PLANNING & ZONING COMMISSION  
REGULAR MEETING  
Town Hall, 450 S Parish Ave., Johnstown  
7:00 PM, Wednesday, April 27, 2022  

In-person Town Hall Meeting. Live Streamed on Zoom – no participation available online, for viewing only.

AGENDA

I. Call to Order

II. Roll Call

III. Approval of Agenda

IV. Approval of Minutes for April 13, 2022

V. Public Comments Regarding Items Not on the Agenda (limited to 3 minutes each)

VI. New Business

   a. PUBLIC HEARING – East Ledge Rock Center Subdivision Filing No 1 (SUB22-0006) – Proposed 155-acre subdivision to create building footprints for future commercial development, at the southeast corner of Hwy 60 and High Plains Blvd.

   b. PUBLIC HEARING – West Ledge Rock Center Subdivision Filing No 1 (SUB22-0005) – Proposed 25-acre subdivision to create building footprints for future commercial, at the SE corner of Hwy 60 and I-25.

   c. PUBLIC HEARING – 27 Parish Mixed Use Building (DEV21-0016) – Proposed downtown mixed-use building with office and residential uses, 27 N Parish Ave.

   d. PUBLIC HEARING – Bucee’s Travel Center Site Dev Plan (DEV21-0018) - Proposed 74,000 SF retail travel center with fuel station, located in the SW of I-25 & WCR 48.

VII. Department Report

VIII. Adjournment

Upcoming Meetings:

- Tentative Regular Meeting Dates: May 25, June 8, June 22, July 13, July 27. Please let Planning Staff know if any Commissioners plan to be absent, to ensure a quorum.
The meeting was called to order by Chair Weber at 7:00 P.M. Roll call attendance was taken. Present were Commissioners Campbell, Flores, Grentz, Hayward, Salo, Singh, and Weber.

Agenda was approved unanimously.

Commission approved the Minutes of March 23, 2022, on a 5/0 vote – Grentz, Campbell, and Singh Abstained due to non-attendance.

No public comments on items not on the agenda.

The Public Hearing for SUB21-0019 Podtburg Preliminary Subdivision Plat and Development Plan was opened. Justin Currie, Planner II, presented an overview and the Town staff analysis for this golf course neighborhood project. Kristin Turner, TB Group, represented the Applicant. Turner provided a brief presentation, introduced the project team, and clarified the creation of the lot for the golf course. Planning and Zoning Commission asked questions related to traffic planning and anticipated traffic impacts. Turner indicated that master traffic planning and analysis was handled at the ODP level, and this project does not include any access, parking, or “use,” future development plans. At that time, based on that phase, traffic impacts will be addressed incrementally. Commission asked about time frame. No timeline for residential at this time. The golf course will be constructed over the next year. The golf course will be irrigated by the non-potable water on the property.

Commissioner:
- ADT (traffic) on CR 44 today? Rollins wasn’t able to provide that information. More detailed traffic information will come as future development plans area forthcoming, which will give better updated picture at that time.

Public Comment:
- Jim Hatfield, 345 Hickory Ln. – Traffic per day on Colorado, and access.
  - Commission asked the Applicant to respond. The main entrance for the golf course is on CR 44. No final number of trips per day at this time, dependent on density of residential, and future commercial. Traffic for the golf course was answered by Ruth Rollins, about 550 trips per day.
- Rutt, 5477 WCR 44 – Questions about drainage/stormwater heading north. Drainage ditch on his property – expected to be used or abandoned? Fence or netting on the golf course? Water & sewer lines planned? Road upgrades on CR 13 & CR 44 – schools and development?
Public hearing was closed. Motion was made to Recommend Approval to the Town Council per findings and language provided in the staff memo by C. Hayward / 2nd by C. Grentz.
Vote: 7/0

The Public Hearing for **SUB21-0024 Johnstown Village Filing 2 Final Subdivision Plat and Development Plan** was opened. Justin Currie, Planner II, presented an overview and Town staff analysis for this 150-unit attached single-family project. Commissioners asked about traffic impacts and what has been considered for this. Staff indicated the existing improvements were required with the Filing 1 for all the residential areas, all also participated in a signal for that intersection at Meadowlark and Zack. Commissioners asked about the size of the park, and matching the landscaping & walk from Filing 1.

Applicant was represented by Shane Rugg, Prosper LLC. Commissioner asked about the street sizing on-site. Rugg explained that the north-south road is a public street; all other drives are concrete private alleyways, maintained by the HOA. C. Flores asked about the sufficiency of the guest parking. Applicant noted 2 car garages for each unit, 68 additional spaces are provided within the site.

Public comment:
- Jim Hatfield, 345 Hickory Dr., - President of Clearview HOA. Drainage pipes under Colorado Blvd. were installed, but have been blocked off. How much of CR 13 is ours vs Weld Co?
  - Rugg noted that they tie into new stormwater infrastructure
- Richard Faulmann, 153 Alder Ave. – Before any more permits are permitted in the town, rebuild and improve CR 13. CR 13 has become the N/S “frontage road.” New schools in Clearview. New golf course further south on Colorado Blvd.
  - Commissioners requested Staff comments on traffic planning – Staff acknowledged the coming development, and noted various projects that will be involved, as well as coordination on Hwy 60, Colorado Blvd., and frontage road alternatives.

Public Hearing closed. Motion to Recommend Approval with Conditions as stated in the staff memo was made by C. Grentz / 2nd by C. Flores
Vote: 7/0

Meyer noted the Land Use Code Town online meeting the Town held the night before.
Meeting was adjourned at 8:01 PM.

Respectfully Submitted
Kim Meyer, Director:

Accepted:
Bruce Weber, Chair
ITEM: Preliminary/Final Subdivision Plat of East Ledge Rock Center Subdivision Filing No. 1

DESCRIPTION: Proposed 155-acre parcel to create building footprints for future commercial development, and one large tract for future subdivision

LOCATION: South of Hwy 60 and east of future High Plains Blvd alignment (south extension)

APPLICANT: Ledge Rock Center, LLC

STAFF: Kim Meyer, Planning & Development Director

HEARING DATE: April 27, 2022

ATTACHMENTS
1. Vicinity Map
2. Proposed Plat

PROJECT SUMMARY
The Applicant is requesting consideration of a combined Preliminary/Final Subdivision Plat encompassing approximately 155 acres. The existing use of this parcel is agricultural. This plat subdivides Lot “B” and Lot “A” of recorded exemption No. 1060-11-1-RE 2092, dedicates right of way, and vacates certain legal extents. Tract A (31.604 AC.) will be subdivided into Lots “1”-“5” for future commercial development. Tract B (119.311 AC.) will be reserved for a future subdivision.

The western boundary of this project will develop as the southern extension to High Plains Boulevard, and eventually connect into the larger, 14-mile, regional “interstate parallel arterial” envisioned within an existing IGA between Johnstown, multiple municipalities, counties, and CDOT. Future accesses would be anticipated to be primarily from this future High Plains Blvd., and would be further determined with future development plans.

Zoning: PUD-MU (Mixed Use)

ADJACENT ZONING & LAND USE
North
   SF-1 – Existing “Rocksbury Ridge Subdivision”

East
   Weld Co. ‘A’ – Existing ag properties

South
   Weld Co. ‘A’ – Existing ag properties

West
   PUD-MU – Proposed “West Ledge Rock Subdivision”
PROPRIETARY LAND USE HISTORY
This property has historically been agricultural use. This property consisted of four parcels that were annexed into the Town of Johnstown in 2004 as “Ridgeview Ranch Annexation.”

PUBLIC NOTICE
Notice for the Planning & Zoning Commission hearing was published in the Johnstown Breeze, on Thursday, April 7, 2022, per municipal code. This notice provided the date, time, and location of the Planning and Zoning Commission hearing, as well as a brief description of the project. Notices were mailed to all property owners within 500 feet of the property in question. This notice included a location map and concept plan for the proposed subdivision. No neighborhood meeting was held for this project or required at this time. No public comments have been received by Staff as of the date of publication of this report.

STAFF ANALYSIS
This 155-acre property is encompassed in the Ledge Rock Center ODP and intended for a mix of uses, including a commercial/retail center, multifamily and single-family development. The proposed plat dedicates needed right-of-way along Highway 60, to a full 150’ cross-section, and High Plains Boulevard (120’ cross section), creates a 119-acre Tract B for future subdivision of these additional uses; and Tract A, which will be owned by the metro district and ultimately be used for common elements such as drives, parking, and landscaping. The “building footprint” lots (1-5) are intended to coincide with future commercial development – which may have minor modifications as the Town reviews the commercial site plan for this portion of the project. Additional planning and engineering review processes and approvals, as well as final agreements with the town, must be completed prior to construction.

A submittal for the “master” development of Ledge Rock Center has been submitted and is in review with the Town. Those plans and reports provide detail on extension and needed sizing of utilities, regional detention and stormwater management, and configuration/construction of proposed internal streets. Additional subdivision will be required to dedicate additional street rights-of-way and create additional buildable lots. The Ledge Rock Center Retail East Site Development Plans, which would apply to Tract A and these commercial building lots, have been submitted to the Town and are currently in the development review process, pending administrative approval, once all codes, standards and regulations are met; and contingent upon that master development plan set being approved.

The proposed Preliminary/Final Subdivision Plat substantially complies with town code and regulations; aligns with the Johnstown Area Comprehensive Plan as an area of Medium and High Density/Intensity; and meets the development standards of the Ledge Rock Center PUD Outline Development Plan.

This subdivision is being processed without submittal of full construction drawings, with the understanding that future development plans, subdivisions, and any construction or development will require additional town review and approval of all development and engineering reports, plans, construction drawings, and other plans for public and private improvements prior to construction of improvements or structures. Notes to this effect has been added to the plat, and also provide for minor amendments that would allow the footprints to move, as needed, to better match final approved development plans. These footprint lots are typically finalized based upon field surveys of the final foundation footprint once structures are constructed.

As noted on prior projects of this nature, while this type of subdivision is not in strict conformance with code requirements that require submittal of engineering reports and development plans with plats, the ability to proceed to platting without full plans and “CD’s” in place is accommodated elsewhere, in Staff’s
interpretation, by JMC §17-111 requiring that an agreement be in place that requires all necessary improvements, in conformance with Town design standards and other applicable codes and regulations, and which plans/reports have been reviewed and approved by the Town. The Town has existing agreements in place to that effect, with this Applicant, and more specifically, with the metropolitan district that is the “developer” of the proposed commercial center.

