EXHIBIT A

Panera Bread PUD Development Plan
Staff Report

APPLICANT'S PROJECT NARRATIVE



Panera Bread at Dillon Ridge CUP/Replat/An Amendment to a Portion of The Ridge at Dillon PUD

February 25, 2019

A. Project Description

This application is a major Planned Unit Development amendment of The Ridge at Dillon PUD. The Point at Dillon Ridge Limited is proposing to develop a retail outlet for Panera Bread Bakery Cafe on lots 9R-1 and 10R-1 of The Ridge at Dillon PUD. These two lots will be combined to accommodate the retail outlet and necessary parking on a single lot. This will require a replat of the lot.

B. The Site

The parcels are located near the union of Interstate 70 and Highway 6. The parcels are on the west end of The Ridge at Dillon retail subdivision off Dillon Ridge Road.

The development is to consist of a single 4,530 s.f. building, drive through window access, and parking for 47 vehicles. Due to parking pressure, 17 parking spaces were built on this site to accommodate adjacent uses. These spaces are not counted in the total parking count for this project. This project exceeds the total requirement of parking spaces for both use categories of restaurant, sit-down and restaurant, drive-in. See below (D.) for explanation of the drive-thru window as a conditional use.

The grade of lots 9R-1 and 10R-1drops abruptly to the north to Little Beaver Trail, requiring retaining walls to accommodate the building and parking. The development is proposing to change the PUD to allow a single 14-15' tall retaining wall as opposed to two 8' retaining walls. The disturbance caused by the retaining wall construction is to be reclaimed using native grasses and plantings. A combination of deciduous and evergreen trees are to be planted to soften the retaining wall as well as the north face of the retail shop.

The Landscape Plan follows the Dillon Municipal Code to determine the quantity and location of the proposed landscape. No variance for the code is being requested.

The Snow Storage Plan highlights the areas available to deposit snow. These areas are to be vegetated in native grasses and wildflowers to minimize damage to other landscape solutions. The drive through aisle, walkways and patios are to be heated to melt snow in those areas.

The dead end parking lot proved to be a challenge for accommodating delivery and fire access. Both the ingress and egress drives for the drive through are widened to allow "hammerhead" type turns. The movement of the delivery truck requires a back-in movement toward the trash enclosure, requiring the use of painted islands instead of curbed islands at the drive aisle intersection. The egress of the drive through was widened to allow emergency vehicles to turn around.

This project is expected to begin construction upon approval and issuance of a building permit, in spring of 2019, weather permitting. Drainage and utility improvements are to be the first items to be constructed.

C. The Building

The design of the Panera Bread aims to create an inviting building that appropriately responds to its surroundings.

This building aims to engage pedestrian traffic by providing a large expanse of glass at the main entry corner as well as providing large windows that visually connect people to the bakery and the dining areas. The main entry is positioned in a way that it faces toward all incoming car and pedestrian traffic. The dining area is recessed from the other parts of the building creating an outdoor public gathering space at the front of the building.

The building is divided into a clear BASE (a stacked stone that provides visual solidity and connection to its mountainous surroundings), MIDDLE (using varied materials, planes, and colors all at the pedestrian level), TOP (a large gable roof with wide overhangs and parapets with a prominent cap make up the roof). This building makes use of exposed structural glulam's with cedar brackets to help define the large gable roof. Materials vary (but include stacked stone, engineered cedar wood siding, standing seam metal roof, earth tone painted eifs, dark bronze aluminum framing & sunshades, earth tone canvas awnings) and are used to help define the functions of the interior spaces in conjunction with various plane changes.

Precedent for the building includes elements from both mountain and lakestyle buildings, as well as historic homes and main street buildings from surrounding towns. Pulling on features such as natural materials, pronounced roof form, tall expanses of glass, and defined entries.

Building signage is to consist of 12" to 24" internally lit lettering on each plane of the building face. The total square footage of this type of signage is 217.5 sq. ft. In addition to external building signs, an internal 5.8 s.f. sign will be displayed at the building entrance. The drive-through will be supplied with internally lit directional signs and menu signs. This amount of signage is beyond the 75 s.f. allowed in the Sign Zone B for a single tenant building, therefore, we are asking to amend the PUD to allow this amount of signage for Panera Bread.

D. Conditional Use Permit Criteria (Drive-Thru Window Service)

- (1) Drive-in facilities are listed as a conditional use within the Commercial zone.
- (2) The parcel is suitable as it is a vacant property adjacent to existing development with anticipated shared detention and interconnectivity between parking lots. The slopes and topography have been considered, similar to how they were considered with the adjacent, existing development.
- (3) The drive-thru window service will not have significant adverse impacts on the air or water quality of the community.
- (4) The drive-thru window service will not substantially limit, impair or preclude the use of surrounding properties. The drive-thru lane is tucked back behind the building with adequate back-up space and will not impair the parking/access to surrounding uses. Additionally, this parcel is the "last" parcel at the end of a development that cannot extend any further.
- (5) Public utilities are available to the site and are extended as necessary to accommodate the proposed restaurant.

EXHIBIT B

Panera Bread PUD Development Plan
Staff Report

DEVELOPMENT REVIEW CHECKLIST



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Town of Dillon Land Development Code Application Review Checklist

Panera Bread F	ame of Application: Inera Bread PUD Development Plan ARTICLE III - Zoning Districts				
Comp	leted?				
YES	NO				
\boxtimes		Sec. 16-3-160 Commercial (C) Zone. In the C zone, the following regulations shall apply:			
		(1) Purpose. The purpose of this zone is to provide areas suitable and desirable for a wide range of auto-oriented commercial and business uses in compact clusters adjacent to major thoroughfares. This district is intended as a commercial area containing retail, offices and personal service establishments. This area should serve automobile travelers, but should also be designed to allow pedestrian and bicycle access. Development in this district should not be strip commercial in nature, but should have internal circulation drawing traffic off the street. Individual access for individual uses is discouraged. Development is encouraged to promote high quality design, attractive landscaping and signage. Uses in this district should typically be those serving the traveling public or those that require a larger area than can be provided in the core area. Uses in this district should not necessarily compete with core area businesses, but should provide other services to the public.			
YES	NO	 (2) Permitted uses. The following uses and their accessory uses are permitted and may be allowed by the Town when in conformance with the provisions of this Chapter. a. Automobile services. b. Medical or dental clinic. c. Entertainment. d. Personal services. e. Offices. f. Restaurants. g. Retail stores. 			



