereby deolcated to the town of bennet per this replat
planning and zoning commission approval
thils plat, to be known as replat of bennet ranch - fling no. 1, was approved br action of the PLANNING AND ZONNG COMMISSION OF THE TOWN OF JOHNSTOWN, COLORADO AT A REGULAR MEETING HELD ON

```
BY: CHAR, PLANNNG AND ZONNG COMMISSION
```

Town Council approval
this plat, to be known as replat of bennett ranch - fllng no. 1, is approved and accepted ey THE TOWN OF BENEET, BY RESOLUTION NOWBER RASSED AND ADOPTED ON FINAL REAOING AT A REGULAR MEETNG OF THE TOWN COUNCIL OF THE TOWN OF JOHNSTOWN, Colorado helo
ON THE 20 DAY ON THE
MAYOR
ATEST: $\xlongequal{\text { TOWN CLERK }}$

SURVEY CERTIFICATION

1. ROBERT DALEY, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO
HEREBY CERTIFY THAT IMADE THE WTHIN AND FOREGOING PLAT AND DESCRIPTION OF THE IAND AS
 SAID PLAT AA.
KNOWLEDGE.
$\overline{\text { ROBERT DALEY, }} \begin{aligned} & \text { COLORADO REG. }\end{aligned}$.
COLORADO REG. NO. 35597
FOR AND ON BEHALF OF DALEY LAND SURVEYING, INC.
DISTRICT ACCEPTANCE
THE UNDERSIGNED BENNETT RANCH METROPOLTAN DISTRICT HEREBY ACKNOWLEDGES AND ACCEPTS
THE GRANT OF EASEMENTS TO THE UNDERSIGNED AS DESIGNATED AND SHOWN HEREON FOR THE GRANT OF EASEMENTS TO THE UNDERSIGNED AS
MAINTEANCE RESPONSIBLITY AS SPECFFIED HEREON.
BENNETT RANCH METROPOUITAN DIITTIITT, A QUASI-MUNICIPAL CORPORATION AND POLITICAL
SUBEIISION OF THE STATE OF COLORADO.
NoTICE:
BENNETT
the foregong was acknowledged before me by this $\qquad$ dAY OF ACTING IN HIS
$\underbrace{20 \_}{ }^{20}$ BY $\qquad$
ISTRICT, A QUASI-MUNCIPAL CORPO
SUBDIVIIIN OF THE STATE OF COLORADO
witness my hand and official seal
MY COMMISSION EXPIRES
$\qquad$

NOTARY PUBLIC
CLERK AND RECORDER'S CERTIFICATE
DEPOSTEED THS - Dar
in Book ___ at Page___ as reception no.
of the the official records of weld countr, colorado
BY: $\overline{\text { COUNIY CLERK AND RECORDER }}$

SHEET INDEX

| DATE: <br> JULY 23, 2021 | REVISIONS | BY | DATE |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | SURVEYED BY: SE |
|  |  |  |  | DRAWN BY: AV |
| SHEET 1 OF 5 |  |  |  | CHECKED BY: RD |
|  |  |  |  | JOB NUMBER:1906-006 |
|  |  |  |  |  |

DALEY LAND SURVEYING, INC 17011 LINCOLNAVE \#361 PARKER, CO 80134

REPLAT OF BENNETT RANCH - FILING NO. 1 - TRACT B
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


| $\underline{L A N D ~ U S E ~ T A B L E ~}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| LAND USE | AREA IN ACRES | \% Of TOTAL | owner / Mantenance |
| Lots (84) | 5.127 | 57.49 | PRIVATE |
| tracts (9) | 2.853 | 31.99 | BENNETT RANCH METROPOLTAN DISTRICT |
| RIGHT-OF-WAY (STREET A) | 0.938 | 10.52 | Town of BENETT |
| total | 8.918 | 100.00 |  |


$\qquad$


SHEET INDEX SHEET 1 COVER SHEET
SHEET 2 SHEET NNEX MAP
SEEE 3 BOUNDRY MAP SHEET
SHET
SHEET
SHOUNDARY
5 PLAN SHET SHEET

| DATE: <br> JULY 23, 2021 | REVIIIONS |  | BY | DATE |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | SURVEYED BY: SE |
|  |  |  |  |  | DRAWN BY: AV |
| SHEET 2 OF 5 |  |  |  |  | CHECKED BY: RD |
|  |  |  |  |  | JOB NUMBER: <br> 1906-006 |
|  |  |  |  |  |  |




5. Replace the Town Council Approval block with the following: TOWN APPROVAL BLOCK
This is to certify that the Plat of ___ insert subdivision name _was approved on the $\qquad$ day of $\qquad$ , 20___by Resolution No. $\qquad$ and that the Mayor of the Town of Bennett on behalf of the Town of Bennett, hereby acknowledges said Plat upon which this certificate is endorsed for all purposes indicated thereon.
$\qquad$

## ATTEST:

$\qquad$ Mayor
6. In the District Acceptance block, add a reference to the tracts that the District is responsible for maintaining by inserting "and tracts" after "easements."

Sheets 2-4
7. Add the name of Street A to the plat.

REPLAT OF BENNETT RANCH - FILING NO. 1 - TRACT B
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


| LaND USE | AREA IN ACRES | \% of total | ouner / Mantenance |
| :---: | :---: | :---: | :---: |
| Lots (84) | 5.127 | 57.49 | PRVATE |
| tracts (9) | 2.853 | 31.99 | BENNETT RANCH METROPOLITAN DISTRICT |
| RIGHT-OF-WAY (STREET A) | 0.938 | 10.52 | town of bennett |
| total | 8.918 | 100.00 |  |


$\qquad$

$\qquad$

SHEET INDEX SHEET 1 COVER SHEET
SHEET 2 SHEET NEE MAP
SHEET 3 BOUNARY MAP


| DATE: <br> JULY 23, 2021 | REVIIIONS |  | BY | DATE |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | SURVEYED BY: SE |
|  |  |  |  |  | DRAWN BY: AV |
| SHEET 2 OF 5 |  |  |  |  | CHECKED BY: RD |
|  |  |  |  |  | JOB NUMBER: <br> 1906-006 |




REPLAT OF BENNETT RANCH - FILING NO. 1 - TRACT B
LOCATED IN THE NORTHEAST QUARTER OF SECTION 27,
TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT, COUNTY OF ADAMS, STATE OF COLORADO


1889 York Street
Denver, CO 80206
(303) 333-1105

FAX (303) 333-1107
E-mail: lsc@Iscdenver.com

Re: Bennett Ranch<br>Traffic Impact Analysis<br>Bennett, CO<br>LSC \#181140

Dear Mr. Blumenthal:
In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Bennett Ranch development. As shown on Figure 1, the site is located south of E. $38^{\text {th }}$ Avenue and west of SH 79 (Kiowa-Bennett Road) in Bennett, Colorado.

## REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

## LAND USE AND ACCESS

The site is proposed to include about 416 single-family dwelling units, about 231 multi-family dwelling units, a 17.68 -acre area to be dedicated to the school district, a 15.36 -acre park, a 20,000 square-foot fire station, and about 99,600 square feet of retail space. Full movement access points are proposed to E. $38^{\text {th }}$ Avenue and SH 79 (Kiowa-Bennett Road or Palmer Avenue) as shown in the conceptual site plan in Figure 2.

## ROADWAY AND TRAFFIC CONDITIONS

## Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- SH 79 (Kiowa-Bennett Road and/or Palmer Avenue) is a north-south, two-lane state highway east of the site. South of E. $38^{\text {th }}$ Avenue, it is classified by CDOT as NR-B (NonRural Arterial) and as R-B (Rural Highway) north of E. $38^{\text {th }}$ Avenue. The intersection with E. $38^{\text {th }}$ Avenue is stop-sign controlled. The posted speed limit in the vicinity of the site transitions from 35 to 65 mph as the roadway moves from urban to rural. The 2013 SH 79-Kiowa Bennett Corridor PEL Study (SH 79 PEL) shows SH 79 being realigned in the future between the site and I-70. The portion south of the site (Palmer Avenue) will likely be turned over to the Town of Bennett with the primary alignment headed south to cross E. Colfax Avenue. Both roadways are assumed to be four-lane roadways adjacent to the site by 2040. All full movement access proposed to SH 79 is consistent with the August, 2018 SH 79 Access Control Plan by SM Rocha, LLC.
- E. 38 ${ }^{\text {th }}$ Avenue is an east-west, two-lane gravel collector roadway north of the site. The intersection with SH 79 is stop-sign controlled. No speed limit is posted in the vicinity of the site.


## Existing Traffic Conditions

Figure 3 shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in September and November, 2018.

## 2023 and 2040 Background Traffic

Figure 4 shows the estimated 2023 background traffic and Figure 5 shows the estimated 2040 background traffic based on an annual growth rate of 2.3 percent on SH 79 at $\mathrm{E} .38^{\text {th }}$ Avenue per the SH 79 PEL.

## Existing, 2023, and 2040 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in Figures 3, 4, and 5 were analyzed as appropriate to determine the existing, 2023 , and 2040 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- SH 79 (Kiowa-Bennett Road)/E. 38 ${ }^{\text {th }}$ Avenue: All movements at this unsignalized intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better through 2040.
- SH 79 (Palmer Avenue)/Old Victory Road: All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peakhours and are expected to do so through 2023. This intersection is expected to be reconfigured by 2040.
- SH 79 (Kiowa-Bennett Road)/Old Victory Road/Palmer Avenue: All movements at this future unsignalized intersection are expected to operate at LOS "B" or better through 2040.
- SH 79 (Palmer Avenue)/Greg's Place: All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to do so through 2040.
- SH 79 (Palmer Avenue)/8th Street: All movements at this unsignalized intersection currently operate at LOS "C" or better during both morning and afternoon peak-hours and are expected to operate at LOS "D" or better through 2040.


## TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from Trip Generation, $10^{\text {th }}$ Edition, 2017 by the Institute of Transportation Engineers (ITE) for the proposed land use.

The site is projected to generate about 8,147 primary vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 167 vehicles would enter and about 351 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 526 vehicles would enter and about 405 vehicles would exit. This assumes 34 percent of the shopping center land use trips are pass-by trips.

## TRIP DISTRIBUTION

Figure 6 shows the estimated 2023 and 2040 directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

## TRIP ASSIGNMENT

Figure 7a shows the estimated 2023 primary site-generated traffic volumes based on the 2023 directional distribution percentages (from Figure 6) and the primary trip generation estimate (from Table 2).

Figure 7b shows the estimated 2040 primary site-generated traffic volumes based on the 2040 directional distribution percentages (from Figure 6) and the primary trip generation estimate (from Table 2).

Figures 8a and 8b show the estimated 2023 and 2040 pass-by site-generated traffic volumes.

## 2023 AND 2040 TOTAL TRAFFIC

Figure 9 shows the 2023 total traffic which is the sum of 2040 background traffic volumes (from Figure 4) and the 2023 site-generated traffic volumes (from Figures 7a and 8a). Figure 9 also shows the recommended 2023 lane geometry and traffic control.

Figure 10 shows the 2040 total traffic which is the sum of 2040 background traffic volumes (from Figure 5) and the 2040 site-generated traffic volumes (from Figures 7b and 8b). Figure 10 also shows the recommended 2040 lane geometry and traffic control.

## PROJECTED LEVELS OF SERVICE

The intersections in Figures 9 and 10 were analyzed to determine the 2023 and 2040 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- E. 38 ${ }^{\text {th }}$ Avenue/Northwest Site Access: All movements at this future unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2040.
- E. 38 ${ }^{\text {th }}$ Avenue/Northeast Site Access: All movements at this future unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2040.
- E. 38 ${ }^{\text {th }}$ Avenue/Fire Station Access: All movements at this future unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2040.
- SH 79 (Kiowa-Bennett Road)/E. $\mathbf{3 8}^{\text {th }}$ Avenue: All movements at this unsignalized intersection are expected to operate at LOS "C" or better during both morning and afternoon peak-hours through 2040.
- SH 79 (Kiowa-Bennett Road)/East Site Access: All movements at this future unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2040.
- SH 79 (Kiowa-Bennett Road)/Old Victory Road: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2023. This intersection is expected to be reconfigured by 2040.
- SH 79 (Kiowa-Bennett Road)/Old Victory Road/Palmer Avenue: All movements at this future unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2040 with the exception of the eastbound leftturn movement which is expected to operate at LOS " F " in the 2040 afternoon peak-hour.
- Palmer Avenue/Southeast Site Access: All movements at this future unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2040.
- SH 79 (Kiowa-Bennett Road)/RIRO Commercial Access: All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2023 while Palmer Avenue remains under CDOT jurisdiction.
- SH 79 (Kiowa-Bennett Road)/Full Movement Commercial Access: All movements at this future unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours in 2040 after Palmer Avenue transitions from CDOT to Town jurisdiction.
- SH 79 (Kiowa-Bennett Road)/Gregs Place: All movements at this unsignalized intersection are expected to operate at LOS "C" or better during both morning and afternoon peak-hours through 2040 with the following exception: The southbound left-turn movement will likely operate at LOS "E" during the 2023 afternoon peak-hour prior to SH 79 being relocated away from the Palmer Avenue alignment.
- SH 79 (Kiowa-Bennett Road)/8 $\mathbf{8}^{\text {th }}$ Street: All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peakhours through 2040 with the following exception: The southbound left-turn movement will likely operate at LOS "E" during both peak-hours prior to SH 79 being relocated away from the Palmer Avenue alignment.


## TRAFFIC SIGNAL WARRANT ANALYSIS

Figure 11 shows the 2040 background and total traffic volumes from Figures 5 and 10 for the SH 79/Old Victory Road/Palmer Avenue intersection plotted on a four-hour traffic signal warrant chart. It shows a traffic signal will likely be warranted by 2040.

## CONCLUSIONS AND RECOMMENDATIONS

## Trip Generation

1. The site is projected to generate about 8,147 primary vehicle-trips on the average weekday, with about half entering and half exiting during a 24 -hour period. During the morning peak-hour, about 167 vehicles would enter and about 351 vehicles would exit the site. During the afternoon peak-hour, about 526 vehicles would enter and about 405 vehicles would exit. This assumes 34 percent of the shopping center trips are pass-by trips.

## Projected Levels of Service

2. All movements at the intersections analyzed are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2040 with the following exceptions: The southbound left-turn movements from Gregs Place and $8^{\text {th }}$ Street to SH 79 (Palmer Avenue) could operate at LOS "E" by 2023 prior to SH 79 being relocated away from the Palmer Avenue alignment. The eastbound left-turn movement from Palmer Avenue to realigned SH 79 could operate at LOS " $F$ " in the 2040 afternoon peak-hour. Traffic signal control or a left-turn acceleration lane may be needed by 2040.

## Conclusions

3. The impact of the Bennett Ranch development can be accommodated by the existing roadway network with the following recommended improvements.

## Recommendations

4. CDOT and the Town of Bennett coordinate to realign and widen SH 79 through Bennett as planned in the SH 79-Kiowa Bennett Corridor PEL Study between 2023 and 2040.
5. The recommended turn lane lengths for intersections impacted by the site are shown in Figures 9 and 10.
6. The intersection of realigned SH 79 with Old Victory Road and Palmer Avenue may require traffic signal control or an eastbound to northbound left-turn acceleration lane by 2040.

*     *         *             *                 * 

We trust our findings will assist you in gaining approval of the proposed Bennett Ranch development. Please contact me if you have any questions or need further assistance.