Staff recognizes that, on large properties with potentially long-term development plans that may not yet be known, this type of platting can be utilized as a reasonable and flexible approach to how the market functions. Utilizing this option allows known uses/users to move forward, creates larger tracts for sale to other specialty developers (i.e., shopping center, multi-family, single family), while securing right-of-way, utility easements, and other up-front needs of the Town and community to ensure logical and efficient build-out as the area develops. Staff believes that this approach fulfills the spirit and intent of the Code.

RECOMMENDED PLANNING AND ZONING COMMISSION FINDINGS AND MOTIONS

Recommended Findings
It is recommended that Planning and Zoning Commission send a recommendation for Approval with Conditions to Town Council that the requested subdivision of East Ledge Rock Center Subdivision Filing No. 1 be approved based upon the following findings:

1. The proposed development is consistent with the Johnstown Area Comprehensive Plan, and the approved Ledge Rock Center Outline Development Plan.

2. The proposed subdivision is in substantial compliance with the Town’s codes, regulations, and requirements.

3. The proposed subdivision will allow a more flexible approach to development of the large acreage, while meeting the needs of the community as it develops.

Recommended Motion
Based on the application received, associated materials presented, and the preceding analysis, I move that the Planning & Zoning Commission recommend Approval of the East Ledge Rock Center Subdivision Filing No. 1 Preliminary/Final Plat to the Town Council based upon the findings as stated above, and with the following conditions:

1. Prior to construction of any public or private development improvements, Town-approval of all required plans, reports, and permits shall be obtained.

2. The Applicant shall enter into all appropriate agreements related to development and construction activities and water and sewer service prior to construction of public and private improvements and issuance of any building permits.

Alternate Motion
Motion to Deny: “I move that the Planning & Zoning Commission recommend to the Town Council Denial of the East Ledge Rock Center Subdivision Filing No. 1 Preliminary/Final Plat based upon the following findings...”
VICINITY MAP

EAST LEDGE ROCK CENTER SUBDIVISION FILING NO. 1
ITEM: Preliminary/Final Subdivision Plat of West Ledge Rock Center Subdivision Filing No. 1

DESCRIPTION: Proposed 25-acre subdivision to create one tract, and several commercial building footprints for future commercial development

LOCATION: Southeast corner of Hwy 60 and I-25

APPLICANT: Ledge Rock Center, LLC (Owner: Town of Johnstown)

STAFF: Kim Meyer, Planning & Development Director

HEARING DATE: April 27, 2022

ATTACHMENTS
1. Vicinity Map
2. Proposed Plat

PROJECT SUMMARY
The Applicant is requesting consideration of a combined Preliminary/Final Subdivision Plat encompassing approximately 25 acres. The existing use of this parcel is agricultural. This plat further subdivides Lot 2, of the Oxy Land Subdivision (SUB21-0021) and begins to create a metro-district owned tract for common elements and building lots for the development of a future commercial center. The eastern boundary of this project will develop as an extension to High Plains Boulevard.

Zoning: PUD-MU (Mixed Use)

ADJACENT ZONING & LAND USE
North PUD-MU – “Vista Commons”
East PUD-MU – Proposed “East Ledge Rock Subdivision”
South PUD-MU – Oil & Gas wells; and Weld Co. ‘A’ – Existing ag properties
West I-25 and PUD-MU – “Welty Ridge”

PROPERTY LAND USE HISTORY
This property has historically been agricultural use. This property was annexed into the Town of Johnstown in 2008 as “Johnstown Commercial Annexation” and zoned PUD-MU at that time. A 2021 subdivision – Oxy Land – created the current lot. No development has occurred on-site.
The Ledge Rock Center PUD Outline Development Plan (ODP) was approved by the Town in early 2022, with high level “bubble” areas of land uses, which provides for a mixed use commercial center in this area.

**PUBLIC NOTICE**
Notice for the Planning & Zoning Commission hearing was published in the Johnstown Breeze, on Thursday, April 7, 2022, per municipal code. This notice provided the date, time, and location of the Planning and Zoning Commission hearing, as well as a brief description of the project. Notices were mailed to all property owners within 500 feet of the property in question. This notice included a location map and concept plan for the proposed subdivision. No neighborhood meeting was held for this project or required at this time. No public comments have been received by Staff as of the date of publication of this report.

**STAFF ANALYSIS**
This property is encompassed in the Ledge Rock Center ODP and intended for a commercial/retail center. All needed right of way for this property was previously dedicated to the Town. This subdivision is being proposed to create a new Lot 1; Tract A, which will be owned by the metro district and ultimately be used for common elements such as drives, parking, and landscaping; and “building footprint” lots, created to coincide with future commercial development. Additional planning and engineering review processes and approvals, as well as final agreements with the town, must be completed prior to construction.

The proposed Preliminary/Final Subdivision Plat substantially complies with town code and regulations; aligns with the Johnstown Area Comprehensive Plan as an area of Medium and High Density/Intensity; and meets the development standards of the Ledge Rock Center PUD Outline Development Plan.

This subdivision is being processed without submittal of full construction drawings, with the understanding that future development plans, subdivisions, and any construction or development will require additional town review and approval of all development and engineering reports, plans, construction drawings, and other plans for public and private improvements prior to construction of improvements or structures. Notes to this effect have been added to the plat, and also provide for minor amendments that would allow the footprints to move, as needed, to better match final approved development plans. These footprint lots are typically finalized based upon field surveys of the final foundation footprint once structures are constructed.

As noted on prior projects of this nature, while this type of subdivision is not in strict conformance with code requirements that require submittal of engineering reports and development plans with plats, the ability to proceed to platting without full plans and “CD’s” in place is accommodated elsewhere, in Staff’s interpretation, by JMC §17-111 requiring that an agreement be in place that requires all necessary improvements, in conformance with Town design standards and other applicable codes and regulations, and which plans/reports have been reviewed and approved by the Town. The Town has existing agreements in place to that effect, with this Applicant, and more specifically, with the metropolitan district that is the “developer” of the proposed commercial center.

Staff recognizes that, on large properties with potentially long-term development plans that may not yet be known, this type of platting can be utilized as a reasonable and flexible approach to how the market functions. Utilizing this option allows known uses/users to move forward, creates larger tracts for sale to other specialty developers (i.e., shopping center, multi-family, single family), while securing right-of-way, utility easements, and other up-front needs of the Town and community to ensure logical and efficient build-out as the area develops. Staff believes that this approach fulfills the spirit and intent of the Code.
Staff has no outstanding concerns and believes this development will ultimately promote the Town’s goals of providing employment and activity centers, diverse housing types, walkable neighborhoods, and efficient development patterns and extension of infrastructure.

RECOMMENDED PLANNING AND ZONING COMMISSION FINDINGS AND MOTIONS

Recommended Findings
It is recommended that Planning and Zoning Commission send a recommendation for Approval with Conditions to Town Council that the requested subdivision of West Ledge Rock Center Subdivision Filing No. 1 be approved based upon the following findings:

1. The proposed development is consistent with the Johnstown Area Comprehensive Plan, and the approved Ledge Rock Center Outline Development Plan.

2. The proposed subdivision is in substantial compliance with the Town’s codes, regulations, and requirements.

3. The proposed subdivision will allow a more flexible approach to development of the large acreage, while meeting the needs of the community as it develops.

Recommended Motion
Based on the application received, associated materials presented, and the preceding analysis, I move that the Planning & Zoning Commission recommend Approval of the West Ledge Rock Center Subdivision Filing No. 1 Preliminary/Final Plat to the Town Council based upon the findings as stated above, and with the following conditions:

1. Prior to construction of any public or private development improvements, Town-approval of all required plans, reports, and permits shall be obtained.

2. The Applicant shall enter into all appropriate agreements related to development and construction activities and water and sewer service prior to construction of public and private improvements and issuance of any building permits.

Alternate Motion
Motion to Deny: “I move that the Planning & Zoning Commission recommend to the Town Council Denial of the West Ledge Rock Center Subdivision Filing No. 1 Preliminary/Final Plat based upon the following findings...”
Town of Johnstown

VICINITY MAP

West Ledge Rock Center Subdivision

The Community That Cares
johnstown.colorado.gov
P: 970.587.4664 | 450 S. Parish Ave, Johnstown CO 80534 | F: 970.587.0141
ITEM: 27 North Parish Mixed-Use Building Site Development Plan

PROJECT NO: DEV21-0016

DESCRIPTION: Proposed 10,750 SF Mixed-Use Building, with main level office and in-structure parking, with 2nd-story Residential Units (4) approximately 18,253 SF (0.42 AC)

LOCATION: North of Charlotte Street and Parish Avenue intersection

APPLICANT: 27 Parish Investments

STAFF: Justin Currie, Planner II

HEARING DATE: April 27, 2022

ATTACHMENTS
1. Vicinity Map
2. Site Development Plan
3. Architectural Elevations & Rendering

PROJECT SUMMARY
The applicant, 27 Parish Investments, is requesting approval of a Site Development Plan for a two-story mixed-use building consisting of four 1,640 sqft apartments on the 2nd floor and 2,885 SF of commercial area, with six in-building parking spaces on the 1st floor. The subject property is located in historic Downtown Johnstown and is zoned Central Business (CB) and the property is currently vacant/undeveloped.

SURROUNDING ZONING & LAND USE
North: CB – Central Business District – Commercial uses
South: CB – Central Business District – Commercial uses
East: I – Industrial – Railroad and Industrial Uses
West: CB – Central Business District – Commercial uses and Johnstown Senior Center
PROPERTY LAND USE HISTORY
Historically, this property has been used as a small independent auto mechanic shop, with a single residence, but was torn down in 2019 and the lot has remained vacant.

PUBLIC NOTICE & AGENCY REFERRALS
Notice for the Planning & Zoning Commission hearing was published in the local paper of widest circulation, the Johnstown Breeze, on Thursday, April 7, 2022. This notice provided the date, time, and location of the Planning and Zoning Commission hearing, as well as a description of the project. Notices were mailed to all property owners within 500 feet of the property in question. This notice included a location map and concept plan of the proposed building. As of the writing of this report no comments have been received.

NEIGHBORHOOD MEETING
No neighborhood meeting was held for this project.

STAFF ANALYSIS
This Site Development Plan is being brought to the Planning and Zoning Commission because Johnstown Municipal Code (JMC) states (Sec. 16-145) “Any development plan for a site not subject to PUD, but that falls in the Central Business District or a Gateway Zoning District shall be subject to Planning and Zoning Commission Review.”

This project has been reviewed by the Johnstown Review Committee, including engineering, utilities, and Fire District. There were no traffic concerns related to this use. The use is a permitted use in the CB zone district. Parking is being provided, at 1.5 spaces per unit of multi-family per municipal code, within the structure itself. There are no setbacks, and no requirements for landscaping or open space, permitting more typical “downtown” development, which tends to utilize the full lot for the structure. Some credit for water dedication is being provided from the prior use, with only the difference in demand being requested by the Town for dedication prior to being issued a building permit, per JMC Ch. 13, Art IV.