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h. Hotels, motels, inns or other similar uses at a density established in the RH zoning district.

i. Accessory uses to any permitted use in the C zone, including but not limited to decks; patios; outdoor seating; outdoor food and beverage service; outdoor entertainment; playgrounds; temporary structures; off-street parking or loading; drive-in windows; storage and display of nursery plants, shrubs or trees; and displays of new or used automobiles, trailers, trucks, boats or other mobile equipment.

j. Retail marijuana stores in accordance with <u>Chapter</u> 6 of this Code.

YES NO

(3) Conditional uses. The following uses and their accessory uses may be permitted if in conformance with the intent of this Chapter, subject to the provisions of Article V, Division 3, and after an appropriate review has been conducted:

- a. Child care facilities.
- b. Churches.
- c. Multi-family dwelling units at the density established for dwelling units within the RM zone.
- d. Drive-in facilities.
- e. Wholesale trade class 1 and wholesale trade class 2
- f. Pawnshops in Accordance with <u>Chapter 6</u> of the Dillon Municipal Code and the following criteria:

i. No Pawnbroker shall operate a business within three hundred (300) feet from the following uses: a Church; Land Zoned as Parks and Opens Space (POS); a residential zoning district, regardless of jurisdiction; a Residential Use, unless the residential use is within the Mixed Use (MU) or Commercial (C) zoning districts and it is not in the same building as a Pawnshop. Under no circumstances shall a Pawnshop be located in the same building as a residential use; and no Pawnshop shall be in the same building as a pediatrician's office or a building having rooms for boarding.

ii. No Pawnbroker shall operate a business within one thousand (1,000) feet of: a school; a Child Care Facility or Child Care Center, except for a Child Care Facility or a Child Care Center operated as an approved Home Occupation in a Residential Zoning District; a College Campus, whether a primary campus or not; a correctional institution, rehabilitation center, or Halfway House; or a Public Housing Project owned and operated by a government agency.

iii. Measurement of Setbacks: For the purposes of this Section, the distance between a Pawnshop and any of the restricted uses stipulated shall be measured as follows: without regard to intervening structures, objects or Town limits, from the closest



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property line of the structure in which the Pawnshop is located to the nearest property line of the other use.

The building proposes a Drive-In Facility which is a Conditional Use in the Commercial (C) Zone District. The application requires a Conditional Use Permit to show conformance with the intent of this Chapter.

YES	NO	
		(4) Residential uses. Residential uses shall only be allowed as conditional uses if they meet the following standards and criteria:
		a. The residential uses do not exceed forty percent (40%) of the square footage of the total project nor exceed fifty percent (50%) of the square footage of any one (1) building within a project.
		b. The residential uses are located either above the first floor or, if located on the first floor, do not occupy, in the determination of the Commission, a primary building facade, which is generally those facades that face the primary commercial parking lot intended to serve the project, or face public rights-of-way from which pedestrian access to the commercial or other approved primary uses is provided. c. The residential uses are provided with private yards or outdoor open space areas, a minimum of
		two hundred (200) square feet in size per unit, located immediately adjacent to the residential units. This may be on-grade or provided through the use of decks and/or balconies.
		d. Parking for the residential uses shall be distinct from any other parking on-site, shall be in a separate area whenever possible and shall be signed for the use of the residents only. No required residential parking may be off-site, nor shall its construction be deferred to a later date.
N/A		
YES	NO	(5) Yards. Except as provided in Articles V and XIII, yards shall be as follows:
		a. Front yards and street side yards shall be a minimum of twenty-five (25) feet.
		b. Yards abutting a residential zone shall be twenty-five (25) feet.
		c. Side yards shall be ten (10) feet.
		d. Rear yards shall be twenty (20) feet.



YES	NO	
		 (6) Building heights. a. Except as provided in Articles V and XIII, no building shall exceed a height of forty (40) feet. b. For all commercial development, including commercial development containing other approved uses, the site may be regraded to create building pads necessary for the logical development of the site. When such pads are created, they shall be utilized by the Town and the applicant to determine allowed building height. In no instance shall building pads be created that are not in keeping with the overall character of the surrounding neighborhood, nor shall a site be filled solely to raise the height of a building.
YES	NO	 (7) Limitations on use. a. Wholesale trade class 1 uses shall not be allowed on Lake Dillon Drive unless such uses include a retail store or restaurant component which faces and fronts on the Lake Dillon Drive portion of the building containing the wholesale trade class 1 use. b. Wholesale trade class 2 uses shall not be allowed on Lake Dillon Drive.



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ARTICLE IV - Supplemental Zoning Provisions

YES	NO	Sec. 16-4-10 Building components extending into setbacks. Cornices, canopies, eaves or similar architectural features may extend into a required setback not more than two (2) feet. Fire escapes may extend into a required rear yard not more than six (6) feet.
YES	NO	Sec. 16-4-20 Use of temporary structures. No trailer, tent, shack, garage, barn or other outbuilding shall at any time be used for permanent human habitation and may temporarily be used only for a period not to exceed ninety (90) days during construction of the principal building, and after the issuance of a Class IV permit.
YES	NO	Sec. 16-4-30 Lot area included in area calculations. No part of an area required for a lot for the purpose of complying with the provisions of this Chapter shall be included as an area or width for another lot, except as part of a planned unit development.
YES	NO	Sec. 16-4-40 Accessory apartments and secondary units. A secondary residential unit or accessory apartment may be permitted in the RE, RL, RM and RH zones in a single-family residence, subject to the following provisions: (1)The Planning and Zoning Commission shall review and approve, under the Level III process, a site plan showing the location of the unit. (2)The property owner shall pay all required water and sewer tap fees



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- (3) The unit shall meet all building code requirements.
- (4) Two (2) parking spaces shall be provided per unit, and such parking area shall be landscaped to buffer parking from neighboring properties.
- (5) The habitable portion of the accessory apartment is not greater than nine hundred (900) square feet in size, nor is it more than onethird (1/3) the size of the heated living area of the primary residential unit.
- (6) A restrictive covenant is filed stating the unit will not be subdivided into a separate ownership unit from the primary unit.
- (7) The unit is deed restricted against utilization as a short-term rental, which means it may not be rented for periods of time of less than six (6) months.
- (8) The unit design is compatible with the neighborhood and the principal structure.
- (9) The unit may be a separate building from the primary structure, when placed above a freestanding garage, or on lots greater than one (1) acre.