Enclosures: Tables 1 and 2
Figures 1-11
Traffic Count Reports
Level of Service Definitions
Level of Service Reports
Z: \LSC $\backslash$ Projects $\backslash 2018 \backslash 181140$-BennettRanch $\backslash$ Report $\backslash$ BennettRanch-120718.wpd


| $\underline{\text { Intersection Location }}$ | Traffic Control | Table 1 (Page 2 of 2) <br> Intersection Levels of Service Analysis Bennett Ranch Bennett, CO <br> LSC \#181140; December, 2018 |  |  |  |  |  | $2040$ <br> Background Traffic |  | $\begin{gathered} 2040 \\ \text { Total Traffic } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Existing Traffic |  | 2023 <br> Background Traffic |  | $\begin{gathered} 2023 \\ \text { Total Traffic } \end{gathered}$ |  |  |  |  |  |
|  |  | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM | Level of Service AM | Level of Service PM |
| SH 79/Old Victory Rd./Palmer Ave. | TWSC |  |  |  |  |  |  |  |  |  |  |
| NB Left |  | -- | -- | -- | -- | -- | -- | A | A | A | A |
| EB Left |  | -- | -- | -- | -- | -- | -- | B | B | C | F |
| EB Through/Right |  | -- | -- | -- | -- | -- | -- | B | B | B | B |
| WB Left |  | -- | -- | -- | -- | -- | -- | B | B | C | D |
| WB Through/Right |  | -- | -- | -- | -- | -- | -- | B | B | B | C |
| SB Left |  | -- | -- | -- | -- | -- | -- | A | A | A | A |
| Critical Movement Delay |  | -- | -- | -- | -- | -- | -- | 14.4 | 14.4 | 22.0 | 55.5 |
| Palmer Avenue/Southeast Site Access | TWSC |  |  |  |  |  |  |  |  |  |  |
| NB Approach |  | -- | -- | -- | -- | -- | -- | A | A | B | B |
| EB Left |  | -- | -- | -- | -- | A | A | -- | -- | A | A |
| WB Left |  | -- | -- | -- | -- | -- | -- | A | A | A | A |
| SB Approach |  | -- | -- | -- | -- | B | B | -- | -- | B | B |
| Critical Movement Delay |  | -- | -- | -- | -- | 10.7 | 13.3 | 9.6 | 9.5 | 11.6 | 13.3 |
| Palmer Avenue/Commercial Access | TWSC |  |  |  |  |  |  |  |  |  |  |
| EB Left | RIRO in 2023 | -- | -- | -- | -- | -- | -- | -- | -- | A | A |
| SB Right | Full Move- | -- | -- | -- | -- | B | B | -- | -- | B | B |
| Critical Movement Delay | ment in 2040 | -- | -- | -- | -- | 10.2 | 10.4 | -- | -- | 10.4 | 11.4 |
| Palmer Avenue/Greg's Place | TwSC |  |  |  |  |  |  |  |  |  |  |
| EB Approach or Left |  | A | A | A | A | A | A | A | A | A | A |
| SB Approach |  | B | B | B | B | -- | -- | B | A | -- | -- |
| SB Left |  | -- | -- | -- | -- | C | E | -- | -- | B | B |
| SB Right |  | -- | -- | -- | -- | B | B | -- | -- | A | A |
| Critical Movement Delay |  | 10.5 | 10.3 | 10.8 | 11.1 | 16.7 | 44.2 | 10.2 | 9.8 | 12.5 | 14.6 |
| Palmer Avenue/8th Street | TWSC |  |  |  |  |  |  |  |  |  |  |
| EB Approach or Left |  | A | A | A | A | B | A | A | A | A | A |
| SB Left |  | C | C | D | B | E | E | D | B | D | B |
| SB Right |  | B | B | B | B | C | B | A | A | A | A |
| Critical Movement Delay |  | 23.0 | 15.9 | 26.3 | 14.7 | 46.4 | 43.8 | 26.5 | 12.9 | 28.8 | 14.8 |












(1) EB LT $=530$ feet ( 275 feet for deceleration +255 feet for vehicle storage) +160 -foot transition taper (2) WB RT $=275$ feet +160 -foot transition taper (3) SB LT $=150$ feet +100 -foot transition taper (4) WB RT $=275$ feet +160 -foot transition taper (5) EB LT $=385$ feet ( 275 feet for deceleration +110 feet for
vehicle storage) +160 -foot transition taper
(6) WB RT $=275$ feet +160 -foot transition taper
(7) NB LT $=355$ feet ( 275 feet for deceleration +80 feet for vehicle storage) +160 -foot transition taper
(8) 345 feet ( 275 feet for deceleration +70 feet for vehicle storage) +160 -foot transition taper
(9) Provide 25 -foot storage pocket in redirect taper for NB L lane.




## COUNTER MEASURES INC.

N/S STREET: KIOWA BENNETT RD E/W STREET: 38TH AVE

1889 YORK STREET<br>DENVER.COLORADO 303-333-7409

File Name : KIOW38TH
Site Code : 00000020
Start Date: 9/20/2018
Page No : 1
Groups Printed- VEHICLES

|  | KIOWA BENNETT Southbound |  |  |  | 38TH AVE <br> Westbound |  |  |  | KIOWA BENNETT Northbound |  |  |  | 38TH AVE <br> Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 1 | 0 | 2 | 0 | 47 |
| 06:45 AM | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 54 |
| Total | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 48 | 0 | 0 | 1 | 0 | 2 | 0 | 101 |
| 07:00 AM | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 16 | 0 | 0 | 0 | 0 | 1 | 0 | 54 |
| 07:15 AM | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 4 | 0 | 49 |
| 07:30 AM | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 23 | 0 | 0 | 0 | 0 | 2 | 0 | 71 |
| 07:45 AM | 0 | 45 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 23 | 0 | 0 | 1 | 0 | 1 | 0 | 72 |
| Total | 0 | 156 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 75 | 0 | 0 | 1 | 0 | 8 | 0 | 246 |
| 08:00 AM | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 1 | 0 | 43 |
| 08:15 AM | 0 | 31 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| Total | 0 | 51 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 0 | 1 | 0 | 99 |


| 04:00 PM | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 2 | 0 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:15 PM | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 27 | 0 | 0 | 1 | 0 | 2 | 0 | 56 |
| 04:30 PM | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 04:45 PM | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 55 | 0 | 0 | 0 | 0 | 1 | 0 | 95 |
| Total | 0 | 109 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 149 | 0 | 0 | 1 | 0 | 5 | 0 | 272 |


| 05:00 PM | 0 | 41 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 4 | 0 | 79 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05:15 PM | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 2 | 0 | 67 |
| 05:30 PM | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 35 | 0 | 0 | 0 | 0 | 2 | 0 | 71 |
| 05:45 PM | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 57 |
| Total | 0 | 128 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 132 | 0 | 0 | 0 | 0 | 8 | 0 | 274 |


| Grand Total | 0 | 493 | 6 | 0 | 0 | 0 | 0 | 0 | 16 | 450 | 0 | 0 | 3 | 0 | 24 | 0 | 992 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 0.0 | 98.8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 96.6 | 0.0 | 0.0 | 11.1 | 0.0 | 88.9 | 0.0 |  |

## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: KIOWA BENNETT RD
DENVER.COLORADO
File Name : KIOW38TH
E/W STREET: 38TH AVE 303-333-7409

Site Code : 00000020
Start Date: 9/20/2018
Page No : 2



N/S STREET: KIOWA BENNETT RD DENVER.COLORADO

File Name : KIOW38TH
E/N STREET: 38TH AVE
303-333-7409
Site Code : 00000020
Start Date : 9/20/2018
Page No : 2
COUNTY: ADAMS



## COUNTER MEASURES INC.

N/S STREET: GREG'S PL
E/W STREET: PALMER AVE CITY: BENNETT
COUNTY: ADAMS

## 1889 YORK STREET <br> DENVER.COLORADO <br> 303-333-7409

Groups Printed- VEHICLES

|  | GREG'S PL <br> Southbound |  |  |  | PALMER AVE Westbound |  |  |  | GREG'S PL Northbound |  |  |  | PALMER AVE Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | $\begin{aligned} & \text { Int. } \\ & \text { Total } \end{aligned}$ |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 0 | 1 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | , | 15 | 0 | 0 | 39 |
| 06:45 AM | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 59 |
| Total | 0 | 1 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 39 | 0 | 0 | 98 |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 33 | , | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 43 |
| 07:15 AM | 1 | 0 | 0 | 0 | 0 | 42 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 55 |
| 07:30 AM | 5 | 0 | 0 | 0 | 0 | 63 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 17 | 0 | 0 | 90 |
| 07:45 AM | 2 | 0 | 4 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 26 | 0 | 0 | 85 |
| Total | 8 | 0 | 4 | 0 | 0 | 190 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 63 | 0 | 0 | 273 |


| 04:00 PM | 10 | 0 | 7 | 0 | 0 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 42 | 0 | 0 | 98 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $04: 15 \mathrm{PM}$ | 7 | 0 | 5 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 36 | 0 | 0 | 70 |
| $04: 30 \mathrm{PM}$ | 2 | 0 | 0 | 0 | 0 | 29 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 51 | 0 | 0 | 85 |
| $04: 45 \mathrm{PM}$ | 3 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 56 | 0 | 0 | 93 |
| Total | 22 | 0 | 12 | 0 | 0 | 117 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 185 | 0 | 0 | 346 |


| 05:00 PM | 1 | 0 | 1 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 36 | 0 | 0 | 78 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05:15 PM | 1 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 43 | 0 | 0 | 75 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 72 |
| 05:45 PM | 1 | 0 | 1 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 29 | 0 | 0 | 66 |
| Total | 3 | 0 | 2 | 0 | 0 | 135 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 147 | 0 | 0 | 291 |


| Grand Total | 38 | 1 | 18 | 0 | 0 | 566 | 9 | 0 | 0 | 0 | 0 | 0 | 22 | 483 | 0 | 0 | 1137 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 66.7 | 1.8 | 31.6 | 0.0 | 0.0 | 98.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 95.6 | 0.0 | 0.0 |  |
| Total \% | 3.3 | 0.1 | 1.6 | 0.0 | 0.0 | 49.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 42.5 | 0.0 | 0.0 |  |

## COUNTER MEASURES INC.

1889 YORK STREET
N/S STREET: GREG'S PL
DENVER.COLORADO
File Name: GREGPALM
EIN STREET: PALMER AVE 303-333-7409

Site Code : 00000022
Start Date: 9/20/2018
Page No : 2

|  | GREG'S PL <br> Southbound |  |  |  |  | PALMER AVE Westbound |  |  |  |  | GREG'S PL Northbound |  |  |  |  | PALMER AVE Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thr u | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{\|r\|} \hline \text { Ped } \\ s \\ \hline \end{array}$ | App. Total | Left | $\begin{array}{r} \hline \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \text { ht } \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | Thr u | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | Ped | App. Total | Left | $\begin{array}{r} \text { Thr } \\ u \\ \hline \end{array}$ | $\begin{array}{r} \text { Rig } \\ \mathrm{ht} \end{array}$ | Ped s | App. Total | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |

Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1


|  |  |  |
| :---: | :---: | :---: |
|  | 9/20/2018 7:15:00 AM 9/20/2018 8:00:00 AM VEHICLES |  |
|  |  |  |

## COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409
File Name: GREGPALM
EN STREET: PALMER AVE
Site Code: 00000022
Start Date : 9/20/2018
Page No : 2


## COUNTER MEASURES INC.

> 1889 YORK STREET
> DENVER.COLORADO
> $303-333-7409$

E/W STREET: PALMER AVE
CITY: BENNETT
COUNTY: ADAMS
File Name : 8THPALM
Site Code: 00000015
Start Date: 9/20/2018
Page No : 1
Groups Printed- VEHICLES

|  | 8TH ST Southbound |  |  |  | PALMER AVE Westbound |  |  |  | 8TH ST Northbound |  |  |  | PALMER AVE Eastbound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0. | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |  |
| 06:30 AM | 0 | 0 | 3 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 16 | 0 | 0 | 43 |
| 06:45 AM | 0 | 0 | 0 | 0 | 0 | 34 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 24 | 0 | 0 | 65 |
| Total | 0 | 0 | 3 | 0 | 0 | 56 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 40 |  | 0 | 108 |


| 07:00 AM | 0 | 0 | 1 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 9 | 0 | 0 | 57 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 AM | 1 | 0 | 8 | 0 | 0 | 33 | 9 | 0 | 0 | 0 | 0 | 0 | 29 | 11 | 0 | 0 | 91 |
| 07:30 AM | 3 | 0 | 40 | 4 | 0 | 40 | 23 | 0 | 0 | 0 | 0 | 0 | 69 | 17 | 0 | 0 | 196 |
| 07:45 AM | 4 | 0 | 73 | 2 | 0 | 39 | 13 | 0 | 0 | 0 | 0 | 0 | 83 | 23 | 0 | 0 | 237 |
| Total | 8 | 0 | 122 | 6 | 0 | 145 | 45 | 0 | 0 | 0 | 0 | 0 | 195 | 60 | 0 | 0 | 581 |
| 08:00 AM | 6 | 0 | 33 | 0 | 0 | 28 | 5 | 0 | 0 | 0 | 0 | 0 | 15 | 22 | 0 | 0 | 109 |
| 08:15 AM | 3 | 0 | 10 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 25 | 0 | 0 | 82 |
| Total | 9 | 0 | 43 | 0 | 0 | 62 | 5 | 0 | 0 | 0 | 0 | 0 | 25 | 47 | 0 | 0 | 191 |


| 04:00 PM | 6 | 0 | 58 | 6 | 0 | 34 | 8 | 0 | 0 | 0 | 0 | 2 | 41 | 39 | 0 | 0 | 194 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $04: 15 \mathrm{PM}$ | 3 | 0 | 38 | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 27 | 34 | 0 | 0 | 127 |
| $04: 30 \mathrm{PM}$ | 8 | 0 | 20 | 0 | 0 | 24 | 5 | 0 | 0 | 0 | 0 | 0 | 21 | 44 | 0 | 0 | 122 |
| $04: 45 \mathrm{PM}$ | 3 | 0 | 20 | 0 | 0 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 22 | 54 | 0 | 0 | 132 |
| Total | 20 | 0 | 136 | 6 | 0 | 113 | 16 | 0 | 0 | 0 | 0 | 2 | 111 | 171 | 0 | 0 | 575 |


| 05:00 PM | 3 | 0 | 15 | 2 | 0 | 35 | 5 | 0 | 0 | 0 | 0 | 0 | 16 | 34 | 0 | 0 | 110 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $05: 15 \mathrm{PM}$ | 4 | 0 | 20 | 0 | 0 | 25 | 4 | 0 | 0 | 0 | 0 | 0 | 20 | 41 | 0 | 0 | 114 |
| $05: 30 \mathrm{PM}$ | 2 | 0 | 11 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 37 | 0 | 0 | 93 |
| $05: 45 \mathrm{PM}$ | 2 | 0 | 9 | 0 | 0 | 33 | 2 | 0 | 0 | 0 | 0 | 0 | 13 | 28 | 0 | 0 | 87 |
| Total | 11 | 0 | 55 | 2 | 0 | 126 | 11 | 0 | 0 | 0 | 0 | 0 | 59 | 140 | 0 | 0 | 404 |


| Grand Total | 48 | 0 | 359 | 14 | 0 | 502 | 78 | 0 | 0 | 0 | 0 | 2 | 398 | 458 | 0 | 0 | 1859 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 11.4 | 0.0 | 85.3 | 3.3 | 0.0 | 86.6 | 13.4 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 46.5 | 53.5 | 0.0 | 0.0 |  |
| Total \% | 2.6 | 0.0 | 19.3 | 0.8 | 0.0 | 27.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 21.4 | 24.6 | 0.0 | 0.0 |  |