The architecture massing and materials are intended to match the historical downtown style, with a zero setback at the right of way, and the proposed mixed-use project meets the Downtown Design Guidelines. The Applicant has set-back the garage entrance to allow for a vehicle to pull off Parish Ave. to activate the door, and to screen that entrance along the downtown streetscape. Staff believes this project will positively contribute to the vision for the downtown district.

The proposed Site Development Plan substantially complies with Town code and regulations; aligns with the Johnstown Area Comprehensive Plan as an area of Medium Density/Intensity; and meets the development standards of the Downtown Design Guidelines.
Staff has no outstanding concerns and believes this development will promote the Town’s goals of diversity of housing types, walkable neighborhoods, and efficient infill development within the Central Business District.

RECOMMENDED PLANNING AND ZONING COMMISSION FINDINGS AND MOTIONS

Recommended Findings
It is recommended that Planning and Zoning Commission Approve this Site Development Plan based upon the following findings:

1. The proposed development plan is consistent with the 2021 Johnstown Area Comprehensive Plan.

2. The proposed development plan is in substantial compliance with the Town’s codes, regulations, and requirements.

3. The proposed development plan is in substantial compliance with the Downtown Design standards.

Recommended Motion: Motion to Approve, as presented
Based on the application materials received, and analysis and presentations at this hearing, the Planning & Zoning Commission moves to Approve the 27 North Parish Mixed-Use Building Site Development Plan based upon the findings, as stated above.

Alternate Motions:

Motion to Recommend Approval with Conditions
Based on the application materials received and analysis and presentations at this hearing, the Planning & Zoning Commission moves to Approve the 27 North Parish Mixed-Use Building Site Development Plan based upon the findings as stated above, and with the following conditions:

1.

Motion to Recommend Denial
I move that the Planning & Zoning Commission deny the approval of the 27 North Parish Mixed-Use Building Site Development Plan based upon the following findings:

1.
Town of Johnstown

VICINITY MAP

27 NORTH PARISH SITE DEVELOPMENT PLAN
EXISTING STORM SEWER MANHOLE
RIM: 80.70
INV OUT (N): 20" RCP: 78.20
INV IN (SW): 12" VCP: 76.00

EXISTING 15" RCP, 20± LF

EXISTING 15" RCP, 23± LF

EXISTING FIRE HYDRANT

70' FROM EXISTING FIRE HYDRANT

REMOVE EXISTING DEAD TREE AND REPLACE WITH PLANTER TO MATCH EXISTING MENTRY PLANTERS

SANITARY SEWER MANHOLE
RIM: 4823.74
INV OUT (SE): 8" VCP: 4812.44
INV IN (NW): 8" VCP: 4812.34

LEGEND
EXISTING SANITARY SEWER
EXISTING STORM SEWER

SHEET PLAN
27 NORTH PARISH AVENUE
JOHNSTOWN

FRONT RANGE FIRE RESCUE
TOWN OF JOHNSTOWN

LEGEND
EXISTING SANITARY SEWER
EXISTING STORM SEWER
PROPOSED WATER LINE
PROPOSED SANITARY SEWER

1 Of 3 Sheets
3/17/2022
ITEM: Site Development Plan for Buc-ee’s Travel Center
PROJECT NO: DEV21-0018
DESCRIPTION: Proposed 74,000 SF Retail Commercial “Travel Center” with 116 fueling stations, on approximately 24.5 acres.
LOCATION: South of Weld CR 48 and West of I-25
APPLICANT: Buc-ee’s, Ltd.
STAFF: Kim Meyer, Planning & Development Director
HEARING DATE: April 27, 2022

ATTACHMENTS
1. Vicinity Map
2. Site Development Plan – Site, Architecture, Landscape
3. 2022 Traffic Study – Welty Ridge with Buc-ee’s

PROJECT SUMMARY
The Applicant is requesting consideration of a Site Development Plan for a project called the “Buc-ee’s Travel Center.” The project site is the SW corner of I-25 and CR 48, just west of the I-25 right of way. The center will include a 74,000 square foot retail store and 116 fuel pump spaces under a canopy structure. The site would also provide bicycle parking on-site as well as electric vehicle parking areas, presumably for electric vehicle charging stations, and serves only passenger-type vehicles. Large semi-trucks and trailers are generally on-site for store and fuel deliveries only.

Zoning: PUD-MU – Welty Ridge PUD

ADJACENT ZONING & LAND USE
North G – Gateway & PUD – I-25 Gateway – Retail and light industrial uses
East I-25
South Weld County ‘A’ – Agricultural and rural residential
West Weld County ‘A’ – Agricultural and rural residential
PROPERTY LAND USE HISTORY
This property was annexed into the Town with the Veeman Annexation in 2008, and zoned PUD-MU (Mixed Use) at that time. It has historically been agricultural use with some minor oil and gas facilities on-site, all of which appear as “plugged and abandoned” on the current COGCC website.

The Welty Ridge Outline Development Plan (ODP) (ZON19-0003) was approved in 2019 and amended in 2021 (ZON21-0005) with minor modifications. That was followed by the initial subdivision of the property, Welty Ridge Subdivision (SUB21-0018), which included creation of two buildable lots, and dedication of the street rights-of-way for Weld CR 48 as well as the internal streets that are shown on the proposed site plan for the extension of Commerce Dr. and Nugget Rd. This project is proposed for Lot 1 of that subdivision.

PUBLIC NOTICE
Notice for the Planning & Zoning Commission hearing was published in the Johnstown Breeze, on Thursday, April 7, 2022. This notice provided the date, time, and location of the Planning and Zoning Commission hearing, as well as a description of the project. Notices were mailed to all property owners within 500 feet of the property in question, as well as emailed to interested parties in the Gateway subdivision to the north. This notice included a vicinity map and the proposed site plan.

No neighborhood meeting was required. Staff and the Applicant have meet with the interested Gateway parties several times to discuss the 2021 Welty Ridge subdivision and roadway improvements proposed with that project. No public comments have been received by Staff as of the date of publication of this report.

STAFF ANALYSIS
Review Criteria
Per Johnstown Municipal Code §16-145(e)(1)c, this project is not currently governed by a set of detailed design guidelines for the PUD, and therefore subject to Full Review by the Planning & Zoning Commission and Town Council. The standards and elements for review within the Code (JMC §16-145(j)), include:

- Zoning and land use
- Height, bulk, yard setbacks, building coverage, & other site considerations
- PUD / ODP Design Guidelines
- Utilities
- Stormwater and drainage
- Parking
- Loading
- Stacking
- Landscaping
- Lighting
- Signs
- Circulation – vehicular
- Circulation – pedestrian
- Town plans and design guidelines

The code further states that the final reviewing body “shall approve a proposed development plan application if... it conforms” to all of the appropriate and applicable standards.

Johnstown Review Committee (JRC)
The JRC has reviewed these development plans, as well as the accompanying engineering and construction drawings, and worked with the Applicant to institute appropriate revisions to ensure compliance with Town standards, guidelines, and specifications, as they relate to this property and Site Development Plan. All JRC members have indicated the site substantially conforms to town standards and prior master development plans and reports, and, with final requested revisions of engineering plans, is anticipated to meet all applicable codes, standards and regulations. This review, and that of the prior
subdivision, included coordinating referrals with CDOT, Weld County, Front Range Fire, Traffic engineer, Water engineer, Public Works, and Utilities, as well as the contracted Town engineer. Final approved and accepted plans and reports are required prior to construction on-site, with the exception of some early grading work.

**Overall Site Development Plan**
The proposed site plan conforms to the Town design guidelines and the Welty Ridge ODP, as amended. There are considerable setbacks from each property line to the building and to allow landscaping and screening of parking areas. Landscape plans indicate appropriate plant types and quantities to satisfy the town’s requirements, and open areas to meet the ODP requirement. The proposed signage meets existing town codes, with the planned interstate signature “pylon” sign meeting the approved Welty Ridge ODP requirements. The building provides a deep pedestrian walkway that surrounds the building on three sides, where public entrances are located, with easily-identified entryways.

The architecture provides 360-degree treatment of the facades with similar materials, using a substantial amount of masonry on all facades. Additional treatments include reasonable screening of loading areas and enclosures for dumpsters and the proposed generator and compactor. The southwest elevation shows the more “functional” side of the structure, with screening walls to screen the loading docks, and four overhead doors that will be reasonably screened from the adjacent roadway with parking lot perimeter landscaping further to the south. Height of the building is shown at 38'-5" to the top of the highest parapet, with most of the parapet roofline sitting at 28'. The ODP permits heights up to 75'.

The site, as an interstate travel center, is very oriented towards vehicles, with substantial parking and drive areas to accommodate the range of customer vehicles likely to visit the site. Staff has worked with the Applicant to create several defined pedestrian crossings through the site. All minimum standards are met; the town does not have maximum parking or drive aisle standards. Site lighting and fixtures, shown on a photometric plan in the technical drawings, also conforms to town standards. Overall, the various site elements have been found to be in substantial compliance with the ODP and Town standards, specifications, and design guidelines.

**Traffic**
This project would be a large retail project, that will generate up to 23,084 trips per weekday. Peak hour trips are anticipated at 1,220 in the AM and 1,692 in the PM. The roundabout that was proposed with the Welty Ridge Subdivision was sized and designed specifically to accommodate the anticipated increase in traffic with this proposed use, and is intended to keep vehicles moving through the soon-to-be I-25 diverging diamond interchange. This site plan indicates direct access to the site via this roundabout, as well as from Nugget Road via Commerce Drive. Leaving the site, vehicles may use Nugget Road, or a series of three “arms” of this roundabout that will help guide vehicles to the proper lane to enter the diverging diamond interchange traffic flows, depending on their intent to access I-25 north or south, or continue east on Hwy 60.

The Public Works department and the town’s traffic engineering firm, FHU, spent considerable time reviewing the provided traffic study, discussing issues and questions with the Applicant, and analyzing this stretch of road to ensure long term success for the overall transportation network. They have both
approved of that roundabout as part of the proposed Welty Ridge improvements to CR 48; as well as the accesses proposed from this site into that improved street network.

Utilities
Water and sewer service are proposed to extend south from Gateway Drive, with the water looping back out to Nugget Rd. Stormwater and required detention will be managed privately, on-site in the northeast corner of the property.

In keeping with municipal code, raw water shares will be dedicated, based on engineer-approved use estimates, prior to building permit issuance.