N/A

YES	NO —	
\boxtimes		Sec. 16-4-50 Fences, hedges and walls.

Fences, hedges and walls may be permitted in the required setback in all zoning districts subject to the following conditions:

- (1) Fences or walls may not be placed in any public rights-of-way.
- (2) No fence, wall or hedge shall be constructed or maintained in a front setback that exceeds forty-two (42) inches in height from ground level.
- (3) No fence shall be permitted to exceed seven (7) feet in height in all other yards, except as herein set forth.
- (4) No fence, hedge or wall shall be constructed that obstructs the view for motorists. Any fence or wall to be constructed within thirty (30) feet of a corner of public or private streets shall be submitted to the Town for review to determine maximum height and placement as a Class IV application.
- (5) No barbed wire or other sharp-pointed metal fence shall be permitted, except as topping for industrial type fencing on nonresidentially zoned property, and no barbed wire or similar fencing material shall be located closer than six (6) feet from the ground.
- (6) No electrically charged fence shall be erected in the Town.



YES	NO	
\boxtimes		Sec. 16-4-60 Lighting.
		(a) Site lighting. Any outdoor lighting used for the illumination of parking areas, off-street loading areas, recreation areas or any other purpose shall be arranged in such a manner as to meet the following standards:(1) Lights shall be shielded so beams or rays of light will not shine
		directly onto surrounding residential properties, and all light fixtures, except for those in the CA zone which match the Town's lighting standards, shall be designed so the light source shall be shielded by the fixture.
		(2) Neither direct nor reflected light from any source may be allowed that may create a traffic hazard to operators of motor vehicles on public streets.
		(3) No colored lights may be used which may be confused or construed as traffic control devices.
		(4) No beacon lighting, blinking, flashing or fluttering lights or other illuminated device such as a changing light intensity, brightness or color may be permitted in any district, except for temporary holiday
		displays. (5) No light source shall exceed twenty (20) feet in height, except where placed on a building to illuminate portions of the building, or within parking lots greater that twenty (20) parking spaces, where the maximum height may not exceed twenty-eight (28) feet.
YES	NO	
\boxtimes		(b) Building lighting. Any lighting used on a building shall conform to the following standards:
		 (1) No light source shall be designed in a manner where it is not shielded in by the light fixture. Recessed lighting is preferred. (2) No building or building element shall be outlined or framed by lights to highlight the building or any portion of the building, such as the use of neon tubing or other similar light fixture on a permanent basis.
		(3) Building elements may be highlighted with decorative lighting sucl as Christmas lights that are intended to be utilized on a temporary basis.
		(4) No light source may be placed higher than the eave line of the building.



YES

NO

PLANNING DEPARTMENT

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		Sec. 16-4-70 Home occupations.
		Home occupations shall be allowed as an accessory use, provided that all of the following conditions are met. An application for a home occupation shall be reviewed as a Level I application:
		(1) Such use shall be conducted entirely within a dwelling and carried on by the inhabitants living there.(2) Such use shall be clearly incidental and secondary to the use of the dwelling for dwelling purposes and shall not change the character
		thereof. (3) The total area used for such purposes shall not exceed forty percent (40%) of the floor area of the user's dwelling unit. (4) There shall be no exterior advertising other than a nameplate placed on the house that does not exceed one and one-half (1.5) square feet in size, and is not lit in any manner.
		(5) There shall be only incidental sale of stocks, supplies or products conducted on the premises.
		(6) There shall be no exterior storage on the premises of materials or equipment used in the home occupation.
		(7) There shall be no offensive noise, vibration, dust, smoke, odors, heat or glare noticeable at or beyond the property line.(8) No traffic shall be generated by such home occupation in greater volume than would normally be expected in a residential neighborhood.
		(9) A home occupation may include, but is not limited to, the following provided that all requirements contained herein are met: art studio, dressmaking or other millinery work, professional office, office for insurance or real estate sales, and teaching.
		(10) Ordinarily a home occupation shall not be interpreted to include the following: clinic, hospital, nursing home, restaurant or retail shop.
N/A		
YES —	NO —	
		Sec. 16-4-80 Nonconforming uses and buildings.
		A nonconforming use may be continued, and a nonconforming building may continue to be occupied, except as otherwise provided for in this Section.
		(1) Change of use. A nonconforming use may be changed to any conforming use or to any use of a more restrictive classification.(2) Abandonment of use. If active and continuous operations are not

carried on in a nonconforming use during a continuous period of one



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- (1) year, the building, other structure or tract of land where such nonconforming uses previously existed shall thereafter be occupied and used only for a conforming use. Intent to resume active operations shall not affect the foregoing.
- (3) Restoration of buildings. A nonconforming building or a building containing a nonconforming use which has been damaged by fire or other causes not under the control of the owner may be restored to its original condition, provided that such work is started within six (6) months of such calamity and completed within one (1) year of the time restoration is commenced.
- (4) Alteration of a nonconforming building or structural changes. A nonconforming building may be structurally altered, repaired or enlarged in any way permitted by these regulations, provided that no alterations, repairs or enlargements shall be made in a nonconforming building which would increase the degree of nonconformity with the location and bulk requirements of this Chapter. Any building or structure containing a nonconforming use or any nonconforming building or portion thereof declared unsafe by the Building Inspector may be strengthened or restored to a safe condition.

YES NO Sec. 16-4-90. - Transfer of density. (b) Development permit required. Any person desiring to transfer density from one (1) lot or parcel of real property within the Town to another such lot or parcel must obtain a permit authorizing and approving such transfer, and any transfer of density except in compliance with the provisions of this Section shall be null and void. N/A YES NO Sec. 16-4-100. - Adult entertainment. Adult entertainment, including massage parlors, may be allowed as a conditional use within the MU zoning district if the Town finds that it meets all the criteria for the granting of a conditional use and it conforms to the following standards:

N/A

N/A



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ARTICLE VI - Off-Street Parking and Loading