## COUNTER MEASURES INC.

## 1889 YORK STREET <br> DENVER.COLORADO <br> 303-333-7409

File Name: 8THPALM
N/S STREET: 8THST
Site Code: 00000015
Start Date: 9/20/2018
Page No : 2

|  | 8THST Southbound |  |  |  |  | PALMER AVE Westbound |  |  |  |  | 8TH ST Northbound |  |  |  |  | PALMER AVE Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thr $u$ | $\begin{gathered} \text { Rig } \\ \text { ht } \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ s \end{array}$ | App. Total | Left | Thr u | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | Ped | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{gathered} \text { Rig } \\ \mathrm{ht} \end{gathered}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{gathered} \mathrm{Thr} \\ \mathrm{u} \end{gathered}$ | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{r} \text { Ped } \\ s \end{array}$ | App. Total | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |
| Peak Hour From 07:15 AM to 08:00 AM - Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersecti | 07:15 AM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume | 14 | 0 | 154 | 6 | 174 | 0 | 140 | 50 | 0 | 190 | 0 | 0 | 0 | 0 | 0 | 196 | 73 | 0 | 0 | 269 | 633 |
| Percent | 8.0 | 0.0 | $88 .$ | 3.4 |  |  | 73 7 | 26. | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 |  | 72. | 27. | 0.0 | 0.0 |  |  |
| 07:45 Volume | 4 | 0 | 73 | 2 | 79 | 0 | 39 | 13 | 0 | 52 |  | 0 | 0 | 0 | 0 | 83 | 23 | 0 | 0 | 106 | 237 |
| Peak |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.668 |
| Factor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Int. | 07:45 AM |  |  |  |  | 07:30 AM |  |  |  |  |  | 0 |  |  |  | 07:45 |  |  |  |  |  |
| Volume | 4 | 0 | 73 | 2 | 79 |  | 40 | 23 | 0 | 63 | 0 |  | 0 | 0 | 0 | 83 | 23 | 0 | 0 | 106 |  |
| Peak |  |  |  |  | 0.55 |  |  |  |  | 0.75 |  |  |  |  |  |  |  |  |  | 0.63 |  |
| Factor |  |  |  |  | 1 |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |  |



## COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
File Name: 8THPALM
N/S STREET: 8THST
303-333-7409
Site Code: 00000015
Start Date: 9/20/2018
Page No : 2

|  | 8TH ST <br> Southbound |  |  |  |  | PALMER AVE Westbound |  |  |  |  | 8TH ST Northbound |  |  |  |  | PALMER AVE Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start <br> Time | Left | $\begin{array}{r} \text { Thr } \\ u \\ \hline \end{array}$ | $\begin{array}{r} \text { Rig } \\ \mathrm{ht} \end{array}$ | $\begin{array}{\|r\|} \text { Ped } \\ s \end{array}$ | App. Total | Left | $\begin{array}{r} \text { Thr } \\ \mathrm{u} \\ \hline \end{array}$ | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \mathrm{Thr} \\ \mathrm{u} \end{array}$ | $\begin{array}{r} \mathrm{Rig} \\ \mathrm{ht} \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | Left | $\begin{array}{r} \text { Thr } \\ u \\ \hline \end{array}$ | $\begin{array}{r} \text { Rig } \\ \text { ht } \end{array}$ | $\begin{array}{r} \text { Ped } \\ \mathrm{s} \end{array}$ | App. Total | $\begin{array}{r} \text { Int. } \\ \text { Total } \end{array}$ |
| Peak Hour From 04:00 PM to 04:45 PM - Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersecti on | 04:00 PM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume | 20 | 0 | 136 | 6 | 162 | 0 | 113 | 16 | 0 | 129 | 0 | 0 | 0 | 2 | 2 | 111 | 171 | 0 | 0 | 282 | 575 |
| Percent | 12. | 0.0 | $\begin{array}{r} 84 . \\ 0 \end{array}$ | 3.7 |  | 0.0 | 87. 6 | 12. | 0.0 |  | 0.0 | 0.0 | 0.0 | 100 0 |  | 39. 4 | 60 6 | 0.0 | 0.0 |  |  |
| 04:00 Volume | 6 | 0 | 58 | 6 | 70 | 0 | 34 | 8 | 0 | 42 | 0 | 0 | 0 | 2 | 2 | 41 | 39 | 0 | 0 | 80 | 194 |
| Peak |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Int. | 04:00 PM |  |  |  |  | 04:00 PM |  |  |  |  | 04:00 PM |  |  |  |  | 04:00 PM |  |  |  |  |  |
| Volume | 6 | 0 | 58 | 6 | 70 | 0 | 34 | 8 | 0 | 42 | 0 | 0 | 0 | 2 | 2 | 41 | 39 | 0 | 0 | 80 |  |
| Peak |  |  |  |  | 0.57 |  |  |  |  | 0.76 |  |  |  |  | 0.25 |  |  |  |  | 0.88 |  |
| Factor |  |  |  |  | 9 |  |  |  |  | 8 |  |  |  |  | 0 |  |  |  |  | 1 |  |



Page 1
Location: KIOWA-BENNETT RD N/O 38TH AVE
City: BENNETT City: BENNETT
County: ADAMS

Direction: NORTHBOUND-SOUTHBOUND


O
Page 1




$$
\begin{aligned}
& \\
& \text { Site Code: } 112610 \\
& \text { Station ID: } 112610
\end{aligned}
$$

## LEVEL OF SERVICE DEFINITIONS

From Highway Capacity Manual, Transportation Research Board, 2010
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)
Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

| LOS | Average Vehicle Control Delay | Operational Characteristics |
| :---: | :---: | :---: |
| A | <10 seconds | Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn. |
| B | 10 to 15 seconds | Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn. |
| C | 15 to 25 seconds | Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane. |
| D | 25 to 35 seconds | This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points. |
| E | 35 to 50 seconds | The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach. |
| F | >50 seconds | The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns. |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | * |  |  | \& |  |  | \& |  |  | \& |  |
| Traffic Vol, veh/h | 1 | 0 | 8 | 0 | 0 | 0 | 5 | 80 | 0 | 0 | 156 | 1 |
| Future Vol, veh/h | 1 | 0 | 8 | 0 | 0 | 0 | 5 | 80 | 0 | 0 | 156 | 1 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control St | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 9 | 0 | 0 | 0 | 6 | 94 | 0 | 0 | 184 | 1 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.4 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | Mr |  | 1 |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 10 | 0 | 85 | 5 | 3 | 185 |
| Future Vol, veh/h | 10 | 0 | 85 | 5 | 3 | 185 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, \# | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 84 | 84 | 84 | 84 | 84 | 84 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 12 | 0 | 101 | 6 | 4 | 220 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.8 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\neq$ | $\uparrow$ |  | Mr |  |
| Traffic Vol, veh/h | 8 | 78 | 190 | 4 | 12 | 4 |
| Future Vol, veh/h | 8 | 78 | 190 | 4 | 12 | 4 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 82 | 82 | 82 | 82 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 95 | 232 | 5 | 15 | 5 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 237 | 0 | - - | 0 | 350 | 235 |
| Stage 1 | - | - | - - | - | 235 | - |
| Stage 2 | - | - | - - | - | 115 | - |
| Critical Hdwy | 4.12 | - | - - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1330 | - | - - | - | 647 | 804 |
| Stage 1 | - | - | - - | - | 804 | - |
| Stage 2 | - | - | - - | - | 910 | - |
| Platoon blocked, \% |  | - | - - | - |  |  |
| Mov Cap-1 Maneuver | 1330 | - | - - | - | 642 | 804 |
| Mov Cap-2 Maneuver | - | - | - - | - | 642 | - |
| Stage 1 | - | - | - - | - | 798 | - |
| Stage 2 | - | - | - - | - | 910 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.7 |  | 0 |  | 10.5 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 1330 | 析 | - | - | 676 |
| HCM Lane V/C Ratio |  | 0.007 | 7 | - | - | 0.029 |
| HCM Control Delay (s) |  | 7.7 | 0 | - | - | 10.5 |
| HCM Lane LOS |  | A | A | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0 | O | - | - | 0.1 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 6 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\mathbf{A}$ | $\mathbf{F}$ |  | $\mathbf{F}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 196 | 73 | 140 | 50 | 14 | 154 |
| Future Vol, veh/h | 196 | 73 | 140 | 50 | 14 | 154 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 67 | 67 | 67 | 67 | 67 | 67 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 293 | 109 | 209 | 75 | 21 | 230 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 284 | 0 | - | 0 | 942 | 247 |  |
| Stage 1 | - | - | - | - | 247 | - |  |
| Stage 2 | - | - | - | - | 695 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1278 | - | - | - | 292 | 792 |  |
| $\quad$ Stage 1 | - | - | - | - | 794 | - |  |
| Stage 2 | - | - | - | - | 495 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1278 | - | - | - | 221 | 792 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 221 | - |  |
| Stage 1 | - | - | - | - | 600 | - |  |
| Stage 2 | - | - | - | - | 495 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 6.3 | 0 | 12.4 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1278 | - | - | - | 221 | 792 |
| HCM Lane V/C Ratio | 0.229 | - | - | -0.095 | 0.29 |  |
| HCM Control Delay (s) | 8.7 | 0 | - | - | 23 | 11.4 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th \%tile Q(veh) | 0.9 | - | - | - | 0.3 | 1.2 |




| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | 1 |  | $\mathbf{T}$ |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 15 | 0 | 185 | 20 | 3 | 105 |
| Future Vol, veh/h | 15 | 0 | 185 | 20 | 3 | 105 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, \# | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 0 | 210 | 23 | 3 | 119 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.1 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\mathbf{- 1}$ | F |  | Mr |  |
| Traffic Vol, veh/h | 6 | 185 | 117 | 4 | 22 | 12 |
| Future Vol, veh/h | 6 | 185 | 117 | 4 | 22 | 12 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 210 | 133 | 5 | 25 | 14 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 138 | 0 | - - | 0 | 360 | 136 |
| Stage 1 | - | - | - - | - | 136 | - |
| Stage 2 | - | - | - - | - | 224 | - |
| Critical Hdwy | 4.12 | - | - - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1446 | - | - - | - | 639 | 913 |
| Stage 1 | - | - | - - | - | 890 | - |
| Stage 2 | - | - | - - | - | 813 | - |
| Platoon blocked, \% |  | - | - - | - |  |  |
| Mov Cap-1 Maneuver | 1446 | - | - - | - | 636 | 913 |
| Mov Cap-2 Maneuver | - | - | - - | - | 636 | - |
| Stage 1 | - | - | - - | - | 886 | - |
| Stage 2 | - | - | - - | - | 813 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.2 |  | 0 |  | 10.3 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 1446 | 析 | - | - | 712 |
| HCM Lane V/C Ratio |  | 0.005 | 5 | - | - | 0.054 |
| HCM Control Delay (s) |  | 7.5 | 0 | - | - | 10.3 |
| HCM Lane LOS |  | A | A | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0 |  | - | - | 0.2 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 4.5 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\mathbf{4}$ | $\mathbf{F}$ |  | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 111 | 171 | 113 | 16 | 20 | 136 |
| Future Vol, veh/h | 111 | 171 | 113 | 16 | 20 | 136 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 150 | 231 | 153 | 22 | 27 | 184 |


| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: |
| Conflicting Flow All | 175 | 0 | - | 0 | 695 | 164 |
| Stage 1 | - | - | - | - | 164 | - |
| $\quad$ Stage 2 | - | - | - | - | 531 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1401 | - | - | - | 408 | 881 |
| $\quad$ Stage 1 | - | - | - | - | 865 | - |
| Stage 2 | - | - | - | - | 590 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1401 | - | - | - | 358 | 881 |
| Mov Cap-2 Maneuver | - | - | - | - | 358 | - |
| Stage 1 | - | - | - | - | 759 | - |
| Stage 2 | - | - | - | - | 590 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 3.1 | 0 | 10.9 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1401 | - | - | - | 358 | 881 |
| HCM Lane V/C Ratio | 0.107 | - | - | -0.075 | 0.209 |  |
| HCM Control Delay (s) | 7.9 | 0 | - | - | 15.9 | 10.2 |
| HCM Lane LOS | A | A | - | - | C | B |
| HCM 95th \%tile Q(veh) | 0.4 | - | - | - | 0.2 | 0.8 |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 1.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | ¢ |  |  | $\uparrow$ |  |  | ¢ |  |  | \$ |  |  |
| Traffic Vol, veh/h | 10 | 1 | 15 | 1 | 1 | 1 | 10 | 90 | 1 | 1 | 175 | 5 |  |
| Future Vol, veh/h | 10 | 1 | 15 | 1 | 1 | 1 | 10 | 90 | 1 | 1 | 175 | 5 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control Star | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |  |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 11 | 1 | 17 | 1 | 1 | 1 | 11 | 102 | 1 | 1 | 199 | 6 |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | $\mathbf{r}$ |  | $\uparrow$ |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 15 | 0 | 95 | 10 | 5 | 185 |
| Future Vol, veh/h | 15 | 0 | 95 | 10 | 5 | 185 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, \# | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 0 | 108 | 11 | 6 | 210 |


| Major/Minor | Minor1 |  | Major1 |  | Major2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 336 | 114 | 0 | 0 | 119 | 0 |
| Stage 1 | 114 | - | - | - | - | - |
| Stage 2 | 222 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 |  | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 659 | 939 | - | - | 1469 | - |
| Stage 1 | 911 | - | - | - | - | - |
| Stage 2 | 815 | - | - | - | - | - |
| Platoon blocked, \% |  |  | - | - |  | - |
| Mov Cap-1 Maneuver | 656 | 939 | - | - | 1469 | - |
| Mov Cap-2 Maneuver | 656 | - | - | - | - | - |
| Stage 1 | 906 | - | - | - | - | - |
| Stage 2 | 815 | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | WB |  | NB |  | SB |  |
| HCM Control Delay, s | 10.6 |  | 0 |  | 0.2 |  |
| HCM LOS | B |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBT | NBRWBLn1 |  | SBL | SBT |
| Capacity (veh/h) |  | - | - | 656 | 1469 | - |
| HCM Lane V/C Ratio |  | - | - | 0.026 | 0.004 | - |
| HCM Control Delay (s) |  | - | - | 10.6 | 7.5 | 0 |
| HCM Lane LOS |  | - | - | B | A | A |
| HCM 95th \%tile Q(veh) |  | - | - | 0.1 | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\mathbf{4}$ | $\mathbf{F}$ |  | Mr |  |
| Traffic Vol, veh/h | 10 | 90 | 195 | 5 | 15 | 5 |
| Future Vol, veh/h | 10 | 90 | 195 | 5 | 15 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 113 | 244 | 6 | 19 | 6 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 250 | 0 | - - | 0 | 386 | 247 |
| Stage 1 | - | - | - - | - | 247 | - |
| Stage 2 | - | - | - - | - | 139 | - |
| Critical Hdwy | 4.12 | - | - - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1316 | - | - - | - | 617 | 792 |
| Stage 1 | - | - | - - | - | 794 | - |
| Stage 2 | - | - | - - | - | 888 | - |
| Platoon blocked, \% |  | - | - - | - |  |  |
| Mov Cap-1 Maneuver | 1316 | - | - - | - | 610 | 792 |
| Mov Cap-2 Maneuver | - | - | - - | - | 610 | - |
| Stage 1 | - | - | - - | - | 785 | - |
| Stage 2 | - | - | - - | - | 888 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.8 |  | 0 |  | 10.8 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 1316 | - | - | - | 647 |
| HCM Lane V/C Ratio |  | 0.009 | - | - | - | 0.039 |
| HCM Control Delay (s) |  | 7.8 | 0 | - | - | 10.8 |
| HCM Lane LOS |  | A | A | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0 | O | - | - | 0.1 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 5.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | 4 | $\mathbf{4}$ | $\mathbf{r}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol, veh/h | 200 | 85 | 145 | 55 | 15 | 160 |
| Future Vol, veh/h | 200 | 85 | 145 | 55 | 15 | 160 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 300 | - | - | 300 | 0 | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 286 | 121 | 207 | 79 | 21 | 229 |


| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 286 | 0 | - | 0 | 900 | 207 |
| Stage 1 | - | - | - | - | 207 | - |
| Stage 2 | - | - | - | - | 693 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1276 | - | - | - | 309 | 833 |
| $\quad$ Stage 1 | - | - | - | - | 828 | - |
| Stage 2 | - | - | - | - | 496 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1276 | - | - | - | 240 | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | 190 | - |
| Stage 1 | - | - | - | - | 643 | - |
| Stage 2 | - | - | - | - | 496 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 6.1 | 0 | 12.2 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1276 | - | - | - | 190 | 833 |
| HCM Lane V/C Ratio | 0.224 | - | - | - | 0.113 | 0.274 |
| HCM Control Delay (s) | 8.6 | - | - | - | 26.3 | 10.9 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th \%tile Q(veh) | 0.9 | - | - | - | 0.4 | 1.1 |




| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | $\mathbf{7}$ | 个 |  |  | A |
| Traffic Vol, veh/h | 0 | 5 | 195 | 0 | 0 | 165 |
| Future Vol, veh/h | 0 | 5 | 195 | 0 | 0 | 165 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, $\#$ | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 222 | 0 | 0 | 188 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | KF |  | 1 |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 20 | 0 | 195 | 25 | 5 | 160 |
| Future Vol, veh/h | 20 | 0 | 195 | 25 | 5 | 160 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, $\#$ | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 23 | 0 | 222 | 28 | 6 | 182 |


| Major/Minor M | Minor1 |  | Major1 |  | Major2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 430 | 236 | 0 | 0 | 250 | 0 |
| Stage 1 | 236 | - | - | - | - | - |
| Stage 2 | 194 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 582 | 803 | - | - | 1316 | - |
| Stage 1 | 803 | - | - | - | - | - |
| Stage 2 | 839 | - | - | - | - | - |
| Platoon blocked, \% |  |  | - | - |  | - |
| Mov Cap-1 Maneuver | 579 | 803 | - | - | 1316 | - |
| Mov Cap-2 Maneuver | 579 | - | - | - | - | - |
| Stage 1 | 799 | - | - | - | - | - |
| Stage 2 | 839 | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | WB |  | NB |  | SB |  |
| HCM Control Delay, s | 11.5 |  | 0 |  | 0.2 |  |
| HCM LOS | B |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBT | NBRWBLn1 |  | SBL | SBT |
| Capacity (veh/h) |  | - | - | 579 | 1316 | - |
| HCM Lane V/C Ratio |  | - | - | 0.039 | 0.004 | - |
| HCM Control Delay (s) |  | - | - | 11.5 | 7.7 | 0 |
| HCM Lane LOS |  | - | - | B | A | A |
| HCM 95th \%tile Q(veh) |  | - | - | 0.1 | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.2 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\neq$ | $\uparrow$ |  | Mr |  |
| Traffic Vol, veh/h | 7 | 195 | 175 | 5 | 25 | 15 |
| Future Vol, veh/h | 7 | 195 | 175 | 5 | 25 | 15 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 229 | 206 | 6 | 29 | 18 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 212 | 0 | - | 0 | 454 | 209 |
| $\quad$ Stage 1 | - | - | - | - | 209 | - |
| Stage 2 | - | - | - | - | 245 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1358 | - | - | - | 564 | 831 |
| $\quad$ Stage 1 | - | - | - | - | 826 | - |
| Stage 2 | - | - | - | - | 796 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1358 | - | - | - | 560 | 831 |
| Mov Cap-2 Maneuver | - | - | - | - | 560 | - |
| Stage 1 | - | - | - | - | 820 | - |
| Stage 2 | - | - | - | - | 796 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0.3 | 0 | 11.1 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1358 | - | - | -638 |
| HCM Lane V/C Ratio | 0.006 | - | - | -0.074 |
| HCM Control Delay (s) | 7.7 | 0 | - | -11.1 |
| HCM Lane LOS | A | A | - | - |
| HCM 95th \%tile Q(veh) | 0 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | F |  |  | - | Mr |  |
| Traffic Vol, veh/h | 28 | 4 | 3 | 21 | 10 | 11 |
| Future Vol, veh/h | 28 | 4 | 3 | 21 | 10 | 11 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 32 | 5 | 3 | 24 | 11 | 13 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\hat{7}$ |  |  | $\mathbf{4}$ | MF |  |
| Traffic Vol, veh/h | 38 | 1 | 9 | 22 | 3 | 29 |
| Future Vol, veh/h | 38 | 1 | 9 | 22 | 3 | 29 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, $\#$ | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 43 | 1 | 10 | 25 | 3 | 33 |


| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 44 | 0 | 89 | 44 |
| Stage 1 | - | - | - | - | 44 | - |
| Stage 2 | - | - | - | - | 45 | - |
| Critical Hdwy | - | - | 4.12 |  | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1564 | - | 912 | 1026 |
| Stage 1 | - | - | - | - | 978 | - |
| Stage 2 | - | - | - | - | 977 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1564 | - | 907 | 1026 |
| Mov Cap-2 Maneuver | - | - | - | - | 907 | - |
| Stage 1 | - | - | - | - | 972 | - |
| Stage 2 | - | - | - | - | 977 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 2.1 |  | 8.7 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 1014 | - | - | 1564 | - |
| HCM Lane V/C Ratio |  | 0.036 | - |  | 0.007 | - |
| HCM Control Delay (s) |  | 8.7 | - | - | 7.3 | 0 |
| HCM Lane LOS |  | A | - | - | A | A |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | Mr |  |
| Traffic Vol, veh/h | 66 | 0 | 7 | 31 | 0 | 3 |
| Future Vol, veh/h | 66 | 0 | 7 | 31 | 0 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 75 | 0 | 8 | 35 | 0 | 3 |



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 2.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \& |  |  | $\leftrightarrow$ |  | ${ }^{1 /}$ | 个 |  | * | $\uparrow$ |  |  |
| Traffic Vol, veh/h | 15 | 1 | 54 | 1 | 1 | 1 | 30 | 95 | 1 | 1 | 178 | 7 |  |
| Future Vol, veh/h | 15 | 1 | 54 | 1 | 1 | 1 | 30 | 95 | 1 | 1 | 178 | 7 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control Stap | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |  |
| Storage Length | - | - | - | - | - | - | 300 | - | - | 50 | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 17 | 1 | 61 | 1 | 1 | 1 | 34 | 108 | 1 | 1 | 202 | 8 |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1 |  |  |  |  |  |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | Mr |  | 1 | 个 | F |  |
| Traffic Vol, veh/h | 5 | 27 | 9 | 120 | 230 | 2 |
| Future Vol, veh/h | 5 | 27 | 9 | 120 | 230 | 2 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 200 | - | - | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 31 | 10 | 136 | 261 | 2 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.7 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | KF |  | 1 |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 17 | 0 | 123 | 13 | 9 | 248 |
| Future Vol, veh/h | 17 | 0 | 123 | 13 | 9 | 248 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | - |
| Veh in Median Storage, $\#$ | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 19 | 0 | 140 | 15 | 10 | 282 |




| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: |
| Conflicting Flow All | 301 | 0 | - | 0 | 516 | 295 |
| Stage 1 | - | - | - | - | 295 | - |
| $\quad$ Stage 2 | - | - | - | - | 221 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1260 | - | - | - | 519 | 744 |
| $\quad$ Stage 1 | - | - | - | - | 755 | - |
| Stage 2 | - | - | - | - | 816 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1260 | - | - | - | 503 | 744 |
| Mov Cap-2 Maneuver | - | - | - | - | 503 | - |
| Stage 1 | - | - | - | - | 732 | - |
| Stage 2 | - | - | - | - | 816 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 1.7 | 0 | 10.7 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1260 | - | - | -085 |  |
| HCM Lane V/C Ratio | 0.031 | - | - | -0.083 |  |
| HCM Control Delay (s) | 7.9 | - | - | -10.7 |  |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | - | 0.3 |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | - | 0 | - | 0 | - | 334 |
| Stage 1 | - | - | - |  | - | - |
| Stage 2 | - | - | - |  | - - | - |
| Critical Hdwy | - | - | - | - | - - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - |  | - - | - |
| Critical Hdwy Stg 2 | - | - | - |  | - - | - |
| Follow-up Hdwy | - | - | - |  |  | 3.318 |
| Pot Cap-1 Maneuver | 0 | - | - |  | 0 | 708 |
| Stage 1 | 0 | - | - |  | 0 | - |
| Stage 2 | 0 | - | - |  | 0 | - |
| Platoon blocked, \% |  | - | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | - |  | - - | 708 |
| Mov Cap-2 Maneuver | - | - | - |  | - - | - |
| Stage 1 |  | - |  |  | - | - |
| Stage 2 | - | - | - |  | - - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0 |  | 0 |  | 10.2 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBT WBT WBR SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | - |  | - 708 |  |
| HCM Lane V/C Ratio |  | - | - |  | 0.022 |  |
| HCM Control Delay (s) |  | - |  |  | 10.2 |  |
| HCM Lane LOS |  | - | - |  | B |  |
| HCM 95th \%tile $Q$ (veh) |  | - | - | - | - 0.1 |  |


|  |  | Intersection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 4.7 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL |  |
| Lane Configurations | ${ }^{7}$ | 4 | 4 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 88 | 140 | 302 | 6 | 20 | 183 |
| Future Vol, veh/h | 88 | 140 | 302 | 6 | 20 | 183 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length 2 | 200 | - | - | 200 | 0 | 100 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 110 | 175 | 378 | 8 | 25 | 229 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 386 | 0 | - | 0 | 773 | 378 |  |
| Stage 1 | - | - | - | - | 378 | - |  |
| Stage 2 | - | - | - | - | 395 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1172 | - | - | - | 367 | 669 |  |
| $\quad$ Stage 1 | - | - | - | - | 693 | - |  |
| Stage 2 | - | - | - | - | 681 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1172 | - | - | - | 333 | 669 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 333 | - |  |
| Stage 1 | - | - | - | - | 628 | - |  |
| Stage 2 | - | - | - | - | 681 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 3.2 | 0 | 13.5 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1172 | - | - | - | 333 | 669 |
| HCM Lane V/C Ratio | 0.094 | - | - | -0.075 | 0.342 |  |
| HCM Control Delay (s) | 8.4 | - | - | - | 16.7 | 13.2 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | - | 0.2 | 1.5 |


|  |  | Intersection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 5.4 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 4 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 200 | 213 | 430 | 55 | 15 | 160 |
| Future Vol, veh/h 200 | 200 | 213 | 430 | 55 | 15 | 160 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length 200 | 200 | - | - | 200 | 0 | 0 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 286 | 304 | 614 | 79 | 21 | 229 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: | :---: |
| Conflicting Flow All | 693 | 0 | - | 0 | 1490 | 614 |  |
| Stage 1 | - | - | - | - | 614 | - |  |
| Stage 2 | - | - | - | - | 876 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 902 | - | - | - | 136 | 492 |  |
| $\quad$ Stage 1 | - | - | - | - | 540 | - |  |
| Stage 2 | - | - | - | - | 407 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 902 | - | - | - | 93 | 492 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 108 | - |  |
| Stage 1 | - | - | - | - | 369 | - |  |
| Stage 2 | - | - | - | - | 407 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 5.2 | 0 | 20.9 |
| HCM LOS |  |  | C |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 902 | - | - | - | 108 | 492 |
| HCM Lane V/C Ratio | 0.317 | - | - | - | 0.198 | 0.465 |
| HCM Control Delay (s) | 10.8 | - | - | - | 46.4 | 18.5 |
| HCM Lane LOS | B | - | - | - | E | C |
| HCM 95th \%tile Q(veh) | 1.4 | - | - | - | 0.7 | 2.4 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\mathbf{- 1}$ | Mr |  |
| Traffic Vol, veh/h | 29 | 14 | 11 | 22 | 10 | 7 |
| Future Vol, veh/h | 29 | 14 | 11 | 22 | 10 | 7 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 16 | 13 | 25 | 11 | 8 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.4 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | - | rin |  |
| Traffic Vol, veh/h | 33 | 3 | 30 | 32 | 2 | 18 |
| Future Vol, veh/h | 33 | 3 | 30 | 32 | 2 | 18 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 3 | 34 | 36 | 2 | 20 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | Mr |  |
| Traffic Vol, veh/h | 50 | 0 | 3 | 62 | 0 | 7 |
| Future Vol, veh/h | 50 | 0 | 3 | 62 | 0 | 7 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 0 | 3 | 70 | 0 | 8 |





| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.9 |  |  |  |  |  |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | r |  | 1 | 4 | $\uparrow$ |  |
| Traffic Vol, veh/h | 3 | 18 | 30 | 248 | 202 | 5 |
| Future Vol, veh/h | 3 | 18 | 30 | 248 | 202 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 200 | - | - | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 20 | 34 | 282 | 230 | 6 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.2 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | $\mathbf{7}$ | 个 |  |  | A |
| Traffic Vol, veh/h | 0 | 9 | 268 | 0 | 0 | 220 |
| Future Vol, veh/h | 0 | 9 | 268 | 0 | 0 | 220 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, $\#$ | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 10 | 305 | 0 | 0 | 250 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.7 |  |  |  |  |  |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | Mr |  | $\mathbf{F}$ |  |  | $\uparrow$ |
| Traffic Vol, veh/h | 25 | 0 | 268 | 29 | 8 | 212 |
| Future Vol, veh/h | 25 | 0 | 268 | 29 | 8 | 212 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, \# | 0 | - | 0 | - | - | 0 |
| Grade, \% | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 28 | 0 | 305 | 33 | 9 | 241 |


| Major/Minor | Minor1 |  | Major1 |  | Major2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 581 | 322 | 0 | 0 | 338 | 0 |
| Stage 1 | 322 | - | - | - | - | - |
| Stage 2 | 259 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 476 | 719 | - | - | 1221 | - |
| Stage 1 | 735 | - | - | - | - | - |
| Stage 2 | 784 | - | - | - | - | - |
| Platoon blocked, \% |  |  | - | - |  | - |
| Mov Cap-1 Maneuver | 472 | 719 | - | - | 1221 | - |
| Mov Cap-2 Maneuver | 472 | - | - | - | - | - |
| Stage 1 | 728 | - | - | - | - | - |
| Stage 2 | 784 | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | WB |  | NB |  | SB |  |
| HCM Control Delay, s | 13.1 |  | 0 |  | 0.3 |  |
| HCM LOS | B |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBT | NBRWBLn1 |  | SBL | SBT |
| Capacity (veh/h) |  | - | - | 472 | 1221 | - |
| HCM Lane V/C Ratio |  | - | - | 0.06 | 0.007 | - |
| HCM Control Delay (s) |  | - | - | 13.1 | 8 | 0 |
| HCM Lane LOS |  | - | - | B | A | A |
| HCM 95th \%tile Q(veh) |  | - | - | 0.2 | 0 | - |