Home Supply Ditch Co.
This site and adjoining road and utility work along CR 48 do impact the Home Supply ditch that runs along the north side of this site. The Applicant has been working directly with the ditch company to ensure continued operations of their ditch, as well as any improvements that are needed to the ditch or ditch access that may be impacted by this project. Access will be modified to be pulled from the NE corner of the drive/parking area, replacing the current CR 48 drive access, which would become quite challenging to use with the roadway improvements.

Conclusion
After considerable coordination with the Applicant in conjunction with our review partners, Staff has no outstanding concerns and believes this site development plan meets the requirements indicated within the municipal and associated design standards and specifications.

RECOMMENDED PLANNING AND ZONING COMMISSION FINDINGS AND MOTIONS
Recommended Findings
It is recommended that Planning and Zoning Commission send a recommendation for Approval with Conditions to Town Council that the requested Buc-ee’s Travel Center Site Development Plan be approved based upon the following findings:

1. The proposed development is consistent with the Johnstown Area Comprehensive Plan, and the approved Welty Ridge Outline Development Plan, as amended.

2. The proposed development is in substantial compliance with the Town’s municipal code, regulations, and requirements.

Recommended Motion
Based on the application received, associated submittal materials, and the preceding analysis, I move that the Planning & Zoning Commission Recommend Approval of the Buc-ee’s Travel Center Site Development Plan to the Town Council based upon the findings as stated above, and with the following conditions:

1. Final documents and reports shall be revised, as needed, to address any and all outstanding redlines and comments, to the satisfaction of the Town prior to commencing construction.
2. Final civil engineering construction plans and reports related to the Welty Ridge Subdivision be finalized and approved by the Town prior to commencing construction.

3. The Applicant shall enter into all appropriate agreements related to development activities and water and sewer service prior to construction of public improvements and issuance of any building permits.

Alternate Motion

Motion to Deny: “I move that the Planning & Zoning Commission recommend Denial of Buc-ee’s Travel Center Site Development Plan to the Town Council, based upon the following findings...”
The Community That Cares
johnstown.colorado.gov
P: 970.587.4664 | 450 S. Parish Ave, Johnstown CO 80534 | F: 970.587.0141
LANDSCAPE PLANTING NOTES:
1. ALL PLANTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED PRIOR TO THE START OF THE LANDSCAPE CONSTRUCTION, 5 FEET WILL BE DISTURBED FROM ALL EXISTING TREES BASE.
2. EXISTANCES OF PLANTS ATEDampie TOP-DIAM. SIDE OF ALL PLANTS ARE TO REMOVE THE EXISTING SITE.
3. PLANTS TO BE LEFT IN COLONIES WITH THE LANDSCAPE ARCHITECT OR IT SHALL BE ASSUMED THAT THE CONTRACTOR CAN ADJUST TO THE SITE.
4. ALL PLANTS ARE TO BE LEFT IN COLONIES WITH THE LANDSCAPE ARCHITECT FOR REVIEW AND ARRIVAL TO TORD. THE ARBUTUS CAN ADJUST TO THE SITE.
5. P AVA AND SHALL BE UPDATED AS NOTED AND DEDICATED TO THIS PROJECT.
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 Matchesline

3 Globe Spruce
4 Globe Spruce
3 Soft Leaf Yucca
3 Globe Spruce
14 Blue Rug Juniper
Buffalo Grass Sod

Re-vegetate all areas disturbed during construction.

Steel Edging

Buc-ee's
Johnstown

Project Location:
WCR 48 & INT. 25
Johnstown, CO

Owner:
Buc-ee's LTD

BLU Fish Collaborative, Inc.
P.O. Box 40792, Austin, TX 78704
Phone: (512)388-4115

02/18/2022

Professional Seal:

Date Sealed:

02/18/2022

Date Printed:

02/18/2022

Project Name:

Buc-ee's Johnstown

Sheet No.

001-21-10

Scale in Feet (1"=20'-0")

NORTH
RE-VEGETATE ALL AREAS DISTURBED DURING CONSTRUCTION

MATCHLINE
SEE L105

SCALE IN FEET (1"=20'-0")

NORTH
MATCHLINE

SEE L108

MATCHLINE

SEE L111

RE-VEGETATE ALL AREAS DISTURBED DURING CONSTRUCTION
LAND USE APPLICATION REFERRAL

DATE: January 11, 2022

JRC: ☒ Planning  ☒ Public Works  ☒ Town Engineer  ☒ Fire  ☒ Traffic
     ☐ Water Engineer ☐ Water Attorney ☐ Town Attorney ☐ Other: ______

Initial Submittal only – contact the planner for additional information

EXTERNAL AGENCIES:
☐ Mead  ☐ Milliken  ☐ Berthoud  ☐ Loveland  ☐ Greeley  ☐ Windsor
☐ Larimer Co  ☒ Weld Co  ☐ Aims CC  ☒ CDOT  ☐ CoPW  ☐ TRPR
☐ Weld RE-SJ  ☐ TSD  ☐ LTWD  ☐ NoCoWC  ☐ BT Conserv. ☐ ______

UTILITIES: ☒ TDS ☒ Xcel ☐ PVREA ☐ United Power

FROM: Kim Meyer, Director of Planning & Development
     kmeyer@johnstownco.gov

Applicant: Buc-cee’s LTD

Project: Buc-cee’s Final Subdivision

Submittal #: 2 – PICP’s only

Location: WCR 48 and Interstate 25

Reply by: Wednesday, January 28, 2022

This application is submitted for professional review and recommendation. Any comments or recommendations relevant to this request are appreciated.

If additional documentation is needed to complete a review, please email me at the address above.

X NO Comments.

☐ Comments:

All previous comments on the PICP’s have been adequately addressed with this submittal.

By: ____________________________________________  Date: _______01/26/2022_____

Charles M. Buck, PE, PTOE  Felsburg Holt & Ullevig

The Community That Cares
johnstown.colorado.gov
P: 970.587.4664 | 450 S. Parish Ave, Johnstown CO 80534 | F: 970.587.0141
Traffic Impact Study

Travel Center Johnstown
Johnstown, Colorado

Prepared for:
Buc-ee’s, LTD.

Kimley-Horn
Travel Center Johnstown

Johnstown, Colorado

Prepared for
Buc-ee’s, LTD
327 FM 2004
Lake Jackson, TX 77566

Prepared by
Kimley-Horn and Associates, Inc.
4582 South Ulster Street
Suite 1500
Denver, Colorado 80237
(303) 228-2300

November 2021

REVISED & ACCEPTED JANUARY 2022

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.
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1.0 EXECUTIVE SUMMARY

Travel Center Johnstown is a retail project proposed to be located in the southwest quadrant of
the Interstate 25 (I-25) and Weld County Road 48 (WCR-48)/State Highway 60 (SH-60)
interchange in Johnstown, Colorado. The project is located within the northeast quadrant of the
Welty Ridge development area approved as part of the Outline Development Plan (ODP)
process. The proposed travel center is anticipated to include an approximate 74,000 square foot
convenience market and a gas station containing 120 total fueling positions with 116 fueling
positions dedicated to passenger vehicles and four (4) fueling positions dedicated to diesel fuel
trucks. The project is anticipated to be completed within the next several years; therefore,
analysis was conducted for the 2023 short-term horizon as well as the 2040 long-term horizon.

The purpose of this study is to identify project traffic generation characteristics and project traffic
related impacts on the local street system to develop improvements required for the identified
impacts. The following intersections were incorporated into this traffic study in accordance with
Town of Johnstown, Weld County, and Colorado Department of Transportation (CDOT)
standards and requirements:

- WCR-48 and Commerce Drive
- WCR-48 and Gateway Circle
- WCR-48 and Gateway Drive
- WCR-48 and I-25 Southbound Ramps
- WCR-48 and I-25 Northbound Ramps
- WCR-48 and East I-25 Frontage Road

Regional access to the Travel Center Johnstown project will be provided by I-25. Primary
access to the project will be provided by WCR-48 while direct access to the project is proposed
from a public street access on the east side of the future extension of Commerce Drive and from
a private access aligning with Gateway Circle along the south side of WCR-48.

Distribution of site traffic on the street system was based on the area street system
characteristics, existing traffic patterns, existing and anticipated surrounding demographic
information, and the proposed access system for the project. The directional distribution of
traffic is a means to quantify the percentage of site-generated traffic that approaches the site
from a given direction and departs the site back to the original source.
Travel Center Johnstown is anticipated to generate a total of approximately 23,084 daily weekday trips with 1,220 of these trips occurring during the morning peak hour and 1,692 trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes the proposed Travel Center Johnstown project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

2023 Recommendations

- Direct access to the project is proposed from a public street access on the east side of the future extension of Commerce Drive and from a private access aligning with Gateway Circle along the south side of WCR-48. As part of this project or if not sooner as part of the Welty Ridge development, Commerce Drive will be extended south of WCR-48. As additional portions of Welty Ridge develop, the public access intersection along Commerce Drive will provide four legs and stop control with installation of R1-1 “STOP” signs is recommended along the eastbound and westbound approaches. Designated left turn lanes with 150 feet of length are recommended at all four approaches of the public street access with Commerce Drive.

- An I-25 and State Highway 60 / Weld County Road 48 Interchange Type Selection Report was prepared for CDOT Region 4 in December 2019. Based on this study, CDOT is currently in design stages of implementing a diverging diamond interchange (DDI) at the WCR-48 and I-25 interchange and is expected to be completed by 2023. With construction of this DDI, the E I-25 Frontage Road will be removed and essentially be served with a future south leg at the SH-60 and High Plains Boulevard intersection. Coinciding with the implementation of the diverging diamond interchange at I-25, two eastbound and westbound through lanes are proposed along WCR-48 extending through the project limits from Commerce Drive to I-25.

- As the future south leg is provided at the WCR-48 and Commerce Drive intersection, it is recommended that the northbound and southbound approaches provide a designated left turn lane and a shared through/right turn lane. A left turn lane and two through lanes are
proposed on the eastbound approach of this intersection while the westbound approach includes a left turn lane, one through lane, and a dropped right turn lane.

- A two-lane roundabout is proposed as part of this project at the intersection of WCR-48 and Gateway Circle. The eastbound and westbound approaches of the roundabout include two lanes while the northbound and southbound approaches include a single lane. However, the northbound approach of the proposed roundabout includes dual right turn lanes with the outside lane being a combination acceleration to deceleration lane with the I-25 Southbound Ramp to the east. The south leg of this intersection will provide full movement access to the proposed development.