YES	NO				
		Sec. 16-6-40 Ge	Sec. 16-6-40 General parking requirements.		
			mber of parking spaces shall be provided for any addition to an existing development or change of		
		Use	Required Spaces		
			Residential		
		Single-family	2 spaces		
		Duplex	2 spaces/unit		
		r	Multi-Family Residential and Hotels		
		Efficiency, studio, 1-bedroom	1.5 spaces/unit		
		2-bedroom or greater	2 spaces/unit		
		Lodging, hotel, motel, bed & breakfast	1 space/bedroom		
			Schools		
		Child care center	1 space/employee + 1 space/10 children		
		Elementary, middle school	2 spaces/classroom		
		High school,	.25 spaces/student capacity + 1 per faculty member		

college



Commercial/Miscellaneous			
Retail sales, commercial, general office, medical office, dental office	1 space/400 gross sq. ft.		
Church	1 space/400 gross sq. ft.		
Auto service establishment	1 space/employee + 1 space/service bay		
Restaurant, sit- down	1 space/120 gross sq. ft.		
Restaurant, drive- in	1 space/100 gross sq. ft.		
Restaurant, outdoor seating	Outdoor seating that does not exceed 20% of the size of the restaurant, based on gross square footage, shall be exempt. Outdoor seating in excess of 20% shall provide parking for those portions of the seating area in excess of 20% at the same rate as the restaurant itself		
Conference Center or Public Meeting Room	1 space/every 250 square feet		
Entertainment			
Auditorium, theater	1 space/4 seats		
Bowling alleys	4 spaces/alley + 1 space/employee		

⁽b) All parking requirements that are not whole numbers shall be rounded upward to the next highest whole number.



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(c) The number of parking spaces required for uses not listed within this Section shall be determined by the Planning and Zoning Commission, after review and recommendation by the Town Manager, based on the impacts anticipated by the proposed use, and shall relate to the anticipated demand created by each proposed use.

YES	NO				
\boxtimes		Sec. 16-6-60	Design standards fo	or off-street parking spa	ces
		and facilities.			
			parking space or facility ollowing design standa	y provided within the Towi ards:	n shall
		(1) Size of parkir	(1) Size of parking stalls/spaces.		
			ng facility containing f g stall sizes shall be:	our (4) or more spaces, th	е
			Length	Width	
		30 to 90			
		degree parking	18 feet	9 feet	
		Parallel parking	25 feet	8 feet	
		Enclosed parking	18 feet	9 feet	
YES	NO				
		other uses where		ding single-family, duplex on tains less than four (4) pa es shall be:	
			Length	Width	



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30 to 90 degree parking	18 feet	9 feet
Parallel parking	25 feet	8 feet
Enclosed parking	18 feet	9 feet

N/A

YES	NO

 \boxtimes

(2) Width of parking aisles. The following minimum aisle widths shall be required for all off-street parking facilities provided within the Town:

Angle of Parking Stalls	Minimum Aisle Width
45 degrees	14 ft. (one-way traffic only)
60 degrees	18 ft. (one-way traffic only)
75 degrees	20 ft. (one-way traffic only)
90 degrees	24 ft. (one- or two-way traffic)

Parking facility entry shown at 17.7'. Applicant will update to show a 24' minimum width by modifying the parking lot striping in this area

YES	NC
	\boxtimes

- (3) Maximum grades.
- a.Single-family and duplex uses. The maximum grade allowed for single-family and duplex uses shall not exceed ten percent (10%), with the exception that the first twenty (20) feet immediately adjacent to any garage shall not exceed eight percent (8%), or twelve percent (12%) if heated.
- b. Summer seasonal parking lots. The maximum grade allowed for parking spaces shall not exceed six and one-half percent (6.5%) in



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any direction. The maximum grade allowed for drive aisles adjacent to parking spaces shall not exceed six and one-half percent (6.5%) in any direction. The maximum grade allowed for access driveways between the public road and the parking spaces shall not exceed ten percent (10%) in any direction.

- c. All other uses. The maximum grade allowed for parking spaces shall not exceed four percent (4%) in any direction. The maximum grade allowed for drive aisles adjacent to parking spaces shall not exceed four percent (4%) in any direction. The maximum grade allowed for access driveways between the public road and the parking spaces shall not exceed ten percent (10%) in any direction.
- d. Access drives crossing sidewalks. When an access drive crosses a public sidewalk or a designated accessible route, the slope of the drive aisle shall not exceed two percent (2%) to maintain the cross-slope of the sidewalk or accessible route. This is typically accomplished by the installation of a concrete curb cut for sidewalks attached to the curb along a roadway.

The maximum grading within the parking lot drive aisle and parking spaces is 8.5% which exceeds the allowable maximum grade of 4%.

YES	NO	
\boxtimes		Sec. 16-6-60 Design standards for off-street parking spaces and facilities.
		(4) Paving. All parking spaces, including driveways, shall be surfaced with asphalt, concrete or equivalent.
YES	NO	
		(5) Lighting. Any lighting proposed for the purpose of providing lighting for a parking facility shall be designed in a manner where the light is directed away from any adjoining properties. In addition, lighting fixtures for parking lots within the Core Area shall be compatible with the light fixtures provided by the Town to light Town parking lots and public ways.
YES	NO	
\boxtimes		(6) Accessibility. All off-street parking spaces and facilities shall have legal, unobstructed access to a public street or alleyway.



YES	NO	
\boxtimes		(7) Backing onto public street. Except for single-family and duplex parking areas, all other parking stalls and spaces shall be so designed, located and served by maneuvering lanes so their use will under no circumstances require a backing movement onto any public street.
		In cases where portions of a Town owned right-of-way are used as primarily public parking, and where the portion of the right-of-way used as primarily public parking also does not have a street name designation, backing into the drive aisle adjacent to the parking spaces shall be permitted.
		In the Core Area Zone District, upon determination by the Town Manager that no other option for accessible parking is available for a particular building, accessible parking spaces for such building may be allowed to back into the right-of-way in order to provide accessible parking for such building.
YES	NO	(8) Landscaping. All off-street parking facilities containing four (4) or more spaces shall be adequately screened from any adjacent residentially zoned parcel or public street by a strip of land at least ter (10) feet in width (fifteen [15] feet if in a front yard) densely landscaped with a combination of trees and shrubs adequate to screen the adjacent property or right-of-way from the parking lot. This landscaping area shall contain a minimum of one (1) tree per ten (10) linear feet, with the trees being a minimum of eight (8) feet in height, and having a mixture of evergreens and deciduous trees at a ratio of 50:50.
YES	NO	 (9) Snow storage. Summer seasonal parking lots are not required to have additional snow storage areas. Unless designed with a snow melt system, all other parking areas shall be provided with snow storage areas adequate to meet the needs of the parking facilities. This shall include the provision of a minimum of snow storage equal to twenty-five percent (25%) of the area to be cleared of snow. Such snow storage areas shall be located in a manner to reasonably facilitate the snow removal process. The