|  |  | Intersection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 3 |  |  |  |  |  |
| Movement E | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{*}$ | 4 | 4 | 「 | * |  |
| Traffic Vol, veh/h 1 | 110 | 267 | 213 | 24 | 30 | 61 |
| Future Vol, veh/h 110 | 110 | 267 | 213 | 24 | 30 | 61 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | , | None |
| Storage Length 200 | 200 | - | - | 200 | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 125 | 303 | 242 | 27 | 34 | 69 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | ---: | :---: |
| Conflicting Flow All | 269 | 0 | - | 0 | 795 | 242 |  |
| Stage 1 | - | - | - | - | 242 | - |  |
| Stage 2 | - | - | - | - | 553 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |
| Pot Cap-1 Maneuver | 1295 | - | - | - | 357 | 797 |  |
| $\quad$ Stage 1 | - | - | - | - | 798 | - |  |
| Stage 2 | - | - | - | - | 576 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1295 | - | - | - | 322 | 797 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 322 | - |  |
| Stage 1 | - | - | - | - | 721 | - |  |
| Stage 2 | - | - | - | - | 576 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 2.4 | 0 | 13.3 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1295 | - | - | -536 |
| HCM Lane V/C Ratio | 0.097 | - | - | -0.193 |
| HCM Control Delay (s) | 8.1 | - | - | -13.3 |
| HCM Lane LOS | A | - | - | - |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 4 | 个 | $\mathbf{F}$ |  | $\mathbf{7}$ |
| Traffic Vol, veh/h | 0 | 377 | 254 | 20 | 0 | 71 |
| Future Vol, veh/h | 0 | 377 | 254 | 20 | 0 | 71 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 200 | - | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 428 | 289 | 23 | 0 | 81 |



| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 5.4 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{*}$ | 4 | 4 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 257 | 337 | 317 | 8 | 40 | 163 |
| Future Vol, veh/h | 257 | 337 | 317 | 8 | 40 | 163 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | 200 | 0 | 100 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 286 | 374 | 352 | 9 | 44 | 181 |


| Major/Minor | Major1 | Major2 |  |  |  |  |  | Minor2 |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 361 | 0 | - | 0 | 1298 | 352 |  |  |  |  |  |
| Stage 1 | - | - | - | - | 352 | - |  |  |  |  |  |
| Stage 2 | - | - | - | - | 946 | - |  |  |  |  |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |  |  |  |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |  |  |  |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |  |  |  |  |
| Follow-up Hdwy | 2.218 | - | - | -3.518 | 3.318 |  |  |  |  |  |  |
| Pot Cap-1 Maneuver | 1198 | - | - | - | 178 | 692 |  |  |  |  |  |
| Stage 1 | - | - | - | - | 712 | - |  |  |  |  |  |
| Stage 2 | - | - | - | - | 377 | - |  |  |  |  |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 1198 | - | - | - | 135 | 692 |  |  |  |  |  |
| Mov Cap-2 Maneuver | - | - | - | - | 135 | - |  |  |  |  |  |
| Stage 1 | - | - | - | - | 542 | - |  |  |  |  |  |
| Stage 2 | - | - | - | - | 377 | - |  |  |  |  |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 3.9 | 0 | 18.3 |
| HCM LOS |  |  | C |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1198 | - | - | - | 135 |
| 692 | 692 |  |  |  |  |
| HCM Lane V/C Ratio | 0.238 | - | - | -0.329 | 0.262 |
| HCM Control Delay (s) | 8.9 | - | - | - | 44.2 |
| HCM Lane LOS | A | - | - | - | E |
| HCM 95th \%tile Q(veh) | 0.9 | - | - | - | 1.3 |






| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.2 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 怍 |  | 1 | 体 | Mr |  |
| Traffic Vol, veh/h | 120 | 15 | 15 | 145 | 15 | 15 |
| Future Vol, veh/h | 120 | 15 | 15 | 145 | 15 | 15 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 200 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 130 | 16 | 16 | 158 | 16 | 16 |


| Major/Minor | Major1 | Major2 |  |  | Minor1 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 0 | 0 | 146 | 0 | 249 | 73 |  |
| Stage 1 | - | - | - | - | 138 | - |  |
| Stage 2 | - | - | - | - | 111 | - |  |
| Critical Hdwy | - | - | 4.14 | - | 6.84 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |  |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 | 3.32 |  |
| Pot Cap-1 Maneuver | - | - | 1434 | - | 718 | 974 |  |
| $\quad$ Stage 1 | - | - | - | - | 874 | - |  |
| Stage 2 | - | - | - | - | 901 | - |  |
| Platoon blocked, \% | - | - |  | - |  |  |  |
| Mov Cap-1 Maneuver | - | - | 1434 | - | 710 | 974 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 710 | - |  |
| Stage 1 | - | - | - | - | 864 | - |  |
| Stage 2 | - | - | - | - | 901 | - |  |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0.7 | 9.6 |
| HCM LOS |  |  | A |


| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 821 | - | -1434 | - |  |
| HCM Lane V/C Ratio | 0.04 | - | -0.011 | - |  |
| HCM Control Delay (s) | 9.6 | - | - | 7.5 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | 0 | - |



| Major/Minor M | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 201 | 0 | 0 | 0 | 305 | 101 |
| Stage 1 | - |  | - | - | 195 | - |
| Stage 2 | - | - | - - | - | 110 | - |
| Critical Hdwy | 4.14 | - | - - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - |  | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - |  | - - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1368 | - | - | - | 663 | 935 |
| Stage 1 | - | - | - - | - | 819 | - |
| Stage 2 | - |  | - - | - | 902 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1368 | - | - | - | 654 | 935 |
| Mov Cap-2 Maneuver | - | - | - | - | 654 | - |
| Stage 1 | - | - | - - | - | 808 | - |
| Stage 2 | - | - | - - | - | 902 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.9 |  | 0 |  | 10.2 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 1368 | - | - | - | 727 |
| HCM Lane V/C Ratio |  | 0.014 | 4 | - | - | 0.052 |
| HCM Control Delay (s) |  | 7.7 | A | - | - | 10.2 |
| HCM Lane LOS |  | A | A | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0 | 0 | - | - | 0.2 |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 7.6 |  |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{*}$ | 44 | 44 | 「 | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 175 | 60 | 60 | 100 | 70 | 120 |
| Future Vol, veh/h | 175 | 60 | 60 | 100 | 70 | 120 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | 200 | 0 | 0 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 250 | 86 | 86 | 143 | 100 | 171 |


| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: |
| Conflicting Flow All | 229 | 0 | - | 0 | 629 | 43 |
| Stage 1 | - | - | - | - | 86 | - |
| Stage 2 | - | - | - | - | 543 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1336 | - | - | - | 414 | 1018 |
| $\quad$ Stage 1 | - | - | - | - | 927 | - |
| Stage 2 | - | - | - | - | 546 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1336 | - | - | - | 337 | 1018 |
| Mov Cap-2 Maneuver | - | - | - | - | 266 | - |
| Stage 1 | - | - | - | - | 754 | - |
| Stage 2 | - | - | - | - | 546 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 6.2 | 0 | 15.6 |
| HCM LOS |  |  | C |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1336 | - | - | - | 266 | 1018 |
| HCM Lane V/C Ratio | 0.187 | - | - | -0.376 | 0.168 |  |
| HCM Control Delay (s) | 8.3 | - | - | - | 26.5 | 9.3 |
| HCM Lane LOS | A | - | - | - | D | A |
| HCM 95th \%tile Q(veh) | 0.7 | - | - | - | 1.7 | 0.6 |






| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 怍 |  | 15 | 体 | Mr |  |
| Traffic Vol, veh/h | 130 | 15 | 15 | 105 | 15 | 15 |
| Future Vol, veh/h | 130 | 15 | 15 | 105 | 15 | 15 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 200 | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 141 | 16 | 16 | 114 | 16 | 16 |


| Major/Minor M | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 157 | 0 | 238 | 79 |
| Stage 1 | - | - | - | - | 149 | - |
| Stage 2 | - | - | - | - | 89 | - |
| Critical Hdwy | - | - | 4.14 | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | - | - | 1420 | - | 729 | 965 |
| Stage 1 | - | - | - | - | 863 | - |
| Stage 2 | - | - | - | - | 924 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1420 | - | 721 | 965 |
| Mov Cap-2 Maneuver | - | - | - | - | 721 | - |
| Stage 1 | - | - | - | - | 854 | - |
| Stage 2 | - | - | - | - | 924 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.9 |  | 9.5 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 825 | - | - | 1420 | - |
| HCM Lane V/C Ratio |  | 0.04 | - | - | 0.011 | - |
| HCM Control Delay (s) |  | 9.5 | - | - | 7.6 | - |
| HCM Lane LOS |  | A | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | 0 | - |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 141 | 0 | - | 0 | 227 | 71 |
| Stage 1 | - | - | - | - | 135 | - |
| Stage 2 | - | - | - | - | 92 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1440 | - | - | - | 741 | 977 |
| Stage 1 | - | - | - | - | 877 | - |
| Stage 2 | - | - | - | - | 921 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1440 | - | - | - | 735 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | 735 | - |
| Stage 1 | - | - | - | - | 870 | - |
| Stage 2 | - | - | - | - | 921 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.6 |  | 0 |  | 9.8 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 1440 | - | - | - | 816 |
| HCM Lane V/C Ratio |  | 0.008 | - | - | - | 0.072 |
| HCM Control Delay (s) |  | 7.5 | - | - | - | 9.8 |
| HCM Lane LOS |  | A | - | - | - | A |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | - | 0.2 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay，s／veh | 5.5 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | 个中 | 个． | $\mathbf{F}$ | $\mathbf{7}$ | $\mathbf{7}$ |
| Traffic Vol，veh／h | 95 | 65 | 80 | 50 | 60 | 115 |
| Future Vol，veh／h | 95 | 65 | 80 | 50 | 60 | 115 |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | 200 | 0 | 0 |
| Veh in Median Storage，\＃ | - | 0 | 0 | - | 0 | - |
| Grade，\％ | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 127 | 87 | 107 | 67 | 80 | 153 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\mathbf{- 1}$ | Mr |  |
| Traffic Vol, veh/h | 43 | 4 | 10 | 32 | 10 | 30 |
| Future Vol, veh/h | 43 | 4 | 10 | 32 | 10 | 30 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 49 | 5 | 11 | 36 | 11 | 34 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\mathbf{7}$ | MF |  |
| Traffic Vol, veh/h | 73 | 1 | 8 | 38 | 3 | 26 |
| Future Vol, veh/h | 73 | 1 | 8 | 38 | 3 | 26 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, $\#$ | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 83 | 1 | 9 | 43 | 3 | 30 |


| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 84 | 0 | 145 | 84 |
| Stage 1 | - | - | - | - | 84 | - |
| Stage 2 | - | - | - | - | 61 | - |
| Critical Hdwy | - | - | 4.12 |  | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1513 | - | 847 | 975 |
| Stage 1 | - | - | - | - | 939 | - |
| Stage 2 | - | - | - | - | 962 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1513 | - | 842 | 975 |
| Mov Cap-2 Maneuver | - | - | - | - | 842 | - |
| Stage 1 | - | - | - | - | 933 | - |
| Stage 2 | - | - | - | - | 962 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 1.3 |  | 8.9 |  |
| HCM LOS |  |  |  |  | A |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | WBL WBT |  |
| Capacity (veh/h) |  | 959 | - | - | 1513 | - |
| HCM Lane V/C Ratio |  | 0.034 | - |  | 0.006 | - |
| HCM Control Delay (s) |  | 8.9 | - | - | 7.4 | 0 |
| HCM Lane LOS |  | A | - | - | A | A |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | 0 | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | -1 | ric |  |
| Traffic Vol, veh/h | 98 | 1 | 6 | 46 | 0 | 3 |
| Future Vol, veh/h | 98 | 1 | 6 | 46 | 0 | 3 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, $\%$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 111 | 1 | 7 | 52 | 0 | 3 |





| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1.6 |  |  |  |  |  |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | MF |  | 1 | 体 | 怍 |  |
| Traffic Vol, veh/h | 5 | 70 | 24 | 176 | 341 | 2 |
| Future Vol, veh/h | 5 | 70 | 24 | 176 | 341 | 2 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 300 | - | - | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 80 | 27 | 200 | 388 | 2 |





| Minor Lane/Major Mvmt | NBL | NBT | NBR EBLn1 EBLn2WBLn1WBLn2 | SBL | SBT | SBR |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1123 | - | - | 278 | 739 | 264 | 387 | 1425 | - |




| Intersection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |  |
| Movement EBL EBT WBT WBR SBL SBR |  |  |  |  |  |  |  |
| Lane Configurations | 1 | 44 | 44 | 「 | * |  |  |
| Traffic Vol, veh/h | 9 | 175 | 208 | 19 | 12 | 5 |  |
| Future Vol, veh/h | 9 | 175 | 208 | 19 | 12 | 5 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Free | Free | Free | Free | Stop | Stop |  |
| RT Channelized | - | None | - | None | - | None |  |
| Storage Length | 300 | - | - | 300 | 0 | - |  |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |  |
| Grade, \% | - | 0 | 0 | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 10 | 190 | 226 | 21 | 13 | 5 |  |



| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay，s／veh | 3.2 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }_{1}$ | 44 | 中4 | 「＇ | ${ }^{1 /}$ | 「 |
| Traffic Vol，veh／h | 41 | 137 | 190 | 23 | 46 | 77 |
| Future Vol，veh／h | 41 | 137 | 190 | 23 | 46 | 77 |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fromer | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | － | None | － | None | － | None |
| Storage Length | 300 | － | － | 300 | 0 | 100 |
| Veh in Median Storage，\＃ | \＃ | 0 | 0 | － | 0 | － |
| Grade，\％ | － | 0 | 0 | － | 0 | － |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 171 | 238 | 29 | 58 | 96 |


| Major／Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Conflicting Flow All | 267 | 0 | - | 0 | 426 | 119 |  |
| Stage 1 | - | - | - | - | 238 | - |  |
| Stage 2 | - | - | - | - | 188 | - |  |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |  |
| Follow－up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |  |
| Pot Cap－1 Maneuver | 1294 | - | - | - | 557 | 910 |  |
| $\quad$ Stage 1 | - | - | - | - | 779 | - |  |
| Stage 2 | - | - | - | - | 825 | - |  |
| Platoon blocked，\％ |  | - | - | - |  |  |  |
| Mov Cap－1 Maneuver | 1294 | - | - | - | 535 | 910 |  |
| Mov Cap－2 Maneuver | - | - | - | - | 535 | - |  |
| Stage 1 | - | - | - | - | 749 | - |  |
| Stage 2 | - | - | - | - | 825 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay，s | 1.8 | 0 | 10.6 |
| HCM LOS |  |  | B |


| Minor Lane／Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity（veh／h） | 1294 | - | - | - | 535 | 910 |
| HCM Lane V／C Ratio | 0.04 | - | - | - | 0.107 | 0.106 |
| HCM Control Delay（s） | 7.9 | - | - | - | 12.5 | 9.4 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th \％tile Q（veh） | 0.1 | - | - | - | 0.4 | 0.4 |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay，s／veh | 6.4 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | 个4 | 个中 | $\mathbf{7}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol，veh／h | 175 | 108 | 167 | 100 | 70 | 120 |
| Future Vol，veh／h | 175 | 108 | 167 | 100 | 70 | 120 |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 300 | - | - | 300 | 0 | 100 |
| Veh in Median Storage，\＃ | - | 0 | 0 | - | 0 | - |
| Grade，\％ | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 250 | 154 | 239 | 143 | 100 | 171 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\mathbf{- 1}$ | Mr |  |
| Traffic Vol, veh/h | 44 | 14 | 33 | 32 | 10 | 19 |
| Future Vol, veh/h | 44 | 14 | 33 | 32 | 10 | 19 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 50 | 16 | 38 | 36 | 11 | 22 |



| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 2 |  |  |  |  |  |
| Movement E | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | * |  |
| Traffic Vol, veh/h | 60 | 3 | 26 | 63 | 2 | 15 |
| Future Vol, veh/h | 60 | 3 | 26 | 63 | 2 | 15 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | \# 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 68 | 3 | 30 | 72 | 2 | 17 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | -1 | Mr |  |
| Traffic Vol, veh/h | 76 | 0 | 3 | 89 | 1 | 6 |
| Future Vol, veh/h | 76 | 0 | 3 | 89 | 1 | 6 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 0 | 3 | 101 | 1 | 7 |












| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 264 | 0 | - | 0 | 373 | 100 |
| Stage 1 | - | - | - | - | 200 | - |
| Stage 2 | - | - | - | - | 173 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1297 | - | - | - | 601 | 936 |
| $\quad$ Stage 1 | - | - | - | - | 814 | - |
| Stage 2 | - | - | - | - | 840 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1297 | - | - | - | 588 | 936 |
| Mov Cap-2 Maneuver | - | - | - | - | 588 | - |
| Stage 1 | - | - | - | - | 796 | - |
| Stage 2 | - | - | - | - | 840 | - |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0.9 | 0 | 11.4 |
| HCM LOS |  |  | B |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1297 | - | - | -665 |
| HCM Lane V/C Ratio | 0.023 | - | - | -0.152 |
| HCM Control Delay (s) | 7.8 | - | - | -11.4 |
| HCM Lane LOS | A | - | - | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | - |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay，s／veh | 3.8 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | $\mathbf{1}$ | 个4 | 个中 | $\mathbf{7}$ | $\mathbf{1}$ | $\mathbf{7}$ |
| Traffic Vol，veh／h | 94 | 179 | 163 | 50 | 61 | 76 |
| Future Vol，veh／h | 94 | 179 | 163 | 50 | 61 | 76 |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 300 | - | - | 300 | 0 | 100 |
| Veh in Median Storage，\＃ | - | 0 | 0 | - | 0 | - |
| Grade，\％ | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 111 | 211 | 192 | 59 | 72 | 89 |



|  | Intersection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 4.2 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ${ }^{7}$ | 44 | 44 | F | ${ }^{7}$ | 「 |
| Traffic Vol, veh/h | 95 | 160 | 189 | 50 | 60 | 115 |
| Future Vol, veh/h | 95 | 160 | 189 | 50 | 60 | 115 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control Fr | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length 3 | 300 | - | - | 300 | 0 | 100 |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 127 | 213 | 252 | 67 | 80 | 153 |


| Major/Minor | Major1 | Major2 |  | Minor2 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Conflicting Flow All | 319 | 0 | - | 0 | 613 | 126 |
| $\quad$ Stage 1 | - | - | - | - | 252 | - |
| $\quad$ Stage 2 | - | - | - | - | 361 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | 1238 | - | - | - | 424 | 901 |
| $\quad$ Stage 1 | - | - | - | - | 767 | - |
| $\quad$ Stage 2 | - | - | - | - | 676 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 1238 | - | - | - | 380 | 901 |
| Mov Cap-2 Maneuver | - | - | - | - | 447 | - |
| $\quad$ Stage 1 | - | - | - | - | 688 | - |
| $\quad$ Stage 2 | - | - | - | - | 676 | - |
|  |  |  |  |  |  |  |
| Approach | EB | WB | SB |  |  |  |
| HCM Control Delay, s | 3.1 | 0 | 11.5 |  |  |  |

HCM LOS B

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1238 | - | - | - | 447 |
| 901 |  |  |  |  |  |
| HCM Lane V/C Ratio | 0.102 | - | - | -0.179 | 0.17 |
| HCM Control Delay (s) | 8.2 | - | - | - | 14.8 |
| 9.8 |  |  |  |  |  |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | - | 0.6 |

## BENNETT PLANNING AND ZONING COMMISSION

RESOLUTION NO. 2022-03

## A RESOLUTION RECOMMENDING APPROVAL OF A FINAL PLAT FOR BENNETT RANCH FILING NO. 2

WHEREAS, there has been submitted to the Planning and Zoning Commission of the Town of Bennett a request for approval of a Final Plat for Bennett Ranch Filing No. 2; and

WHEREAS, all materials related to the proposed Final Plat have been reviewed by Town Staff and found with conditions to be in compliance with Town of Bennett subdivision and zoning ordinances; and

WHEREAS, after a noticed public hearing, at which evidence and testimony were entered into the record, the Planning and Zoning Commission finds that the proposed Final Plat should be approved subject to certain conditions.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF BENNETT, COLORADO:

Section 1. The Planning and Zoning Commission hereby recommends approval of the proposed Final Plat for Bennett Ranch Filing No. 2, subject to the conditions set forth on Exhibit A, attached hereto and incorporated herein by reference.

PASSED AND ADOPTED this 24th DAY OF JANUARY 2022.

## Chairperson

## ATTEST:

Christina Hart, Town Clerk

## EXHIBIT A

## Bennett Ranch Filing No. 2 Final Plat Conditions of Approval

Before recording the final plat, the applicant shall:

1. update plat notes related to easements and maintenance in a manner directed by the Town Engineer
2. make other minor modifications as directed by Town Staff, Engineer and Town Attorney.

## Suggested Motion

I move to approve Resolution No. 2022-03 - A resolution recommending approval of a final plat for Bennett Ranch Filing No. 2:

1. update plat notes related to easements and maintenance in a manner directed by the Town Engineer
2. make other minor modifications as directed by Town Staff, Engineer and Town Attorney

## Public Hearing Script <br> Planning \& Zoning Commission

CHAIR: I will next call the matter of proposed amendments to Chapter 16 of the Bennett Municipal Code to order. This is a public hearing concerning requirements for fair contributions for public school sites by either dedication of land or cash in lieu.

CHAIR: Ms. Hart, for the record, please state whether this hearing has been properly noticed.

## [Town Clerk to confirm on record notice has been provided]

CHAIR: Is there a staff presentation on this matter?
[Staff presentation/information]
CHAIR: This is a public hearing. Please keep public comment to the issues before the Commission. If you wish to speak please write your name and address in the chat box and you will be called on. We will allow people who signed up to speak for up to 3 minutes each. Please DO NOT REPEAT points made by others. It is fine to say, "I agree with the Previous speaker's comments". Please direct your comments to the Commission, not to Town staff.

CHAIR: Is there anyone here who wishes to speak on this issue?

## [Public comment]

CHAIR: If there is no more public comment I will now close the public comment portion of the public hearing. We will now proceed to Planning Commission discussion. Are there any questions from the Commissioners, or any discussion of the Commissioners?

Who would like to begin?
Who is next?
Any other questions or comments?
CHAIR: We have a draft resolution in front of us and I would entertain a motion.
CHAIR: We have a motion on the floor by Commissioner $\qquad$ and a second by Commissioner $\qquad$ to approve Planning and Zoning Commission Resolution No. 2022-04.

May we have a Roll-Call vote?
Motion carries/fails.

TO: Town of Bennett Planning and Zoning Commission
FROM: Melinda Culley, Town Attorney
DATE: January 24, 2022
SUBJECT: A Resolution Recommending Approval of an Ordinance Amending Chapter 16 of the Bennett Municipal Code Concerning Fair Contributions for Public School Sites

## Background

The attached ordinance implements the provisions of the Intergovernmental Agreement Concerning Land Dedications or Payments In Lieu for School Purposes (the "IGA"), which was recently approved by the Board of Trustees. Specifically, this ordinance:

- Amends and updates the requirements for land dedication for public school sites or payments in lieu of land dedication ("fair contributions for public school sites").
- States that the amount of amount land or payment in lieu required shall be determined in accordance with the IGA. This allows the Board and School District to make changes to the methodology for determining fair contribution for public school sites in the future without having to amend the Town Code again.
- Exempts certain properties/uses from having to comply with the fair contributions for public school sites requirements, including:
- Age restricted housing
- Limited term stay housing
- Long term assisted living facilities
- Alteration/replacement/expansion of a legally existing building that does not increase the number of dwelling units
- Sets forth the requirements for land dedication, including requiring the developer to provide a site that has direct access to an improved street, utilities stubbed to the site, and overlot grading.
- Repeals and reenacts Section 16-5-510 of the Town Code to create a separate section for the Town's public land dedication requirements. This just moves those requirements into their own section (separate from the school dedication requirements), but doesn't make any other changes to the public land dedication requirements.


## Staff Recommendation

Staff recommends the Planning and Zoning Commission approve Resolution No. 2022-04 recommending approval of an ordinance amending Chapter 16 of the Bennett Municipal Code concerning fair contributions for public school sites.

## Attachments

1. Staff PowerPoint Presentation
2. Approved Intergovernmental Agreement (IGA)
3. Draft Ordinance No. 735-22
4. Draft Resolution No. 2022-04

# Chapter 16 Amendment School Land Dedication 

Planning and Zoning Commission

January 24, 2022

Steve Hebert, Planning \& Economic Development Manager

## Ordinance 735-22

- An ordinance amending Chapter 16 of the Bennett Municipal Code concerning fair contributions for public school sites.
- The Town of Bennett and the Bennett School District 29J Board recently approved an Intergovernmental Agreement (IGA) Concerning Land Dedications or Payments In Lieu for School Purposes


## Ordinance 735-22

- Amends the municipal code to conform to the recently adopted IGA
- Adopted by the Bennett School District Board on December 16, 2021
- Adopted by the Town of

Bennett school, town pact nears fruition Bennett Board of Trustees on January 11, 2022

# Town of Bennett and Bennett School District No. 29J Intergovernmental Agreement (IGA) 

## Intergovernmental Agreement (IGA) Concerning Land Dedications or Payments In Lieu for School Purposes

The methodology for determining the fair contribution for public school sites has been updated to require per dwelling unit (DU):

Single Family Detached - 0.0162 acres or $\$ 2,079.09$
Single Family Attached - 0.0075 acres or $\$ 964.84$
Multi-family - 0.0038 acres or $\$ 482.42$
In deciding whether land or payment in lieu of land will be required, the School District will consult the School Site Zone map, school acreage requirements and the Town's Comprehensive Plan.

If land is to be dedicated, the developer is responsible for providing a site that has direct access to an improved street, utilities stubbed to the site, and overlot grading.

If a fee-in-lieu is required, the fees will be collected at the time of building permit for no fewer than 50 units at a time.

## Section 16-5-520

- For all subdivisions of land, the subdivider shall dedicate land for a public school site to the Bennett School District No. 29J (the "School District"). In the event the dedication of land is not in the best interest of the School District, the subdivider shall make a payment in lieu of land dedication or a combination of land dedication and an in-lieu payment.
- The amount of such contribution of either land or payment in lieu of land (the "fair contribution for public school sites") shall be determined in accordance with the provisions of the Intergovernmental Agreement Concerning Land Dedications or Payments in Lieu for School Purposes between the Town and School District, as may be amended from time to time.


## Section 16-5-520

- Arrangements have been made such that at the appropriate time, and not later than the issuance of the first residential building permit for the subdivision, the subdivider shall either provide or pay the costs associated with ensuring that the school site has direct access to a publicly dedicated street improved to Town standards, utilities (including water, sewer, storm sewer, electric, natural gas and telecommunications) stubbed to the school site, and overlot grading of the school site, which shall include mass grading but not final/fine grading.


## Staff Recommendation

Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-04 recommending approval of Ordinance No. 73522, an ordinance amending Chapter 16 of the Bennett Municipal Code concerning fair contributions for public school sites.

# INTERGOVERNMENTAL AGREEMENT CONCERNING LAND DEDICATIONS OR PAYMENTS IN LIEU FOR SCHOOL PURPOSES 

THIS INTERGOVERNMENTAL AGREEMENT CONCERNING LAND DEDICATIONS OR PAYMENTS IN LIEU FOR SCHOOL PURPOSES ("Agreement") is entered into by and between the Town of Bennett, a municipal corporation ("Town"), and Bennett School District No. 29-J, a political subdivision of the State of Colorado ("School District"), to be effective as of the 11th day of January, 2022 ("Effective Date").

## RECITALS

A. Local governments are encouraged and authorized to cooperate or contract with other units of government, pursuant to C.R.S. § 29-20-105, for the purpose of planning or regulating the development of land within both jurisdictions, including, but not limited to, the joint exercise of planning, zoning, subdivision, building and related regulations.
B. Pursuant to sections 31-23-301 and -303, C.R.S., the Town is furthermore authorized to regulate and restrict the density of population of the Town for the purpose of promoting health, safety, morals, and general welfare of the community; and to adopt regulations in accordance with the comprehensive plan to facilitate the adequate provision of schools.
C. Growth in residential land development necessitates the building of additional public school facilities and making improvements to existing school facilities in order to accommodate the corresponding increases in the student population. The dedication and conveyance of land for public school sites or payments in lieu thereof (hereinafter referred to as "inlieu payments") (land dedication or in-lieu payments are sometimes hereinafter collectively referred to as "Fair Contribution for Public School Sites") will help to meet such demand.
D. In order to provide adequate public school facilities to serve new residential land developments, it is appropriate that the School District and Town cooperate in the negotiation process between the Town and developers seeking annexation or subdivision of land that is annexed or developed after the Effective Date regarding Fair Contribution for Public School Sites.
E. Requiring Fair Contribution for Public School Sites implements the Town's goals and policies to provide for public improvements in a manner appropriate for a modern, efficiently functioning Town, and to ensure that new development does not negatively impact the provision of municipal services.
F. There is an essential nexus between the need for the Fair Contribution for Public School Sites and the legitimate local governmental interest of promoting and preserving the public health, safety, and welfare of the citizens of the Town and the School District.
G. It is a reasonable exercise of the power of the Town to require Fair Contribution for Public School Sites so that new residential developments bear a proportionate share of the cost of
public school site acquisitions that are necessary to provide educational opportunities for the estimated new students generated by new residential developments.
H. The Town and School District, upon consideration of the effect of residential land development on the ability of the School District to provide public school facilities in the Town, agree that it is in the best interests of the citizens of the Town to enter into an intergovernmental agreement for the purposes of providing for the Fair Contribution for Public School Sites, as provided for in this Agreement.
I. The Town and School District desire to hereby define the rights and obligations of each entity with respect to the planning, collection, and use of Fair Contribution for Public School Sites.