- The intersection of WCR-48 and Gateway Drive is proposed to be restricted to right-in/right-out movements in association with this project and the future improvements associated with the interchange at WCR-48 and I-25. The approved Welty Ridge Outline Development Plan (ODP) identified a future south leg allowing full turning movements at the WCR-48 and Gateway Drive intersection. The current proposal is to amend the future south leg at the WCR-48 and Gateway Drive intersection and provide a south leg with full movement access at the WCR-48 and Gateway Circle intersection. This shift in full movement access to the west will provide additional spacing from the WCR-48 and I-25 interchange. An R3-2 "No Left Turn" sign should be placed under the stop sign on the southbound approach of the WCR-48 and Gateway Drive intersection while a R6-1R “One-Way” sign should be placed within the future raised median along WCR-48 due to this intersection being restricted to right-turn movements.

2040 Recommendations

- The intersection of WCR-48 and Commerce Drive is recommended to be restricted to three-quarter turning movements due to the proximity to the intersection of WCR-48 and Gateway Circle intersection. As remaining land within Welty Ridge is developed, a new Commerce Drive is proposed on the section line to the west of the existing Commerce Drive, and the future realigned intersection of WCR-48 and Commerce Drive should be signalized. There will be two public accesses to the Welty Ridge development from WCR-48: one a three-quarter access at the existing Commerce Drive intersection and the other will be a signalized access at the new Commerce Drive intersection. It is anticipated that a signal will be warranted at the new intersection of WCR-48 and Commerce Drive based on projected
2040 background volumes. Two eastbound and westbound through lanes with one northbound and southbound through lane are recommended to be provided at this new intersection alignment. In addition, separate left turn lanes on all four approaches and a separate northbound right turn lane are recommended at this intersection.

- At the proposed WCR-48 and Gateway Drive roundabout, an additional westbound through lane is identified for to provide the ultimate cross-section for WCR-48. The westbound approach will provide a separate left turn lane, a shared through/left, and a shared through/right turn lane entering the roundabout.

**General Recommendations**

- Any on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings and conform to Town of Johnstown, Weld County, and CDOT standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).
2.0 INTRODUCTION

Kimley-Horn has prepared this report to document the results of a traffic impact study of future traffic conditions associated with the proposed Travel Center Johnstown project to be located in the southwest quadrant of the I-25 and WCR-48/SH-60 interchange in Johnstown, Colorado. A vicinity map illustrating the project location with respect to the surrounding area is shown in Figure 1. The proposed travel center is anticipated to include an approximate 74,000 square foot convenience market and a gas station containing 120 total fueling positions with 116 fueling positions dedicated to passenger vehicles and four (4) fueling positions dedicated to diesel fuel trucks. A site plan for the proposed development is provided in Appendix H. The project is anticipated to be completed within the next several years; therefore, analysis was conducted for the 2023 short-term horizon as well as the 2040 long-term horizon.

The purpose of this study is to identify project traffic generation characteristics and project traffic related impacts on the local street system to develop improvements required for the identified impacts. The following intersections were incorporated into this traffic study in accordance with Town of Johnstown, Weld County, CDOT standards and requirements:

- WCR-48 and Commerce Drive
- WCR-48 and Gateway Circle
- WCR-48 and Gateway Drive
- WCR-48 and I-25 Southbound Ramps
- WCR-48 and I-25 Northbound Ramps
- WCR-48 and East I-25 Frontage Road

Regional access to the Travel Center Johnstown project will be provided by Interstate 25. Primary access to the project will be provided by WCR-48 while direct access to the project is proposed from a public street access on the east side of the future extension of Commerce Drive and from a private access aligning with Gateway Circle along the south side of WCR-48.
3.0 EXISTING CONDITIONS

3.1 Existing Study Area
The existing project site consists of vacant land with industrial uses directly north of the site. I-25 is located directly east of the site while the Town of Johnstown is in the extended area to the east. The surrounding area primarily consists of vacant land. Single family residences are located in the extended area to the east on both sides of SH-60. The land uses and roadway network surrounding the site are shown in the aerial on Figure 2.

3.2 Existing Roadway Network
WCR-48 and SH-60 share the same east-west alignment with WCR-48 being on the west side of I-25 and SH-60 being on the east side of I-25. WCR-48 and SH-60 extend eastbound and westbound with one through lane of travel in each direction. WCR-48 has a posted speed limit of 35 miles per hour while SH-60 provides a speed limit of 55 miles per hour.

WCR-48 and Commerce Drive operates as an unsignalized intersection with stop control on the southbound approach of Commerce Drive. The eastbound approach of this intersection consists of a shared left turn/through lane while the westbound approach consists of a shared through/right turn lane. The southbound approach provides a shared lane for left-turn and right-turn movements.

WCR-48 and Gateway Circle operates as an unsignalized intersection with stop control on the southbound approach of Gateway Circle. The eastbound approach of this intersection consists of a shared left turn/through lane while the westbound approach provides one through lane and a right turn lane. The southbound approach provides a shared lane for left-turn and right-turn movements.

WCR-48 and Gateway Drive operates as an unsignalized intersection with stop control on the southbound approach of Gateway Drive. The eastbound approach of this intersection consists of a shared left turn/through lane while the westbound approach consists of one through lane and a right turn lane. The southbound approach provides a shared lane for left-turn and right-turn movements.
The WCR-48/SH-60 and I-25 Southbound Ramp intersection is signalized. All three entering approaches of this intersection contains a single lane for shared movements. The south leg of this intersection is the entrance ramp to I-25 which provides one-way travel southbound.

The WCR-48/SH-60 and I-25 Northbound Ramp intersection is signalized with all three entering approaches of this intersection containing a single lane for shared movements. The north leg of this intersection is the entrance ramp to I-25 which provides one-way travel northbound.

SH-60 and E Interstate 25 Frontage Road operates as a signalized intersection while sharing a controller with the SH-60 and I-25 Northbound Ramp intersection. All four approaches of this intersection provide a single shared lane for all movements. The existing intersection lane configurations and control for the study area key intersections are shown in Figure 3.

### 3.3 Existing Traffic Volumes

Existing peak hour turning movement counts were conducted at the key intersections on Thursday, October 29, 2020. The counts were conducted in 15-minute intervals during the morning and afternoon peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. Existing turning movement counts are shown in Figure 4 with count sheets provided in Appendix A.

### 3.4 Adjusted Existing Traffic Volumes

The collected turning movement counts were conducted during the COVID-19 pandemic and were therefore compared to previous through volumes conducted in 2019 provided by the CDOT Online Transportation Information System (OTIS) to determine if a traffic volume adjustment was necessary to obtain normal condition traffic volumes. Based on the count comparison for the daily through volumes, existing peak hour counts adjusted to daily volumes based on the CDOT published Design Hourly Volume (DHV) percentage of 11 percent were less than the 2019 counts and projected 2020 volumes (2019 counts grown for one year). Therefore, it was determined that existing counts needed to be increased by approximately 26 percent to identify the normal conditions to account for COVID-19. Existing adjusted turning movement counts are shown in Figure 5 with the comparison counts and the count adjustment calculations provided in Appendix A.
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
EXISTING LANE CONFIGURATIONS

FIGURE 3
4.0 FUTURE CONDITIONS

4.1 Proposed Project Access and Future Roadway Improvements

Direct access to the project is proposed from a public street access on the east side of the future extension of Commerce Drive and from a private access aligning with Gateway Circle along the south side of WCR-48. A two-lane roundabout is proposed as part of this project at the intersection of WCR-48 and Gateway Circle. As part of this project or if not sooner as part of the Welty Ridge development, Commerce Drive will be extended south of WCR-48 and this intersection will remain full movement in the short-term. As Welty Ridge continues development, the intersection of WCR-48 and Commerce Drive is recommended to be restricted to three-quarter turning movements due to the proximity to the intersection of WCR-48 and Gateway Circle intersection. As remaining land within Welty Ridge is developed, a new Commerce Drive is proposed on the section line to the west of the existing Commerce Drive, and the future realigned intersection of WCR-48 and Commerce Drive should be signalized. There will be two public accesses to the Welty Ridge development from WCR-48: one a three-quarter access at the existing Commerce Drive intersection and the other will be a signalized access at the new Commerce Drive intersection.

An I-25 and State Highway 60 / Weld County Road 48 Interchange Type Selection Report was prepared for CDOT Region 4 in December 2019. Based on this study, CDOT is currently in design stages of implementing a diverging diamond interchange (DDI) at the WCR-48 and I-25 interchange and is expected to be completed by 2023. With construction of this DDI, the E I-25 Frontage Road will be removed and essentially be served with a future south leg at the SH-60 and High Plains Boulevard intersection. The current design plans for the DDI interchange are attached in Appendix B, and the proposed lane configurations have been utilized in analysis of this study.

4.2 Unspecified Development Traffic Growth

Based on information provided on the website for CDOT, the 20-year growth factor along SH-60 directly east of the study area is 1.56. This growth factor equates to an annual growth rate of approximately 2.25 percent per year. Based on this, a 2.25 percent annual growth rate was used to calculate future traffic volume estimates in 2023 at the study area intersections. In addition, CDOT is proposing a diverging diamond interchange at the I-25 ramps with WCR-48 and the future traffic projections from the I-25 and State Highway 60 / Weld County Road 48
Interchange Type Selection Report completed in December 2019 were utilized as background traffic volumes in 2040. These 2040 traffic projections were further refined to incorporate future traffic volumes from the Welty Ridge Outline Development Plan (ODP). Applicable documents from both of these studies, as well as traffic information from the CDOT Online Transportation Information System (OTIS) website are attached in Appendix B. The calculated background traffic volumes for 2023 and 2040 are shown in Figure 6 and Figure 7, respectively.
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
2040 BACKGROUND TRAFFIC VOLUMES

FIGURE 7
5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, trip generation estimates were developed using trip information from other travel center sites operated by the same ownership as this site. Data collected at nine (9) sites were used in developing average trips rates and to estimate trips for this site. It is important to note that due to the total number of fueling positions for this development, ITE data was not used for project trip generation estimates. The average number of fueling positions for the applicable use with ITE Trip Generation is 14 fueling positions which is well under the proposed 120 fueling positions for this travel center.

Since the project is a travel center adjacent to an interstate freeway, diverted link trips are expected with the proposed development. These diverted link trips are vehicles already on the roadway network that divert their route to stop at the proposed development while in route to another destination. Diverted trip rates were obtained from user specific data. A diverted link rate of 85 percent was applied for the morning peak hour and the afternoon peak hour for the proposed travel center. Travel Center Johnstown is anticipated to generate a total of approximately 23,084 daily weekday trips with 1,220 of these trips occurring during the morning peak and 1,692 trips occurring during the afternoon peak hour. Accounting for diverted trips, expected net new trips (non diverted trips) to the surrounding street network results in approximately 3,463 new weekday daily trips, of which 186 and 254 new trips are anticipated during the weekday morning and afternoon peak hours, respectively. The project traffic generation is shown in Table 1 while the trip generation calculation worksheet and traffic generation data for the sample sites is in Appendix C.