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snow storage areas shall be landscaped in a manner that does not interfere with the snow storage process.

		interiere with the show storage process.
YES	NO	(10) Accessible parking. Parking facilities shall be designed and constructed with accessible parking and accessible access routes in conformance with the federal 2010 ADA Standards for Accessible Design. Parking facilities shall provide the minimum number of required accessible parking spaces per Section 208 of the federal 2010 ADA Standards for Accessible Design. At least one (1) van-accessible parking space is required for every six (6) or fraction of six (6) accessible parking spaces required per this Section. The width of an accessible parking space may be reduced to a minimum of eight (8) feet wide when adjacent to an access aisle that is a minimum of eight (8) feet wide.
		Sec. 16-6-70 Maintenance of off-street parking spaces and facilities.
		It shall be the responsibility of the owner to maintain the off-street parking spaces or facilities in a state of good repair and in an unobstructed condition so as to ensure that all required off-street parking spaces are available for use on a daily basis. Upon an accumulation snow depth of four (4) inches of uncompacted snow, all off-street parking spaces shall be substantially cleared of snow within twenty-four (24) hours. The removed snow shall be stacked in such a way so as not to impair lines of sight or disrupt the proper flow of vehicular or pedestrian traffic. Snow removal is not required in summer seasonal parking lots. Summer seasonal parking lots may be used for snow storage
YES	NO	
\boxtimes		Sec. 16-6-80 Use restrictions for off-street parking facilities.
<u> </u>		The required number of off-street parking spaces shall be maintained

for the parking of operable passenger vehicles of residents, customers, patrons and employees only, and shall not be used as parking for vehicles which are being used as a residence, for storage

of vehicles or materials.



on site.

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Unless otherwise allowed in this Section, required off-street parking spaces shall not be used for the parking or storage of trailers, boats, detached campers, disabled or inoperable vehicles or other objects that will render the parking space unusable according to the intent and purpose of this Article.

Parking spaces located within summer seasonal parking lots may be used for the storage of trailers, boats and snow as approved by the Town Manager.

YES	NO	
		Sec. 16-6-90 Off-street loading spaces.
		Every project used for commercial, retail or industrial purposes with a gross floor area of over twenty thousand (20,000) square feet shall be required to have a minimum of one (1) off-street loading area provided

N/A



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ARTICLE VII - Landscaping and Vegetation

Sec. 16-7-10. - Intent.

This Article is intended to provide for the health, safety and

		welfare of the citizens of the Town by preserving existing vegetation and providing that future development provide landscaping that meets the following objectives and criteria:
YES	NO	(1) All efforts will be made to preserve existing trees.
YES	NO	(2) Proposed landscaping improvements will be of high quality and guaranteed by the developer.
YES	NO	(3) Proposed landscaping improvements will be of such species as necessary to live in the Town's mountain environment.
YES	NO	(4) Landscaping to be installed shall be of a sufficient quantity and size to: Screen all buildings from adjoining properties. Screen parking areas from roads and neighboring properties with dense landscaping. Provide a buffer between commercial properties and the road through substantial landscaping. Such buffers shall allow visibility by the general public, but also provide vegetation that will screen portions of the building and parking area. Provide a landscaped area between residential properties and the street, including trees and other landscape materials. Screen developments on slopes of over fifteen percent (15%). Developers shall be required to place additional trees in sufficient number to screen such properties from major thoroughfares, such as Highway 6 and Chief Colorow Street.



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Sec. 16-7-20. - General landscape requirements.

All yards and parking areas shall be landscaped in accordance with the following requirements:

(1) Provisions for landscaping, screening and maintenance are a continuing obligation of the property owner, and where approved trees, shrubs or other landscaping materials die or are removed, it shall be the responsibility of the applicant to replace them with materials of a comparable nature and size to those originally approved.

YES	NO	
		(2) Site plans indicating landscaping improvements shall be included with the plans submitted to the Planning and Zoning Commission for approval. Issuance of a building permit includes these required improvements which shall be completed or guaranteed prior to issuance of a certificate of occupancy.
YES	NO	
		(3) Existing trees, plant material and special site features shall be preserved within a project site to the fullest extent possible.
N/A		
YES	NO	
		(4) All required yards and the entire open space of all multi-family dwelling sites, exclusive of walks, drives, parking areas and buildings, shall be landscaped and permanently maintained. Landscaping shall primarily consist of ground cover, trees, shrubs and other living plants with sufficient irrigation to properly maintain all vegetation. Decorative design elements such as fountains, pools, benches, sculptures, planters, fences and similar elements may be placed within the area, but shall not be the dominant feature of any yard.
YES	NO	
		Sec. 16-7-30 Specific requirements. (a) All open storage areas shall be screened from public rights-of-way
		(a) All open storage areas shall be screened from public rights-or-way

(a) All open storage areas shall be screened from public rights-of-way or adjacent property by use of landscaping, berms or a combination of landscaping and other structural elements to a height of six (6) feet. Parking or storage uses accessory to a primary single-family use and located on an adjoining lot shall be fully screened with the use of



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decorative fencing that is architecturally compatible to the primary residence (using wood, stone or similar natural materials).

N/A			
	YES	NO	(b) Any site contiguous to or facing any residential zone or residential use shall screen its parking areas, loading docks or similar uses through the use of landscaping elements to a height of four (4) feet.
N/A			
	YES	NO	(c) All surface areas designated on the approved site plan that will not be a hard surface shall be planted with adequate ground cover as approved by the Town and shall be top-dressed with a minimum of two (2) inches of top soil prior to planting. In addition, irrigation systems shall be provided in those instances where required to guarantee the proper growth of the landscaping being provided.
	YES	NO	(d) Not less than seven percent (7%) of the interior of all parking lots and drive-in establishments shall be placed in landscaping.
	YES	NO	(e) Trees shall be provided in the following manner: Street trees shall be provided for all projects where front yards are required, at a rate of one (1) tree for every fifteen (15) linear feet, or fraction thereof, of street frontage, including street side yards. In addition to the street trees required above, trees shall be provided for all projects other than single-family, at a rate of one (1) tree per five (5) parking spaces or fraction thereof. These trees shall be placed within or immediately adjacent to the parking lot. Within all other yards, trees shall be provided in a number adequate to buffer the project from adjacent uses. All required trees shall be a minimum of six (6) feet in height, with the exception that twenty-five percent (25%) of the required trees for any project shall be a minimum of eight (8) feet in height. All required trees shall have a minimum caliper, measured two (2) inches above ground level, of one and one-half (1½) inches. A minimum of thirty percent (30%) of all required trees shall be evergreens, and at least twenty-five percent (25%) of the evergreens shall be a minimum of eight (8) feet in height.