## AGREEMENT

NOW THEREFORE, in consideration of the objectives and policies expressed in the Recitals to this Agreement and the mutual promises contained in this Agreement, the Town and School District agree as follows:

1. Definitions. Capitalized terms used herein and not otherwise defined have the meanings specified below:
"Developer" means the person or entity seeking land-use approval from the Town and the party responsible for land dedication or in-lieu payments hereunder.
"Dwelling Unit" means a housekeeping unit designed and used for occupancy by a single individual or a family, containing cooking, living, sleeping, and sanitary facilities and having a separate entrance. For purpose of this Agreement, Dwelling Units are categorized as Single Family Detached, Single Family Attached; and Multi-family.
"Land Development Project" or "Project" means any proposed annexation, subdivision approval or any subsequent amendment to a previously approved development proposal that will result in new or additional Dwelling Units or a population density or population greater than that contemplated by the previously approved development proposal.
"Methodology" means the formulas, based upon the School Planning Standards, for calculating the Fair Contribution for Public School Sites, as set forth in Exhibit A.
"Multi-family" means:
2. Buildings that contain three or more Dwelling Units that:
a. Are accessed by from interior elevators or hallways, or from individual exterior entrances; and
b. Are separated by interior walls and/or floors.
3. Multi-family does not include boarding houses, dormitories, fraternities, sororities, bed and breakfast establishments, Single Family Attached, or hotels and motels.
"School Facility" means any building, structure or appurtenant facility, whether combined in a single structure or separate structures, that is required in the judgment of the School District Board of Education for the provision of K-12 educational services within the School District, including, without limitation, any classroom building, administrative office building, transportation center, athletic field and/or structure, stadium, indoor pool, maintenance building, teacherage and other employee housing and/or training facility.
"School Planning Standards" means the adopted School District planning standards set forth in Exhibit A, which establish school facility enrollment capacities, School Site Acreage Requirements, student yields per category of Dwelling Unit for each of the three school levels (elementary, middle and secondary or high), and the estimated fair market value of real property that is located within the boundaries of both the Town and the School District.
"School Site" means a tract or parcel of land dedicated by express language in the final plat of a Project for the construction or expansion of School Facilities.
"School Site Acreage Requirements" means the minimum acreage needed for each School Site for each of the three separate school levels. The School Site Acreage Requirements are set forth in Exhibit A attached hereto and incorporated herein by reference.
"School Site Zone Map" means a conceptual planning document adopted by the School District that identifies general locations of existing and proposed School Sites and School Facilities within the boundaries of the School District and the Town or neighboring jurisdictions.
"Single Family Attached" means:
4. Two or more Dwelling Units that are designed so that individual units have individual ground-floor access and are separated from each other by unpierced common walls from foundation to roof (e.g., side-by-side duplexes and all types of townhomes); or
5. Two Dwelling Units that are designed so that individual units:
a. May or may not have individual exterior doors, but provide no direct access between the first floor and second floor unit (access may be through a common interior foyer that provides access to both units or through separate exterior doors); and
b. Are separated from each other by a floor (e.g., over-under duplexes).
"Single Family Detached" means Dwelling Units that are:
6. Located in individual buildings;
7. Separated from each other by outside walls; and
8. Intended for the use of a single housekeeping unit.
"Town Code" means the Town of Bennett Municipal Code, as amended.

## 2. School Site Coordination and Development Referrals

A. The Town shall refer to the School District all Land Development Project petitions or applications that require a public hearing before the Planning Commission and/or the Board of Trustees for the School District's review and comment concerning the adequacy of School Sites and School Facilities to provide adequate educational opportunities for students in response to the Land Development Project. The School District shall make the determination, as further specified hereinbelow in Paragraph 4, concerning the effect a Land Development Project will have on the School District's ability to provide adequate School Sites and School Facilities based on the Methodology in effect at the time the Developer's proposal is submitted by the Town to the School District for its review and, to the extent permitted by law, the Town shall implement said determination consistent with this Agreement and the Town Code and regulations then in effect. Town staff shall endeavor to invite School District representatives to its Design Review Committee meetings when Developers are proposing residential development with specific densities and types of units.
B. If a non-residential Land Development Project application is filed with the Town but that, in the opinion of the Town, may influence or affect property owned by or activities of the School District, the Town shall also refer information pertaining to said application to the School District for review and comment in accordance with the procedures contemplated herein.
C. The School District agrees to promptly review the referred Land Development Project petition or application and promptly submit its comments, recommendations, and requests to the Town by the deadline stated in any cover letter or referral letter accompanying the petition or application from the Town to the School District. Failure to timely respond may be deemed by the Town as a response from the School District of "no comment" concerning the referred petition or application.
D. The parties acknowledge the School District is currently preparing a School Site Zone Map, which is intended to provide information on the general locations of future school sites and shall assist the School District in determining whether the Fair Contribution for Public School Sites should be in the form of land dedication or in-lieu payments. At the time of execution hereof, the School District shall submit the proposed School Site Zone Map to the Town and shall consider any issue(s) raised by the Town prior to final adoption of the map. The School Site Zone Map shall be reviewed by the School District no less than every four (4) years,
and the School District agrees to submit proposed revisions to the School Site Zone Map to the Town and shall consider any issue(s) raised by the Town prior to final adoption of the revisions.
E. The School District agrees to locate future School Sites in conformity with the then current School Site Zone Map and the comprehensive plan of the Town, insofar as is feasible. The School District shall consult with the Town on a site specific, case-by-case basis as needed in the School District's sole discretion and shall advise the Town in writing in advance of acquiring any land in the Town for a School Site or commencing construction of any improvements on a School Site located in the Town. The School District shall submit to the Town an advisory site plan detailing the proposed construction of any School Facility and shall consider any issue(s) raised by the Town.

## 3. Methodology

A. The Town agrees to require Fair Contribution for Public School Site as a precondition to final approval of the lawfully authorized Dwelling Units not otherwise exempted under Paragraph 6 below or the Town Code as proposed in the Land Development Project.
B. For purposes of this Agreement, the parties have adopted the Methodology to determine Fair Contribution for Public School Sites for each of the three categories of Dwelling Units (Single Family Detached, Single Family Attached, and Multi-family) sufficient to provide adequate educational opportunities to new residential developments. The parties agree that the Methodology, attached and incorporated herein as Exhibit A, and as amended from time to time as provided in this Agreement, has been developed in a manner so as to fairly apportion the cost of acquiring School Sites made necessary by a Land Development Project and to ensure that any inlieu payments will be used as provided in Section 5 below.
C. Unless and until modified by the parties, the Methodology and its supplementary background materials shall include, but not be limited to, the following factors:
(1) School Planning Standards adopted by the School District;
(2) The capacity demand of each category of School Facility resulting from each category of Dwelling Unit;
(3) The means for determining the per-acre fair market value of real property that is located within the boundaries of both the Town and the School District; and
(4) The procedure for calculating the Fair Contribution for Public School Site sufficient to provide educational opportunities for students in response to the proposed Land Development Project or the combination of land dedication and conveyance and in-lieu payments, required per Dwelling Unit.
D. The Town and School District agree that the Methodology and School Planning Standards shall be reviewed every four (4) years or earlier upon the request of either party due to a change in the standards and conditions within the School District. The Methodology and School Planning Standards may be revised by the mutual consent of the Town and the School District to reflect the current standards and conditions within the School District. The Town shall hold a public hearing before revising the Methodology. The exhibit adopted pursuant to the provisions of this Agreement shall be updated at such time to reflect changes agreed upon by the parties. The School District shall furnish a copy of any updated School Planning Standards it develops to the Town prior to adoption by the School District.
E. It is the intent of the parties that the Methodology and any amendment thereto, and application of the Methodology, shall be in conformity with the requirements of Section 29-20-203, C.R.S.

## 4. Determination of Land Dedication or In-Lieu Payment Requirements

A. As a condition of approval of any Land Development Project, the Developer's Land Development Project application or petition shall dedicate and provide for the conveyance of land for a School Site to the School District or, in the event the proposed dedication of land is inconsistent with the provisions of the School Site Zone Map, the Town's comprehensive plan or the School Site Acreage Requirements as determined by the Superintendent or designee or that the parties agree is not otherwise in the best interests of the School District, the School District may require a payment in lieu of land dedication or a combination of land dedication and an in-lieu payment.
B. The manner and amount of either type of land dedication or in-lieu payment thereof shall be based on the application of the School Planning Standards and Methodology in effect at the time the Developer applies for any Land Development Project. Nothing provided herein shall preclude the School District and any Developer from mutually agreeing to resolve the issue of Fair Contribution for Public School Sites in a manner other than as stated above.
C. If land is to be dedicated to the School District as part of the approval of any Land Development Project, the Town agrees before recording of the final plat for the Land Development Project, or any portion of it, to require proof that the dedication and conveyance or appropriate reservation of land for future dedication to the School District in accordance with Paragraph 4(E), has been made to the School District in accordance with the following requirements:
(1) The Developer has conveyed or agreed to convey to the School District by general warranty deed, title to the land slated for dedication, which title is to be free and clear of all items, encumbrances, and exceptions (except those approved in writing by the School District), including, without limitation, real property taxes, which will be prorated to the date of conveyance or dedication provided, however, if the Developer holds title to the land to be conveyed as a school site by special warranty deed, then conveyance to the

School District shall be by special warranty deed. Dedication and conveyance shall occur no later than, or contemporaneously with, the recording of the final plat for the subdivision. If requested by the School District, the Developer shall also enter into a contract with the School District for the sale of real property, which contract shall require the Developer to provide title insurance for the property; a land survey plat of the property; representations and warranties concerning hazardous materials on the property; and contain any other terms agreed upon between the School District and the Developer dedicating and conveying the property.
(2) At the time of dedication or conveyance, the Developer shall provide a title insurance commitment and policy in an amount equal to the fair market value of the dedicated property.
(3) At the appropriate time, not later than issuance of the first residential building permit for the Land Development Project, the Developer shall either provide or pay the costs associated with ensuring that the School Site has direct access to a publicly dedicated street improved to Town standards, utilities (including water, sewer, storm sewer, electric, natural gas and telecommunications) stubbed to the School Site, and overlot grading of the School Site, which shall include mass grading but not final/fine grading; all of which costs have been considered and included in the determination of the Developed Land Value in accordance with Exhibit A for those Developers who make inlieu payments.
(4) The School District shall at no expense to the Town maintain all lands dedicated to the School District, including without limitation mowing in conformance with Town ordinances and regulations. Notwithstanding the foregoing, the School District and the Town may by separate joint use agreement mutually agree to allow for the development and use of the dedication land for park or recreational uses by the Town until commencement of construction of improvements on said land.
D. If land is to be reserved for future dedication to the School District as part of the approval of any Land Development Project, the Town shall thereafter accept the final plat for the Land Development Project, or any portion of it, for recording only if such plat shows the reservation of such land for such future dedication to the School District. Dedication of the reserved site shall occur no later than the date of final approval of the Land Development Project that includes the reserved site. The School District shall promptly certify to the Town in writing that the dedication has been made. In the event a final plat is approved without dedication of land, any future filings within the Project may be withheld until the dedication is complete. In the event that the School District determines, in its sole discretion, that the dedication of a reserved site is necessary prior to the issuance of any building permit for the Project within which such site is located, the School District shall so notify the person(s) shown by the records of the Adams or Arapahoe County Assessor as being the then-current owner(s) of such site. Said notice shall be sent by certified mail, return receipt requested. Within sixty (60) days of the mailing of said notice, the reserved property that is the subject of the mailing shall be dedicated to the

School District by the owner(s) thereof, as a condition of the Town's final approval of the Land Development Project.
E. Nothing contained in this Agreement shall preclude the School District from commenting to the Town upon the adequacy of School Sites or School Facilities, necessary in its judgment, to serve the Land Development Project.

## 5. Collection, Deposit and Expenditure of In-Lieu Payments

A. If the Fair Contribution for Public School Sites includes payment in lieu of dedication of land, then at the time of application for a building permit, the Developer shall make in-lieu payments to the School District calculated in accordance with the then current Methodology for each Dwelling Unit subject to the pending building permit application but no fewer than the required in-lieu payment amount for fifty (50) Dwelling Units. If the Land Development Project includes fewer than fifty (50) Dwelling Units, then the full in-lieu payment for all Dwelling Units in the Project shall be paid at the time of the first building permit. It is contemplated that the Developer's last in-lieu payment for the total Land Development Project approved by the Town may include fewer than fifty (50) Dwelling Units, in which case, Developer's final in-lieu payment will be the required in-lieu payment amount for the remaining Dwelling Units subject to the Land Development Project. If future adjustments or modifications to the Project result in a reduction in the number of Dwelling Units as proposed in the Land Development Project, then the School District shall have no obligation to, except as otherwise provided herein, refund in-lieu payments previously paid by the Developer. Before issuing a building permit for any Dwelling Unit not otherwise exempt pursuant to Paragraph 6, the Town shall require evidence that the Fair Contribution for Public School Sites has been received by the School District. The Superintendent of the School District, or the Superintendent's designee, shall provide such evidence in a timely manner to the Town Manager or the Town Manager's designee. In the event a building permit is inadvertently issued without the payment of any inlieu fees, any future building permits for Dwelling Units within the Project or future filings of the Developer within the Project may be withheld until the delinquent fee is paid. All in-lieu payments shall be paid to the order of the School District and promptly deposited into an appropriate interest-bearing account authorized by Colorado Revised Statutes sections 24-75-601 to 605, which account is established, held and owned by the School District. Fair Contributions for Public School Sites shall not constitute revenue of the Town under the provisions of Article X, Section 20 of the Colorado Constitution.
B. The in-lieu payments deposited into the account and all funds the School District may receive from the sale of land dedicated or conveyed as a School Site shall be earmarked and expended solely for acquisition, development, or expansion of School Sites or for capital facilities planning, site acquisition, or capital outlay purposes for School Facilities within the senior high school feeder attendance area boundaries that include the property for which the contribution was paid. Subject to the limitations of this Agreement, the time for, nature, method, and extent of such planning, acquisition, development, or outlay shall be at the discretion of the School District.
C. Except as otherwise provided in this IGA, any in-lieu payments the District has not used for acquisition or development of public school sites within twenty (20) years of the date of the Developer's final in-lieu payment for the Land Development Project shall be tendered for refund, with interest earned and credited according to C.R.S. § 29-1-801 to -803, to the person or entity who made the Fair Contribution for Public School Sites. This does not pertain to the dedication of land. The School District shall give notice by first-class mail to the person who made the Fair Contribution for Public School Sites at their address as reflected in the records maintained by the School District. If the person does not file with the School District a written claim for refund of the funds within ninety (90) days of the mailing of such notice, the Fair Contribution for Public School Sites refund shall be forfeited and revert to the School District to be utilized for capital facilities that will benefit the senior high school feeder attendance area boundaries that include the property for which the Fair Contribution for Public School Sites funds were paid. The School District may request the Town extend the 20 -year time period. The Town shall consider any such request at a public hearing, following which the Town may, for good cause shown, extend such period of time as the Town deems reasonable and necessary in accordance with the School Site Zone Map and the Town's comprehensive plan.

## 6. Exemptions from Fair Contribution for Public School Sites

A. The following uses within the Town's boundaries shall be exempted from requirements of Fair Contribution for Public School Sites:
(1) Construction of any non-residential building or structure, except as otherwise provided herein;
(2) Alteration, replacement, or expansion of any legally existing building or structure which does not increase the number of Dwelling Units;
(3) Construction of any building or structure for limited term stay or for longterm assisted living, including, but not limited to, bed and breakfast establishments, adult boarding or rooming houses, family-care homes, group-care homes, halfway houses, hotels, motels, nursing homes, or hospices; and
(4) Construction of any residential developments that are subject to recorded covenants acceptable to the Town in consultation with the School District restricting the age of the residents of said Dwelling Units such that said Dwelling Units may be classified as "housing for older persons," pursuant to the Federal Fair Housing Amendments Act of 1988, as amended.
B. Any claim of exemption as provided in this Section 6 must be made no later than the time of application for the Project. Any claim not so made may be deemed waived by the Developer.