---

## Table 1 – Travel Center Johnstown Project Trip Generation

<table>
<thead>
<tr>
<th>Use and Size</th>
<th>Daily</th>
<th>Weekday Vehicle Trips</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Travel Center – 120 Fueling Positions</td>
<td>23,084</td>
<td></td>
<td>647</td>
<td>573</td>
</tr>
<tr>
<td>New Trips (non diverted trips)</td>
<td>3,463</td>
<td></td>
<td>97</td>
<td>86</td>
</tr>
<tr>
<td>Diverted Link Trips</td>
<td>19,621</td>
<td></td>
<td>550</td>
<td>487</td>
</tr>
</tbody>
</table>

### 5.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The new project trip distribution for the proposed development trips is illustrated in Figure 8 while the diverted trip distribution is illustrated in Figure 9.

### 5.3 Traffic Assignment

Traffic assignment was obtained by applying the distributions from Figure 8 and Figure 9 to the estimated traffic generation of the project shown in Table 1. The total traffic assignment is shown in Figure 10.

### 5.4 Total (Background Plus Project) Traffic

Project traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2023 horizon. Figure 11 illustrates the background plus project traffic volumes for the 2023 horizon at the study key intersections. The 2040 total full buildout traffic volumes for the study area are shown in Figure 12.
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
TRIP DISTRIBUTION

FIGURE 8
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
DIVERTED TRIP DISTRIBUTION
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
2023 TOTAL TRAFFIC VOLUMES

FIGURE 11
6.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn’s analysis of traffic operations in the vicinity of the site was conducted to determine potential capacity deficiencies in the 2023 and 2040 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual*.

6.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, common traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of LOS for signalized and unsignalized intersections.

**Table 2 – Level of Service Definitions**

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Signalized Intersection Average Total Delay (sec/veh)</th>
<th>Unsignalized Intersection Average Total Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≤ 10</td>
<td>≤ 10</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 10 and ≤ 20</td>
<td>&gt; 10 and ≤ 15</td>
</tr>
<tr>
<td>C</td>
<td>&gt; 20 and ≤ 35</td>
<td>&gt; 15 and ≤ 25</td>
</tr>
<tr>
<td>D</td>
<td>&gt; 35 and ≤ 55</td>
<td>&gt; 25 and ≤ 35</td>
</tr>
<tr>
<td>E</td>
<td>&gt; 55 and ≤ 80</td>
<td>&gt; 35 and ≤ 50</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 80</td>
<td>&gt; 50</td>
</tr>
</tbody>
</table>


Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for a signalized and four-way stop controlled intersection is defined for each approach and for the intersection. The intersection analysis was conducted using Synchro software with the analysis results reported using the Highway Capacity Manual (HCM) procedure.

---

6.2 Intersection Operational Analysis

Calculations for the LOS at the study key intersections are provided in Appendix D. The LOS analyses are based on the lane geometry and intersection control shown in Figure 2. The LOS analyses determine what improvements may be needed at the study area key intersections and proposed local street access to handle background traffic growth and project related traffic in the two study horizons. Existing cycle lengths and timing splits for the key signalized intersections were utilized in the existing condition. The short-term 2023 horizon was evaluated with future planned roadways improvements at the study area key intersections. These improvements include a diverging diamond interchange at WCR-48 and I-25 and the resultant widening of WCR-48, a two-lane roundabout at the WCR-48 and Gateway Circle intersection, and Commerce Drive being extended south of WCR-48. Synchro traffic analysis software was used to analyze the study area intersections for intersection delay and level of service. Sidra software was utilized to evaluate the proposed roundabout at the intersection of WCR-48 and Gateway Circle.

**WCR-48 & Commerce Drive (Existing Alignment)**

WCR-48 and Commerce Drive operates as an unsignalized intersection with stop control on the southbound approach of Commerce Drive. The movements at this intersection currently operate acceptably with LOS B or better during the morning and afternoon peak hours.

With the buildout of the project and the background Welty Project, Commerce Drive will extend south of WCR-48 to the project site. Based on planned improvements and the extension of Commerce Drive south of WCR-48, the northbound and southbound approaches of this intersection were evaluated with a designated left turn lane and a shared through/right turn lane in the short-term horizon. The eastbound approach of this intersection is proposed to include a left turn lane and two through lanes while the westbound approach will include a left turn lane, one through lane, and a dropped right turn lane. With planned improvements and the addition of project traffic, all movements at this intersection are anticipated to operate acceptably at LOS B or better during the peak hours in 2023.

By 2040, this intersection is recommended to be restricted to three-quarter movements and a second westbound through lane is proposed to be constructed. This restriction is due to the proximity to the intersection of WCR-48 and Gateway Circle intersection. As remaining land within Welty Ridge is developed, a new Commerce Drive is proposed on the section line to the
west of the existing Commerce Drive, and the future realigned intersection of WCR-48 and Commerce Drive should be signalized. There will be two public accesses to the Welty Ridge development from WCR-48: one a three-quarter access at the existing Commerce Drive intersection and the other will be a signalized access at the new Commerce Drive intersection. With this intersection being restricted to three-quarter movements by 2040, the intersection movements are anticipated to operate at LOS B or better during the morning and afternoon peak hours. Table 3 provides the results of the LOS at this intersection.

Table 3 – WCR-48 and Commerce Drive LOS Results

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(sec/veh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020 Existing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>7.5</td>
<td>A</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Approach</td>
<td>10.1</td>
<td>B</td>
<td>10.8</td>
<td>B</td>
</tr>
<tr>
<td>2023 Background #</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>7.5</td>
<td>A</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>9.7</td>
<td>A</td>
<td>10.3</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>8.8</td>
<td>A</td>
<td>9.0</td>
<td>A</td>
</tr>
<tr>
<td>2023 Background Plus Project #</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Left</td>
<td>11.8</td>
<td>B</td>
<td>12.2</td>
<td>B</td>
</tr>
<tr>
<td>Northbound Right</td>
<td>8.9</td>
<td>A</td>
<td>9.4</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>7.5</td>
<td>A</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td>Westbound Left</td>
<td>7.6</td>
<td>A</td>
<td>7.9</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>11.0</td>
<td>B</td>
<td>12.5</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>8.8</td>
<td>A</td>
<td>9.0</td>
<td>A</td>
</tr>
<tr>
<td>2040 Background ##</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Right</td>
<td>10.9</td>
<td>B</td>
<td>11.8</td>
<td>B</td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>8.1</td>
<td>A</td>
<td>8.7</td>
<td>A</td>
</tr>
<tr>
<td>Westbound Left</td>
<td>8.1</td>
<td>A</td>
<td>9.6</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>9.2</td>
<td>A</td>
<td>10.4</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background Plus Project ##</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Right</td>
<td>11.5</td>
<td>B</td>
<td>13.0</td>
<td>B</td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>8.1</td>
<td>A</td>
<td>8.7</td>
<td>A</td>
</tr>
<tr>
<td>Westbound Left</td>
<td>8.3</td>
<td>A</td>
<td>10.2</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>9.2</td>
<td>A</td>
<td>10.4</td>
<td>B</td>
</tr>
</tbody>
</table>

# = Proposed improvements and remaining full movement; ## = Restricted to three-quarter movements
WCR-48 & Gateway Circle

WCR-48 and Gateway Circle operates as an unsignalized intersection with stop control on Gateway Circle. The movements at this intersection currently operate acceptably with LOS B or better during peak hours.

The background condition (without project traffic) in 2023 and 2040 was evaluated with a standard stop control intersection and two eastbound and westbound through lanes due to the future widening of WCR-48 coinciding with the implementation of the diverging diamond interchange at I-25. Without the project and a standard T-intersection, this intersection is expected to operate acceptably in 2023; however, southbound left turn movements may experience long delays during the afternoon peak hour in 2040.

The total traffic volume condition (background plus project traffic) in 2023 was evaluated with the proposed two-lane roundabout associated with this project. The eastbound and westbound approaches of the roundabout include two lanes while the northbound and southbound approaches include a single lane. However, the northbound approach of the proposed roundabout includes dual right turn lanes with the outside lane being a combination acceleration to deceleration lane with the I-25 Southbound Ramp to the east. The south leg of this intersection will provide full movement access to the proposed development. With the proposed roundabout control associated with this project, this intersection is expected to operate acceptably with LOS A during the peak hours in the 2023 horizon.

By 2040, the ultimate roundabout configuration includes an additional westbound lane. The westbound approach configuration will consist of a left turn lane, a shared through/left, and a shared through/right. With this geometry, the roundabout is expected to operate acceptably with LOS D or better during the peak hours for the 2040 horizon. Of note, the future south leg of Gateway Circle at WCR-48 will only provide access to proposed travel center as providing cross access to the Welty Ridge development will likely overload the proposed roundabout. Table 4 provides the results of the LOS at this intersection.
Table 4 – WCR-48 and Gateway Circle LOS Results

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak Hour</td>
<td>PM Peak Hour</td>
</tr>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2020 Existing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>7.7</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>11.1</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>9.1</td>
<td>A</td>
</tr>
<tr>
<td>2023 Background #</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>7.8</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>13.4</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>8.9</td>
<td>A</td>
</tr>
<tr>
<td>2023 Background Plus Project ^</td>
<td>5.4</td>
<td>A</td>
</tr>
<tr>
<td>2040 Background #</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>9.3</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>25.1</td>
<td>D</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>10.5</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background Plus Project ^##</td>
<td>9.4</td>
<td>A</td>
</tr>
</tbody>
</table>

# = Addition of EBT Lane, Convert WBR to Shared WBT/R; ^ = Proposed Roundabout;
^ ## = Proposed Roundabout with Two Westbound Through Lanes
WCR-48 and Gateway Drive

WCR-48 and Gateway Drive operates as an unsignalized intersection with stop control on the southbound approach of Gateway Drive. All movements currently operate acceptable at LOS C or better during the peak hours under existing conditions.

The short term (2023) and long term (2040) horizons were based on the proposed lane configuration associated with the proposed development. As such, this intersection was evaluated with movements being restricted to right-in/right-out and with two eastbound and westbound through lanes due to the future widening of WCR-48 coinciding with the implementation of the diverging diamond interchange at I-25.