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YES	NO	
		(f) Public rights-of-way adjacent to the site shall also be landscaped if in the opinion of the Commission such landscaping is necessary to complete the project. Specifically, the applicant is responsible for improving the area between the street roadway and the applicant's property line.

N/A



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ARTICLE VIII - Design Guidelines

YES	NO	Sec. 16-8-20 Harmonious development of structures. (a) Building location, configuration, architectural design, materials and colors should be harmonious with the mountain setting and scale of the Town. Structures should not visually dominate the Town unless they are of civic importance and occupy focal sites.
YES	NO	(b) Structures should utilize materials and design elements that relate to the mountain character of the community, and should not utilize a "design theme" that is not characteristic of the community or
		region, such as utilizing adobe or other materials more appropriate for southwestern United States, or Colonial themes or other similar designs.
YES	NO	Sec. 16-8-30 Roofs.
		Roofs should be designed to be harmonious with their surroundings; this would typically include shake roofs or metal roofs with a matte finish. Flat roofs should be discouraged and permitted only in special situations that prohibit the use of pitched roofs. Where flat roofs are used, pitched roof elements should be used to add interest and relate better to the existing community design. Eaves, canopies, overhangs and other building features that provide shelter from the elements in winter and shade in summer are encouraged. Where long roof elements are utilized, they should be broken up through the use of dormers or other features. Roofs should not be designed in a manner that allows snow to shed over entryways or walkways, nor should buildings be designed to allow snow shedding onto parking spaces.
YES	NO	
\boxtimes		Sec. 16-8-40 Building materials.
		Building materials should be predominantly natural, such as wood siding, shingles, native stone and brick. Foundations provided for



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nonresidential buildings and multi-family structures should be faced with native stone or painted, rather than left as an untreated concrete.

YES	NO	
		Sec. 16-8-50 Colors. Natural colors (earth tones) are favored, but gray and white are also acceptable if used in appropriate locations and amounts. Primary colors or other bright colors should be used only as accents, and then sparingly. Use of penetrating stains rather than paint on wood surfaces will be encouraged. Wood should be finished so as to protect it from the elements.
YES	NO	Sec. 16-8-60 Grading. Excessive grading, including cut-and-fill slopes, shall not be permitted on hillsides for building sites, access drives, parking areas or other improvements. Cut-and-fill slopes should be sculptural in form, contoured and planted with natural materials to blend in with the natural, undisturbed terrain.
YES	NO	Sec. 16-8-70 Service areas. Service areas, outdoor storage, garbage cans and trash storage areas shall be screened from adjacent properties, streets and other public areas by fences, planting or other suitable means as approved by the Town.
YES	NO X	Sec. 16-8-80 Retaining walls. Retaining walls should be limited in size. Where retaining walls are necessary, they should be designed in a manner that is compatible with the natural surroundings of the site and/or building design.



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Materials should usually consist of natural rock, boulders, stone, brick or other decorative materials. In addition, retaining walls should not usually exceed eight (8) feet in height, and where greater height is necessary, shall be designed in a manner that steps the retaining walls and provides landscaping on each step.

The proposed retaining wall height of a maximum 14.8 feet exceeds the 8 foot tall maximum allowance and does not provide terracing.

\boxtimes		Sec. 16-8-100 Snow storage.
		Adequate space shall be provided within a development for storage of snow. It is encouraged that a functional snow storage area be provided which is equal to twenty-five percent (25%) of the area to be cleared, including the full dimensions of roadways, walkways and parking areas. Snow storage shall not be allowed on landscaped areas, except where these areas are grass or rock cover. It is encouraged that snow storage areas be located away from public view wherever possible. Snow storage areas shall be required to be shown on site plans, and easements may be required to be dedicated where needed. In some cases, the Town may reduce the required snow storage areas if a snow removal plan is presented which provides a continuous guarantee of removal.
YES	NO	
\boxtimes		Sec. 16-8-110 Revegetation.
		All areas disturbed for any construction activity shall be revegetated, and it shall be the applicant's responsibility to guarantee that all revegetated areas shall continue to grow.

EXHIBIT C

Panera Bread PUD Development Plan
Staff Report

SIGN PLAN CHECKLIST



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ARTICLE XI - Sign Regulations

YES	NO	
\boxtimes		Sec. 16-11-10 Purpose.

Inasmuch as the citizens of the Town have expressed a desire to impose strict control on commercial signage, it is the intent and purpose of this Article to:

- (1) Recognize that commercial signs are a necessary means of useful communication for the convenience of the public.
- (2) Maximize the value of commercial signage as a means of locating and identifying commercial establishments providing goods and services while, at the same time, discouraging the use of commercial signage to sell goods and services.
- (3) Protect, preserve and enhance the unique aesthetic character, beauty and charm of the Town, and thereby encourage the continued development of tourism within the Town.
- (4) Recognize the difference between commercial signs, which propose a commercial transaction, and ideological signs, which do not propose a commercial transaction but, instead, involve only the expression of ideas or beliefs.
- (5) Ensure that commercial signage does not obscure the architectural and natural features of the Town and is of a scale and proportion compatible with the aesthetic character of the Town.
- (6) Protect the public from hazardous conditions that can result from commercial signs which are structurally unsafe, obscure the vision of motorists, create dangers to pedestrian traffic or compete or conflict with necessary traffic signals and warning signs.
- (7) Promote an overall visual effect which has a minimum of clutter.
- (8) Avoid the creation of a "tourist trap" atmosphere which can result when business enterprises compete for attention through the use of excessive commercial advertising signs.
- (9) Eliminate distracting lighting and excessive glare by reasonably limiting the illumination of signs to subdued, adequately shielded or concealed light sources.
- (10) Encourage the construction of commercial signs of natural materials which are aesthetically pleasing and are compatible with the cultural and natural surroundings and with the buildings to which they are affixed.
- (11) Impose reasonable time, place and manner restrictions upon commercial signs while, at the same time, not unnecessarily or impermissibly interfering with the free exercise of rights granted



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under the First Amendment of the United States Constitution and Article II, Section 10 of the Colorado Constitution.