## 7. Annual Report, Accounting and Audit

A. The School District shall submit an annual report on or before September 1 of each year to the Town describing the School District's collection and use of in-lieu payments during the preceding fiscal year. This report shall include:
(1) A review of the assumptions and data upon which the Methodology is based, including student generation ratios and attendance area boundaries;
(2) Statutory changes or changes in the Methodology, including the School Planning Standards, and School District policies related to acquisition or construction of school sites and facilities; and
(3) Any recommended modifications to the land dedication and in-lieu payment schedule.
B. After receipt of the report, the Town shall review it, consider those matters listed in the previous subsection, and shall complete its review within sixty (60) days of receipt.
C. The School District shall establish and maintain a separate accounting system to ensure that all in-lieu payments are expended in accordance with the Agreement.
D. The School District shall cause an audit to be performed annually of the in-lieu payments received, used, or expended under this Agreement. The audit shall be conducted according to the generally accepted accounting principles for government entities. A copy of said audit shall be furnished to the Town. The cost of the audit shall be paid for by the School District.
E. At any time the Town deems necessary, the School District shall honor the Town's request for an accounting to be completed by the chief financial officer of the School District concerning the School District's use of the in-lieu payments.

## 8. Term of Agreement

The term of this Agreement shall commence on the Effective Date and shall continue for a period of ten (10) years thereafter. This Agreement shall automatically renew for additional ten (10) year terms unless either party notifies the other of intent to non-renew at least one hundred eighty (180) days prior to expiration of the term or any extensions thereof. Either party may terminate this Intergovernmental Agreement at any time with or without cause, upon one year's written notice to the other party. At least sixty (60) days before submitting notice of termination to the other party, a party desiring to terminate shall meet and confer in good faith with the other party about its reasons for termination. Any termination or repeal of any authorizing ordinance will apply prospectively to any proposed Land Development Projects and shall not affect the performance of any Projects approved when this Agreement was in effect.

## 9. Miscellaneous Provisions

A. Faith and Credit. Neither party shall extend the faith or credit of the other to any third person or entity.
B. Amendments. This Agreement may be amended only by mutual agreement of the parties and shall be evidenced by a written instrument authorized and executed with the same formality as this Agreement.
C. Notice. Any notice required by this Agreement shall be in writing. If such notice is hand delivered or personally served, it shall be effective immediately upon such delivery or service. If given by mail, it shall be certified with return receipt requested and addressed to the following addresses:

## Town of Bennett

Town Administrator
207 Muegge Way
Bennett, CO 80102

## Bennett School District No. 29-J

Attention: Superintendent
$6157^{\text {th }}$ Street
Bennett, CO 80102
D. Governing Law. This Agreement and the rights and obligations of the parties hereto shall be interpreted and construed in accordance with the laws of the State of Colorado.
E. Severability. If this Agreement, or any portion of it, is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions of the agreement.
F. Indemnification. The Town and School District agree to cooperate in the defense of any legal action that may be brought contesting the validity of this Agreement or the implementing ordinances. The School District shall be responsible for defending any such claim, whether filed against the Town, the School District, or both. The School District shall assume responsibility for payment of reasonable attorney fees. Upon receipt by the Town of any claim, or commencement of a civil action against the Town, the Town shall give prompt written notice thereof following which the parties agree to consult with each other regarding the claim and/or defense of the action and selection of counsel in connection therewith. Nothing contained in this Agreement shall constitute a waiver by the Town or the School District of the provisions of the Colorado Governmental Immunity Act or other applicable immunity defense. This provision shall
survive termination of the Agreement, and be enforceable until statutes of limitation preclude all claims.
G. Provisions Construed as to Fair Meaning. The provisions of this Agreement shall be constructed as to their fair meaning, and not for or against any party based upon any attributes to such party as the source of the language in question.
H. Compliance with Ordinances and Regulations. This Agreement shall be administered consistent with all current and future Town laws, rules, ordinances, and regulations concerning land dedication or conveyance for public school sites.
I. No Implied Representations. No representations, warranties, or certifications, express or implied, shall exist as between the parties, except as specifically stated in this Agreement.
J. No Third-Party Beneficiaries. None of the terms, conditions, or covenants in this Agreement shall give or allow any claim, benefit, or right of action by any third person not a party hereto. Any person other than the Town or School District receiving services or benefits under this Agreement shall be only an incidental beneficiary.
K. Financial Obligations. This Agreement shall not be deemed a pledge of the credit of the Town or the School District or a collection or payment guarantee by the Town to the School District. Nothing in this Agreement shall be construed to create a multiple fiscal year direct or indirect municipal debt or municipal financial obligation.
L. Integrated Agreement and Amendments. This Agreement is an integration of the entire understanding of the parties with respect to the matters stated herein. The parties shall only amend this Agreement in writing with the proper official signatures attached hereto.
M. Waiver. No waiver of any breach or default under this Agreement shall be a waiver of any other or subsequent breach or default.
N. Ordinance. This Agreement has been approved by the Town as part of and in conjunction with an ordinance establishing the requisite standards and requirements of the Town for future annexation and subdivision of land annexed after the Effective Date hereof.
O. Prospective Application. This Agreement shall apply prospectively to any proposed Land Development Projects approved by the Town on or after the Effective Date of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall be in full force and effect the day and year first above set forth.

TOWN OF BENNETT, COLORADO

By:
Royce D. Pindell, Mayor
ATTEST:

Christina Hart, Town Clerk

BENNETT SCHOOL DISTRICT 29-J

By:
President, Board of Education
ATTEST:

## Secretary

## Date:

$\qquad$

Date: $\qquad$

## EXHIBIT A

## METHODOLOGY

I. Student Yield, Land Dedication and Fee-in-Lieu Calculator

| Student Yield Calculator |  |  | Elementary |  | Middle |  | High |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Housing Unit Type |  |  |  |  | $\begin{aligned} & \text { N } \\ & \stackrel{1}{0} \\ & \frac{0}{7} \\ & \dot{\sim} \end{aligned}$ |  | $$ |  | ¢ ¢ O ¢ |
| Single Family Detached | X | 0.29 | 0 | 0.15 | X | 0.16 | 0 | 0.6 | X |
| Single Family Attached | X | 0.14 | 0 | 0.06 | X | 0.08 | 0 | 0.28 | $X$ |
| Multi-family | X | 0.07 | 0 | 0.03 | X | 0.04 | 0 | 0.14 | $x$ |
| Totals |  |  |  |  |  |  |  |  | $x$ |


| Acreage Calculator | Units |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Single Family Detached Units (SFD) | 0 | 0.0162 | 0 | \$2,079.09 | 0 |
| Single Family Attached Units (SFA) | 0 | 0.0075 | 0 | \$964.84 | 0 |
| Multi-family Units (MF) | 0 | 0.0038 | 0 | \$482.42 | 0 |
| Totals |  |  | 0 | Or | 0 |

## II. School Site Acreage Requirements

| Elementary School | 10 acres |
| :--- | :--- |
| Middle School | 25 acres |
| High School | 48 acres |

4872-5334-9638, v. 1

# AN ORDINANCE AMENDING CHAPTER 16 OF THE BENNETT MUNICIPAL CODE CONCERNING FAIR CONTRIBUTIONS FOR PUBLIC SCHOOL SITES 

WHEREAS, current and projected growth in residential land development and the construction of new residential dwellings in the Town necessitates the acquisition of additional school sites to accommodate the corresponding increase in school population; and

WHEREAS, the Board of Trustees previously adopted Sections 16-5-510 and 16-5-520 of the Bennett Municipal Code, which require land dedication or conveyance for public school sites or payments in lieu of land dedication or conveyance for public school sites (hereinafter referred to as "fair contributions for public school sites"); and

WHEREAS, to provide adequate public school sites to serve the Town residents of newly constructed residential dwelling units, it is appropriate that the Town and Bennett School District No. 29-J cooperate in the area of acquisition of additional public school sites and/or the enlargement or the new construction of school facilities by the use of fair contributions for public school sites; and

WHEREAS, the Town and Bennett School District No. 29-J have entered into an Intergovernmental Agreement Concerning Land Dedications or Payments In Lieu for School Purposes (the "IGA"), which updates and amends the requirements for fair contributions for public school sites; and

WHEREAS, in order to implement the terms of the IGA, the Board of Trustees has determined it should amend Sections 16-5-510 and 16-5-520 of the Bennett Municipal Code concerning fair contributions for public school sites; and

WHEREAS, the Board of Trustees has held a duly-noticed public hearing to consider and hear public comments on the proposed amendments; and

WHEREAS, it is a reasonable exercise of the power of local self-government to require fair contributions for public school sites as a method of ensuring that new residential construction and residential development bear a proportionate share of the cost of such acquisition, enlargement and/or construction of additional public school sites necessary to accommodate the education service capacity demands of the residents who will be living in the new dwelling units.

## NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BENNETT COLORADO:

Section 1. Section 16-5-520 of the Bennett Municipal Code is hereby repealed and reenacted to read as follows:

Sec. 16-5-520 - Fair contributions for public school sites.
(a) For all subdivisions of land, the subdivider shall dedicate land for a
public school site to the Bennett School District No. 29-J (the "School District"). In the event the dedication of land is not in the best interest of the School District, the subdivider shall make a payment in lieu of land dedication or a combination of land dedication and an in-lieu payment.
(b) The amount of such contribution of either land or payment in lieu of land (the "fair contribution for public school sites") shall be determined in accordance with the provisions of the Intergovernmental Agreement Concerning Land Dedications or Payments in Lieu for School Purposes between the Town and School District, as may be amended from time to time.
(c) The following uses shall be excepted from the fair contribution for public school sites requirement:
(1) Construction of any nonresidential building or structure;
(2) Alteration, replacement or expansion of any legally existing building or structure with a comparable new building or structure which does not increase the number of residential dwelling units;
(3) Construction of any building or structure for a limited term stay or for long-term assisted living, including but not limited to bed and breakfast establishments, adult boarding or rooming houses, family-care homes, group-care homes, halfway houses, hotels, motels, nursing homes or hospices; and
(4) Construction of any residential building or structure that is subject to recorded covenants restricting the age of the residents such that the residential building or structure may be classified as "housing for older persons," pursuant to the Federal Fair Housing Amendments Act of 1988, as amended.
(d) In the event the fair contribution for public school sites includes the dedication of land, the subdivider shall provide to the Town, prior to recording of the final plat, proof that such dedication has been made to the School District in accordance with the following requirements:
(1) The subdivider has conveyed to the School District by warranty deed title to the land slated for dedication, which title is free and clear of all liens, encumbrances and exceptions (except those approved in writing by the School District), including without limitation, real property taxes, which will be prorated to the date of conveyance or dedication. If requested by the School District, the subdivider shall also enter into a contract with the School District for the sale and purchase of real property containing customary terms for the land which is being conveyed to the School District.
(2) At the time of conveyance, the subdivider has provided a title insurance commitment and policy in an amount equal to the fair market value of the dedicated property; and
(3) Arrangements have been made such that at the appropriate time, and not later than the issuance of the first residential building permit for the subdivision, the subdivider shall either provide or pay the costs associated with ensuring that the school site has direct access to a publicly dedicated street improved to Town standards, utilities (including water, sewer, storm sewer, electric, natural gas and telecommunications) stubbed to the school site, and overlot grading of the school site, which shall include mass grading but not final/fine grading.

Section 2. Section 16-5-510 of the Bennett Municipal Code is hereby repealed and reenacted to read as follows:

## Sec. 16-5-510 - Public land dedication requirements.

(a) At the time of subdivision, the subdivider shall dedicate to the Town and improve to the Town's specifications usable tracts of land that are free from liens or encumbrances, for park land and public facilities. This land may be used for public parks, trails, open space, public facilities or recreational purposes. The public land dedication requirement shall be equal to ten percent ( $10 \%$ ) of the total land area contained within the subdivision. This requirement applies to all subdivisions where additional lots are being created, regardless of zoning classification.
(b) The subdivider shall make payment to the Town in lieu of public land dedication if the Town determines that:
(1) The proposed land dedication would be inconsistent with the provisions of the Comprehensive Plan;
(2) The proposed land dedication is at a location which is unacceptable to the Town; or
(3) The Town would derive greater benefit at the time from a cash-in-lieu payment than from the provision of land for the development of the required facility.
(c) The amount of a cash-in-lieu payment shall be determined by the size of the required land dedication (in acres, rounded to two (2) decimal points), times:
(1) The average per-acre cost of land as determined by a real estate appraisal prepared by an appraiser acceptable to both the subdivider and the Town. The appraisal shall be secured and paid for by the Town, which shall in turn be reimbursed for such expense by the subdivider; and
(2) For the park land portion only, the average cost per acre to purchase and improve undeveloped land for park purposes pursuant to the Town's adopted standards and specifications.
(d) Cash-in-lieu payments shall be restricted to use in acquiring and improving land for used for public parks, trails, open space, public facilities or recreational purposes within the Town, and shall be in an interest-bearing account, with all interest reserved for the same purposes.
(e) The public land dedication requirement is in addition to all other land dedications, including but not limited to, land dedications required for streets, roads, and drainage facilities.

Section 3. If any article, section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The Board of Trustees hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 4. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof are hereby repealed to the extent of such inconsistency or conflict.

Section 5. The repeal or modification of any provision of the Bennett Municipal Code by this ordinance shall not release, extinguish, alter, modify, or change in whole or in part any penalty, forfeiture, or liability, either civil or criminal, which shall have been incurred under such provision, and each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings, and prosecutions for the enforcement of the penalty, forfeiture, or liability, as well as for the purpose of sustaining any judgment, decree, or order which can or may be rendered, entered, or made in such actions, suits, proceedings, or prosecutions.

# INTRODUCED, READ, ADOPTED, APPROVED, AND ORDERED PUBLISHED BY TITLE ONLY THIS 25th DAY OF JANUARY, 2022. 

TOWN OF BENNETT, COLORADO

Royce D. Pindell, Mayor

## ATTEST:

Christina Hart, Town Clerk

## BENNETT PLANNING AND ZONING COMMISSION

RESOLUTION NO. 2022-04


#### Abstract

A RESOLUTION OF THE BENNETT PLANNING AND ZONING COMMISSION RECOMMENDING APPROVAL OF AN ORDINANCE AMENDING CHAPTER 16 OF THE BENNETT MUNICIPAL CODE CONCERNING FAIR CONTRIBUTIONS FOR PUBLIC SCHOOL SITES


WHEREAS, there has been proposed a draft ordinance to amend certain provisions in Chapter 16 of the Bennett Municipal Code concerning fair contributions for public school sites; and

WHEREAS, the Planning and Zoning Commission has held a duly-noticed public hearing to consider and hear public comments on the proposed amendments; and

WHEREAS, based on the recommendation of Town Staff, the testimony of the witnesses and the documents made a part of the record of the public hearing, the Planning and Zoning Commission finds that the proposed ordinance should be approved in essentially the same form as accompanies this Resolution.

NOW THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF BENNETT, COLORADO, AS FOLLOWS:

Section 1. The Planning and Zoning Commission hereby recommends approval of the proposed ordinance amending Chapter 16 of the Bennett municipal code concerning fair contributions for public school sites.

INTRODUCED, PASSED AND ADOPTED, THIS 24th DAY OF JANUARY, 2022.

Chairperson

ATTEST:

Christina Hart, Town Clerk

## Suggested Motion

I move to approve Resolution No. 2022-04 - A resolution recommending approval of an ordinance amending Chapter 16 of the Bennett Municipal Code concerning air contributions for public school sites.


[^0]:    Christina Hart, Town Clerk

[^1]:    2018 International Fire Code - Appendix D.pdf 134 K

[^2]:    Christina Hart, Town Clerk

[^3]:    SHEET INDEX SHEET $1 \begin{aligned} & \text { COVER SHEET } \\ & \text { SHEET } \\ & 2\end{aligned}$ SHEET INDEX MA SHEET 3 BOUNDARY MAP SHEET 4 PLAN SHEET
    SHEET 5 PLAN SHEET

[^4]:    Water System Layout B-Ranch N Townhomes - 1st Submittal - Hydrants.pdf 704K