The left turn lane volumes at this intersection have been rerouted to the WCR-48 and Gateway Circle intersection due to this intersection being restricted to right-in/right-out movements. An R3-2 “No Left Turn” sign should be placed under the stop sign on the southbound approach of this intersection while a R6-1R “One-Way” sign should be placed within the future raised median along WCR-48 due to this intersection being restricted to right-turn movements. With the recommended lane configurations and control, all movements are anticipated to operate acceptably at LOS C or better during the peak hours in 2023 and 2040. Table 5 provides the results of the LOS this intersection.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2020 Existing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>8.0</td>
<td>A</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>12.8</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>9.2</td>
<td>A</td>
</tr>
<tr>
<td>2023 Background#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southbound Right</td>
<td>9.4</td>
<td>A</td>
</tr>
<tr>
<td>2023 Background Plus Project#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southbound Right</td>
<td>12.9</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southbound Right</td>
<td>11.5</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background Plus Project#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southbound Right</td>
<td>16.4</td>
<td>C</td>
</tr>
</tbody>
</table>

# = Provide two EB and WB through lanes and restrict to right-in/right-out movements
WCR-48/SH-60 and Interstate 25 Southbound Ramp

The WCR-48/SH-60 and I-25 Southbound Ramp intersection is signalized with all three entering approaches of this intersection containing a single lane for shared movements. The intersection currently operates at LOS C during the morning peak hour and afternoon peak hour.

By 2023, the previously referenced diverging diamond interchange is expected to be complete at this intersection. As such, this intersection was evaluated a diverging diamond interchange and the current improvement plans for this intersection can be referenced in Appendix B. With the proposed improvements, the intersection is anticipated to operate acceptably with LOS D or better during the peak hours throughout the 2040 horizon. Table 6 provides the results of the LOS at this intersection.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2020 Existing</td>
<td>23.5</td>
<td>C</td>
<td>26.2</td>
<td>C</td>
</tr>
<tr>
<td>2023 Background#</td>
<td>13.2</td>
<td>B</td>
<td>14.2</td>
<td>B</td>
</tr>
<tr>
<td>2023 Background Plus Project#</td>
<td>19.6</td>
<td>B</td>
<td>18.2</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background#</td>
<td>20.3</td>
<td>C</td>
<td>20.5</td>
<td>C</td>
</tr>
<tr>
<td>2040 Background Plus Project#</td>
<td>21.5</td>
<td>C</td>
<td>46.4</td>
<td>D</td>
</tr>
</tbody>
</table>

# = Diverging Diamond Interchange
WCR-48/SH-60 and Interstate 25 Northbound Ramp

The WCR-48/SH-60 and I-25 Northbound Ramp intersection is signalized with all three entering approaches of this intersection containing a single lane for shared movements. The intersection currently operates at LOS B during the peak hours.

By 2023, the previously referenced diverging diamond interchange is expected to be complete at this intersection. As such, this intersection was evaluated a diverging diamond interchange and the current improvement plans for this intersection can be referenced in Appendix B. With the proposed improvements, the intersection is anticipated to operate acceptably with LOS B during the peak hours throughout the 2040 horizon. Table 7 provides the results of the LOS at this intersection.

Table 7 – WCR-48/SH-60 & I-25 Northbound Ramp LOS Results

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2020 Existing</td>
<td>10.4</td>
<td>B</td>
</tr>
<tr>
<td>2023 Background#</td>
<td>15.5</td>
<td>B</td>
</tr>
<tr>
<td>2023 Background Plus Project#</td>
<td>17.2</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background#</td>
<td>19.0</td>
<td>B</td>
</tr>
<tr>
<td>2040 Background Plus Project#</td>
<td>19.3</td>
<td>B</td>
</tr>
</tbody>
</table>
SH-60 and E I-25 Frontage Road

SH-60 and I-25 Frontage Road operates as a signalized intersection. All four approaches consist of a shared lane for all movements. With the current control and geometry, the existing intersection operates acceptably at LOS B during the peak hours.

With the buildout of the diverging diamond interchange, the E Interstate 25 Frontage Road traffic will be removed; therefore, only the existing condition was evaluated at this intersection. Table 8 provides the results of the LOS analysis at this intersection during existing conditions.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2020 Existing</td>
<td>13.1</td>
<td>B</td>
</tr>
</tbody>
</table>
**Commerce Drive Public Street Access Intersection**

With completion of the Travel Center Johnstown project, access to the site is proposed from a public street access on the east side of the future extension of Commerce Drive (south of WCR-48) and from a private access aligning with Gateway Circle along the south side of WCR-48 (previously evaluated as the WCR-48 and Gateway Circle intersection). The proposed public street access along Commerce Drive is located approximately 700 feet (measured center to center) south of WCR-48.

With buildout of the entire Welty Ridge project, the Commerce Drive and Public Street Access intersection is proposed to be a four-legged intersection with separate left turn lanes and a shared through/right turn lane on each approach. The eastbound and westbound approaches of this intersection are recommended to operate under stop control with installation of R1-1 “STOP” signs. This intersection may only provide a north and east leg in the interim if the proposed project constructs prior to surrounding development within Welty Ridge. With the recommended lane configurations and control, all movements are anticipated to operate an acceptable level of service during the peak hours throughout the 2040 horizon. **Table 9** provides the results of the LOS at this intersection.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td><strong>2023 Background Plus Project</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southbound Left</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td>Westbound Right</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td><strong>2040 Background Plus Project</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Left</td>
<td>7.6</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>18.6</td>
<td>C</td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>12.0</td>
<td>B</td>
</tr>
<tr>
<td>Westbound Left</td>
<td>15.0</td>
<td>C</td>
</tr>
<tr>
<td>Westbound Approach</td>
<td>11.0</td>
<td>B</td>
</tr>
<tr>
<td>Southbound Left</td>
<td>8.1</td>
<td>A</td>
</tr>
</tbody>
</table>
WCR-48 and Commerce Drive (Future Intersection)

By 2040, it is recommended that a new Commerce Drive roadway follow the section line west of the existing Commerce Drive to provide additional future project access to the Welty Ridge Project and the Travel Center Johnstown project. With the new realigned intersection of WCR-48 and Commerce Drive, the existing intersection of WCR-48 and Commerce Drive is recommended to be restricted to three-quarter movements. This restriction is due to the proximity to the intersection of WCR-48 and Gateway Circle intersection. There will be two public accesses to the Welty Ridge development from WCR-48: one a three-quarter access at the existing Commerce Drive intersection and the other will be a signalized access at the new Commerce Drive intersection.

A MUTCD Four-Hour signal warrant was evaluated for the long-term background volumes. It was determined the morning peak hours do not meet the threshold for requiring signalization, but it is anticipated that the shoulder afternoon hours of 3:00 to 4:00 PM and 6:00 to 7:00 PM may meet signal warrants with the third and fourth hour. Therefore, the intersection was analyzed as a signalized intersection with separate eastbound and westbound left turn lanes with two through lanes in each direction. The signal warrant analysis worksheet is attached in Appendix F. The northbound approach will need a left turn lane, a through lane, and a right turn lane, while the southbound approach can provide a left turn lane and a shared through/right turn lane. With the recommended lane configurations and control, the intersection is anticipated to operate at LOS C during the peak hours throughout the 2040 horizon. Table 10 provides the results of the LOS at this intersection.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>2040 Background</td>
<td>29.0</td>
<td>C</td>
</tr>
<tr>
<td>2040 Background Plus Project</td>
<td>29.0</td>
<td>C</td>
</tr>
</tbody>
</table>
6.3 Queue Analysis

A vehicle queuing analysis was conducted for turn lanes at the study area key intersections. Results were obtained from the 95th percentile queue lengths obtained from the Synchro analysis and Sidra. Queue length calculations for unsignalized intersections are provided within the level of service operational sheets provided in Appendix D and Appendix E for signalized intersections. Results of the queuing analysis and recommendations at the study area intersections are provided in Table 11.

<table>
<thead>
<tr>
<th>Intersection Turn Lane</th>
<th>Existing Turn Lane Length (feet)</th>
<th>2023 Calculated Queue Length (feet)</th>
<th>2023 Recommended Turn Lane Length (feet)</th>
<th>2040 Calculated Queue Length (feet)</th>
<th>2040 Recommended Turn Lane Length (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCR-48 &amp; Commerce Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Right</td>
<td>DNE</td>
<td>25’</td>
<td>150’</td>
<td>-</td>
<td>C</td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>DNE</td>
<td>25’</td>
<td>150’</td>
<td>50’</td>
<td>150’</td>
</tr>
<tr>
<td>Westbound Left</td>
<td>DNE</td>
<td>25’</td>
<td>150’ (*275’)</td>
<td>50’</td>
<td>150’ (*275’)</td>
</tr>
<tr>
<td>Westbound Right</td>
<td>DNE</td>
<td>25’</td>
<td>C (*275’)</td>
<td>25’</td>
<td>150’ (*275’)</td>
</tr>
<tr>
<td>Southbound Right</td>
<td>DNE</td>
<td>25’</td>
<td>150’</td>
<td>25’</td>
<td>C</td>
</tr>
<tr>
<td>WCR-48 &amp; Gateway Circle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>DNE</td>
<td>39’</td>
<td>C (* 275’)</td>
<td>607’</td>
<td>C (* 275’)</td>
</tr>
<tr>
<td>Westbound Approach</td>
<td>DNE</td>
<td>55’</td>
<td>C (450’)</td>
<td>73’</td>
<td>C (450’)</td>
</tr>
<tr>
<td>WCR-48 &amp; I-25 Southbound Ramp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>DNE</td>
<td>285’</td>
<td>C (* 500’)</td>
<td>586’</td>
<td>C (* 500’)</td>
</tr>
<tr>
<td>Westbound Approach</td>
<td>DNE</td>
<td>163’</td>
<td>C (* 575’)</td>
<td>571’</td>
<td>C (* 575’)</td>
</tr>
<tr>
<td>WCR-48 &amp; I-25 Northbound Ramp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>DNE</td>
<td>87’</td>
<td>C (* 575’)</td>
<td>181’</td>
<td>C (* 575’)</td>
</tr>
<tr>
<td>Westbound Approach</td>
<td>DNE</td>
<td>130’</td>
<td>C</td>
<td>304’</td>
<td>C</td>
</tr>
<tr>
<td>Commerce Drive Public Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbound Left</td>
<td>-</td>
<td>-</td>
<td>25’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>-</td>
<td>-</td>
<td>50’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>Westbound Left</td>
<td>-</td>
<td>-</td>
<td>25’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>Southbound Left</td>
<td>-</td>
<td>-</td>
<td>25’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>WCR-48 &amp; New Commerce Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastbound Left</td>
<td>-</td>
<td>-</td>
<td>13’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>Westbound Left</td>
<td>-</td>
<td>-</td>
<td>178’</td>
<td>200’</td>
<td></td>
</tr>
<tr>
<td>Northbound Left</td>
<td>-</td>
<td>-</td>
<td>178’</td>
<td>200’</td>
<td></td>
</tr>
<tr>
<td>Northbound Right</td>
<td>-</td>
<td>-</td>
<td>70’</td>
<td>150’</td>
<td></td>
</tr>
<tr>
<td>Southbound Left</td>
<td>-</td>
<td>-</td>
<td>53’</td>
<td>150’</td>
<td></td>
</tr>
</tbody>
</table>

DNE = Does Not Exist; C = Continuous Lane; (* XX’) = Separation Distance from Adjacent Intersection (measured edge to edge)

As shown in the vehicle queuing table, all vehicle queues are expected to be contained within the proposed turn lane lengths as well as critical through lane approaches without spilling back into adjacent intersections in 2023. The westbound left turn lane at the WCR-48 and Commerce Drive intersection is expected to have one (1) vehicle queue during the peak hour in 2023 and
two (2) vehicles queued during the peak hour in 2040; therefore, vehicles are not expected to extend into the proposed roundabout intersection of WCR-48 and Gateway Circle located approximately 275 feet to the east (measured edge to edge). Likewise, the eastbound approach of the proposed roundabout intersection of WCR-48 and Gateway Circle is not expected to extend into the proposed intersection of WCR-48 and Commerce Drive located approximately 275 feet to the west (measured edge to edge) in 2023. If 2045 volumes are realized, the eastbound approach could extend beyond the future three-quarter WCR-48 and Commerce Drive intersection.