- (12) Assure that signs are promptly removed once the business, service or other activity advertised is no longer provided.
- (13) Prohibit off-premises signs which do not identify a business, service, product or other activity engaged in or provided upon the premises where the sign is located.

Sec. 16-11-20. - Definitions.

See Dillon Municipal code for definitions.

Sec. 16-11-30. - Violations and penalties.

- (a) It is unlawful for any person to erect, construct, enlarge, alter, display, maintain or use a sign within the Town contrary to or in violation of any provision of this Article.
- (b) Every person convicted of a violation of any provision of this Article shall be punished as provided in Section 1-4-20 of this Code.
- (c) In addition to other remedies available to the Town, the Town may commence an action to enjoin the alleged violation of any provision of this Article or to authorize and compel the removal, termination or abatement of such violation.

YES	NO	
	\boxtimes	Division 2 - Sign Permits
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Sec. 16-11-40. - Permit required.

Except as provided in this Division, no person shall erect, construct, enlarge, alter, repair, display, maintain or use a sign, whether temporary or permanent, until a permit for the same has been issued by the Planning and Zoning Commission or Town Manager or Town Manager's designee. Each sign shall require a separate sign permit.

The development is proposing 4 building signs on each elevation of the building with a total of 116.68 square feet. Also proposed is two menu signs at 56.95 square feet total, 1 window sign at 5.80 square feet, and 4 directional signs at 16.59 square feet total. The development also proposes 1 Tenant Sign on Sign 2 of the Ridge at Dillon Business Area Directory sign (located on the proposed lot 9-10R) with a total of 7.40 square feet.



YES	NO	
		Sec. 16-11-50 Exemptions
		Subject to the hereinafter-specified conditions and limitations and provided that the following signs or sign devices are not prohibited by <u>Section 16-11-60</u> below, the following are exempted from the provisions of this Article:

- (1) Official notices. Official government notices and notices posted by federal, state or local government officers or employees in the performance of their official duties; and government signs to control traffic, identify streets, warn of danger or perform other regulatory purposes.
- (2) Flags. The flag, pennant or insignia of any nation, organization of nations, state, province, country, city, religious, civic or fraternal organization or educational institution, or maritime signal flags or pennants; provided, however, that a permit shall be required when such are used in connection with a commercial promotion or as an advertising device; and provided further that all such flags are subject to the following limitations:
 - a. Flags and pennants shall not exceed the proportions which have been established by Presidential declaration, to wit: three (3) feet by five (5) feet when hung from a building or five (5) feet by seven (7) feet when hung from a flagpole.
 - b. Flags shall have a minimum clearance of eight (8) feet when they project over public sidewalks and fifteen (15) feet when projecting over streets or roads.
 - c. A maximum of twenty (20) feet from the top of a flagpole to average grade shall be allowed.
 - d. Flags, pennants and insignia shall be maintained in a clean and undamaged condition at all times.
 - e. The display of national flags, pennants and insignia shall be governed by the standard rules of international protocol.
- (3) Art. Works of art not used in connection with a commercial promotion or as an advertising device.
- (4) Warning signs. Temporary or permanent signs erected by the Town, public utility companies or construction companies to warn of danger or hazardous conditions, including signs indicating the presence of underground cables, gas lines or similar devices.
- (5) Merchandise. Merchandise or models of products or services which are incorporated as an integral part of an indoor window display. Merchandise includes photographic window displays of real estate available for sale, lease or rental from a licensed real estate broker.



- (6) Signs on vehicles. Signs displayed on motor vehicles or trailers which are being operated or stored in the normal course of business, such as signs indicating the name of the owner or business which are located on delivery trucks, trailers and the like; provided, however, that the primary purpose of such vehicles is not for the display of signs; and provided that such vehicles are parked or stored in areas appropriate to their use as vehicles.
- (7) Cornerstones. Cornerstones and the like, when carved into stone, concrete, bronze or other permanent material and made an integral part of a building or structure, when they do not exceed four (4) square feet in size.
- (8) Historic plaques. Historic plaques erected by the Town or historic agencies designating any areas of historical significance.
- (9) For sale/for rent signs. Any temporary sign used for the purposes of giving notice of the sale or rental of real property may be displayed, provided that said sign does not exceed six (6) square feet in area; provided that no more than one (1) such sign may be erected per lot or parcel; and provided that the sign is removed within seven (7) days after the sale or rental of the subject property. Exception: One (1) for sale sign not exceeding sixteen (16) square feet in size may be permitted for any lot or parcel greater in size than two (2) acres located outside of the Town Core Area.
- (10) Change of copy. Changing of the advertising copy on a permanent and permitted sign specifically designed to allow changes of the copy or message thereof.
- (11) Painting or repair of signs. Painting, repairting, repair or cleaning of a sign; provided, however, that this exemption shall not apply if the color scheme or design of an existing sign is altered or if such painting or repainting results in a different business being advertised by the sign.
- (12) Signs authorized by law. Signs required or specifically authorized for a public purpose by any law, statute or ordinance, such as "No Trespassing" signs; provided, however, that no such sign shall be placed in a public right-of-way unless specifically required or authorized by law, statute or ordinance; and, except for warning signs or barricades of a temporary nature, such signs shall be permanently affixed to the ground, a building or other structure. Such signs shall not exceed the minimum number required to accomplish the purpose.
- (13) Information signs. Signs containing no advertising, provided that each sign does not exceed four (4) square feet in area, and limited to a total of eight (8) square feet for any one (1) business. Businesses having more than one (1) public entrance are allowed an additional four (4) square feet of sign area for the display of information signage at the secondary entrance.
- (14) Political signs. Signs, posters and banners indicating support for or opposition to a political candidate or political question. Such signs, posters or banners shall not be erected or placed prior to forty-five