6.4 Vehicle Weave Analysis
Highway Capacity Software was utilized to determine the weaving maneuver level of service for eastbound approach at the I-25 Southbound Ramps from the intersection of WCR-48 and Gateway Circle. It should be noted that the outside northbound right turn lane at the WCR-48 and Gateway Circle intersection is proposed to provide an acceleration lane designated for southbound I-25 traffic and will be signed appropriately for exclusive access to southbound I-25. The inside northbound right turn lane at the WCR-48 and Gateway Circle intersection will provide a yield condition; therefore, should not result in any vehicle weaving. However, in the event that a small volume of northbound right turn movements in the outside lane transition out of the acceleration lane and do not gain access to southbound I-25, a vehicle weaving analysis was performed in the revised traffic study. The acknowledged source for determining overall weaving capacity is the Sixth Edition of the *Highway Capacity Manual (HCM)*. A one-sided weaving segment was evaluated based Chapter 13 of the HCM. As such, the weaving analysis reports that the weave maneuver is expected to operate with LOS B during both the morning and afternoon peak hours in 2040. The weaving analysis outputs are attached in Appendix F.
6.5 WCR-48 and Gateway Drive Alternative Analysis

An alternative analysis for the WCR-48 and Gateway Drive intersection has been provided due to the developments north of WCR-48 pursuing signalization of this intersection. Existing peak entering and exiting peak hour traffic volumes plus future redevelopment traffic was utilized for the alternative signalized analysis of the WCR-48 and Gateway Drive intersection. The 2040 traffic volumes projections along WCR-48 from this study were utilized in the alternative analysis; however, the volumes were refined to account for allowing for eastbound and southbound left turn movements at this intersection. CDOT has expressed concerns with allowing full turning movements and signalized control at the WCR-48 and Gateway Drive intersection due to the proposed spacing from the future diverging diamond southbound ramps with I-25. The future southbound ramp at I-25 is proposed to be located approximately 500 feet east of the Gateway Drive intersection with WCR-48 (measured edge to edge and 600 feet center to center). It should be noted that Johnstown’s access control policy guidelines along an arterial roadway have a spacing of at least a quarter mile (1,320 feet) between signals. If the WCR-48 and Gateway Drive intersection is signalized, the spacing to the I-25 Southbound Ramp only provides approximately 600 feet (0.11 miles < 0.25 miles).

An analysis has been completed with the WCR-48 and Gateway Drive intersection operating with signal control in 2040 during the morning and afternoon peak hour. As shown in Table 12, the signalized intersection of WCR-48 and Gateway Drive is anticipated to operate acceptably with LOS C during the morning peak hour and LOS D during the afternoon peak hour in 2040.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>2040 Background Plus Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delay (sec/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td></td>
<td>24.9</td>
<td>C</td>
</tr>
</tbody>
</table>

In addition, 95th percentile queue lengths have been reported and compared to the separation distance to adjacent intersections and is documented in Table 13. With 2040 future traffic projections and signal control at the WCR-48 and Gateway Drive intersection, vehicle queues at the westbound approach of the WCR-48 and Gateway Drive intersection are expected to extend beyond the southbound ramp of the future diverging diamond interchange (DDI). The reported queue is 856 feet while the distance between the west DDI is only 500 feet (measured edge to edge). In addition, the eastbound approach at the west DDI intersection has a projected queue
of 586 feet which would extend back into the WCR-48 and Gateway Circle intersection as only
500 feet of separation (measured edge to edge) is anticipated to be provided between these two
intersections.

Table 13 – WCR-48 & Gateway Drive Additional Queue Results

<table>
<thead>
<tr>
<th>Intersection Turn Lane</th>
<th>Length Between Adjacent Intersections (feet – edge to edge)</th>
<th>2040 Calculated Queue Length (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCR-48 &amp; Gateway Circle Westbound Approach</td>
<td>450’ from Gateway Drive</td>
<td>74’ (PM)</td>
</tr>
<tr>
<td>WCR-48 &amp; Gateway Drive Eastbound Approach</td>
<td>450’ from Gateway Circle 500’ to DDI</td>
<td>339’ (PM) 856’ (PM)</td>
</tr>
<tr>
<td>WCR-48 &amp; I-25 Southbound Ramp Eastbound Approach</td>
<td>500’ to DDI</td>
<td>586’ (PM)</td>
</tr>
</tbody>
</table>

The intersection level of service and vehicle queue output sheets for the alternative signalized
analysis of the WCR-48 and Gateway Drive intersection are included in Appendix G. The Town
of Johnstown and CDOT could consider monitoring traffic volumes in the future to determine if
the intersection of WCR-48 and Gateway Drive should be restricted to right-in/right-out
movements.

6.6 Improvement Summary

Based on the results of the intersection operations and turn lane queuing analysis, improvements were identified as being needed at key study intersections throughout the long
term 2040 twenty-year planning horizon. These improvements are summarized in Figure 12 for
the 2023 horizon and Figure 13 for the 2040 horizon.
TRAFFIC BALANCE

TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
2023 RECOMMENDED INTERSECTION LANES AND CONTROL

FIGURE 13

LEGEND
- Study Area Key Intersection
- Roundabout
- Yield Controlled Approach
- Signalized Intersection
- Stop Controlled Approach
- Improvement
- 100’ Turn Lane Length (feet)
TRAVEL CENTER JOHNSTOWN
JOHNSTOWN, COLORADO
2040 RECOMMENDED INTERSECTION LANCES AND CONTROL

FIGURE 14
7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the proposed Travel Center Johnstown project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

**2023 Recommendations**

- Direct access to the project is proposed from a public street access on the east side of the future extension of Commerce Drive and from a private access aligning with Gateway Circle along the south side of WCR-48. As part of this project or if not sooner as part of the Welty Ridge development, Commerce Drive will be extended south of WCR-48. As additional portions of Welty Ridge develop, the public access intersection along Commerce Drive will provide four legs and stop control with installation of R1-1 “STOP” signs is recommended along the eastbound and westbound approaches. Designated left turn lanes with 150 feet of length are recommended at all four approaches of the public street access with Commerce Drive.

- An I-25 and State Highway 60 / Weld County Road 48 Interchange Type Selection Report was prepared for CDOT Region 4 in December 2019. Based on this study, CDOT is currently in design stages of implementing a diverging diamond interchange (DDI) at the WCR-48 and I-25 interchange and is expected to be completed by 2023. With construction of this DDI, the E I-25 Frontage Road will be removed and essentially be served with a future south leg at the SH-60 and High Plains Boulevard intersection. Coinciding with the implementation of the diverging diamond interchange at I-25, two eastbound and westbound through lanes are proposed along WCR-48 extending through the project limits from Commerce Drive to I-25.

- As the future south leg is provided at the WCR-48 and Commerce Drive intersection, it is recommended that the northbound and southbound approaches provide a designated left turn lane and a shared through/right turn lane. A left turn lane and two through lanes are proposed on the eastbound approach of this intersection while the westbound approach includes a left turn lane, one through lane, and a dropped right turn lane.
• A two-lane roundabout is proposed as part of this project at the intersection of WCR-48 and Gateway Circle. The eastbound and westbound approaches of the roundabout include two lanes while the northbound and southbound approaches include a single lane. However, the northbound approach of the proposed roundabout includes dual right turn lanes with the outside lane being a combination acceleration to deceleration lane with the I-25 Southbound Ramp to the east. The south leg of this intersection will provide full movement access to the proposed development.

• The intersection of WCR-48 and Gateway Drive is proposed to be restricted to right-in/right-out movements in association with this project and the future improvements associated with the interchange at WCR-48 and I-25. The approved Welty Ridge Outline Development Plan (ODP) identified a future south leg allowing full turning movements at the WCR-48 and Gateway Drive intersection. The current proposal is to amend the future south leg at the WCR-48 and Gateway Drive intersection and provide a south leg with full movement access at the WCR-48 and Gateway Circle intersection. This shift in full movement access to the west will provide additional spacing from the WCR-48 and I-25 interchange. An R3-2 “No Left Turn” sign should be placed under the stop sign on the southbound approach of the WCR-48 and Gateway Drive intersection while a R6-1R “One-Way” sign should be placed within the future raised median along WCR-48 due to this intersection being restricted to right-turn movements.

2040 Recommendations

• The intersection of WCR-48 and Commerce Drive is recommended to be restricted to three-quarter turning movements due to the proximity to the intersection of WCR-48 and Gateway Circle intersection. As remaining land within Welty Ridge is developed, a new Commerce Drive is proposed on the section line to the west of the existing Commerce Drive, and the future realigned intersection of WCR-48 and Commerce Drive should be signalized. There will be two public accesses to the Welty Ridge development from WCR-48: one a three-quarter access at the existing Commerce Drive intersection and the other will be a signalized access at the new Commerce Drive intersection. It is anticipated that a signal will be warranted at the new intersection of WCR-48 and Commerce Drive based on projected 2040 background volumes. Two eastbound and westbound through lanes with one northbound and southbound through lane are recommended to be provided at this new...
intersection alignment. In addition, separate left turn lanes on all four approaches and a separate northbound right turn lane are recommended at this intersection.

- At the proposed WCR-48 and Gateway Drive roundabout, an additional westbound through lane is identified for to provide the ultimate cross-section for WCR-48. The westbound approach will provide a separate left turn lane, a shared through/left, and a shared through/right turn lane entering the roundabout.

**General Recommendations**

- Any on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings and conform to Town of Johnstown, Weld County, and CDOT standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).