- (45) days before an election and shall be removed within five (5) days following the election. No such signs, posters or banners shall be placed upon or shall extend into any public property or right-ofway.
- (15) Bumper stickers. Bumper stickers or similar expressions of noncommercial speech affixed to motor vehicles.
- (16) Picket signs. Signs used by persons engaged in lawful picketing activities.
- (17) Seasonal decorations. Temporary, noncommercial decorations or displays when such are clearly incidental to, and are customarily or commonly associated with, any national, local or religious celebration; provided, however, that such decorations or displays are maintained in an attractive condition and do not constitute a fire hazard.
- (18) Residential nameplates.
- (19) Ideological signs. Other types of ideological signs not specifically enumerated in this Section.
- (20) Menu display boxes. Display boxes of up to four (4) square feet are allowed for restaurants, bars and lounges for the purpose of displaying menus. A permit shall be obtained for menu display boxes larger than four (4) square feet, and the square footage which exceeds four (4) square feet shall be counted against the total allowable sign area of the business.
- (21) Civic events posters and announcements. Posters, flyers and announcements promoting civic events may be displayed, but shall not contain advertisements for products or services not associated with the civic event. Displays of civic events announcements shall not exceed two (2) posters per business, shall not be placed on the exterior of a building or structure and shall not be placed on Townowned property or rights-of-ways without approval in writing from the Town Manager.
- (22) Scoreboards on athletic fields.
- (23) Gravestones.
- (24) Religious symbols not exceeding sixteen (16) square feet in commercial zones and four (4) square feet in residential zones.
- (25) Commemorative plaques not exceeding four (4) square feet.
- (26) Holiday decorations utilized on a temporary basis.
- (27) Open/closed signs not to exceed three (3) square feet.
- (28) Real estate open house signs, provided that they comply with the regulations set forth in <u>Section 16-11-380</u> of this Article.
- (29) *Donation Program Signage*. Signage associated with a Town managed Donation Program may be displayed in accordance with the parameters of the Donation Program.
- (30) Sponsorship Signage. Signage associated with the sponsorship of a Town sanctioned event may be displayed in accordance with the criteria set forth in the special use permit as approved by the Town Manager in writing.



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	Sec. 16-11-60 Prohibited signs.
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It is unlawful for any person to erect, construct or maintain any of the following types of signs or devices:

- (1) Attention-getting devices.
- (2) Flashing signs.
- (3) Moving signs, including but not limited to boats, motor vehicles, airplanes and helicopters. Vertical illuminated rotating cylindrical signs shall not be considered to be moving signs as prohibited herein, provided that only one (1) such sign is located on a single property.
- (4) Off-premises signs; with the exception of Real Estate Open House Signs, Directory Way-finding Signs as allowed pursuant to <u>Section 16-11-335</u> of this Article, Business Area Directory Signs as allowed pursuant to <u>Section 16-11-230</u> of this Article, and Official Signs as allowed pursuant to <u>Section 16-11-265</u> of this Article.
- (5) Signs with reflective surfaces, except when used for public information signs.
- (6) Roof signs, including mansard roofs, with the exception that signs may be allowed for false storefronts or fascia if the sign does not exceed the roofline over the primary walls of the building.
- (7) Statuary signs.
- (8) Temporary signs, including temporary banners, except as specifically authorized in Division 5 or as exempted pursuant to <u>Section 16-11-50</u> above.
- (9) Walking signs, including costumed characters used for commercial advertising purposes which are visible from any public right-of-way.
- (10) Search lights or beacons shall not be permitted for advertising purposes.
- (11) Parked vehicles, except as provided in Paragraph 16-11-50(6) above, including but not limited to automobiles, trucks, buses, semitrucks (attached or detached), trailers, mobile homes, boats, vans and the like, shall not be used as signs or sign structures.
- (12) Any internally lit sign within the Town Center, whether permanent or temporary in nature.
- (13) Signs constituting a traffic or pedestrian hazard.
- (14) Signs which simulate, imitate or conflict with traffic signals or signs.
- (15) Signs which do not advertise an operative business.
- (16)Pennants and streamers.
- (17)Searchlights.



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- (18) Snipe signs and handbills, including signs fastened to trees, fences, telephone poles, public benches, streetlights or placed on any public property or public right-of-way, excepting those authorized by separate action of the Community Development Department.
- (19) Bus bench or bus shelter signs.
- (20) Signs which contain animated or automatic changeable copy, unless specifically permitted by this Code

N/A

YES	NO	
		Sec. 16-11-70 Class 1 sign permits. (a) Application form. An application for a Class 1 sign permit, including a master sign permit, shall be made in writing on forms furnished by the Town. The application shall contain the following information, and the application and all exhibits shall become the property of the Town:
N/A		
YES	NO	 (1) Master sign plan. a. Two (2) drawings showing the location and allowed sizes of all signs proposed for the project, including the building identification sign, directory sign and individual business signs. b. A plot plan of the site indicating the location of any freestanding sign including business area directory signs. c. An architectural elevation and photo depicting the proposed locations of all signs. d. Any information related to the requirement that all signs within the project are consistent, including allowed sign sizes, colors, letter styles, materials or sign shapes. e. Any other maps, drawings or materials needed to adequately describe the master sign proposal, including the total amount of allowable sign area for the structure and the location, materials and maximum area for each sign that an individual business will be allowed to display.



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		 (2) Individual signs. Two (2) drawings showing details of construction and foundation of the proposed sign if a freestanding sign. A scaled drawing showing the size, shape, design, colors, materials, lighting and letter styles of the proposed sign. A plot plan of the site indicating the sign location of any freestanding sign including business area directory signs. An architectural elevation or a photo depicting the proposed location of the sign on a building for each wall sign e. Any other maps, drawings or materials needed to adequately describe the sign proposal.
N/A		
YES	NO	(b) Preapplication conference. An applicant for a sign permit or master sign plan shall attend a preapplication conference with a member of the Town's staff prior to the actual submission of the application to discuss the proposal and the relevant requirements of this Article.
N/A		
YES	NO	c. Permit fee. At the time of submission of an application for a sign permit or master sign plan, the applicant shall pay a fee in accordance with <u>Chapter 19</u> of this Code. The fee is nonrefundable. Any variance requests must be accompanied by a nonrefundable fee in accordance with <u>Chapter 19</u> .
N/A		
YES	NO	 (d) Sign permit review procedures. Applications for sign permits and master sign plans shall be processed in accordance with the following procedures: (1) Submission requirements. The applicant shall submit the application, all required application materials and the fee at

least fourteen (14) days prior to the Planning and Zoning



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Commission meeting. Within a reasonable period of time after the application has been filed, the Town Manager shall determine whether the application is complete and all required materials have been submitted. If the application is complete, it shall be so noted and scheduled for Planning and Zoning Commission review. If the application is not complete, it shall be so noted, the applicant advised of the deficiencies and the application shall not be scheduled for review until all required materials have been received by the Town.

- (2) Planning and Zoning Commission meetings. Not more than forty-five (45) days from the date a complete application has been filed, the Planning and Zoning Commission shall hold a meeting and review the proposed master sign plan or individual sign application. If time and a quorum warrant, the Commission shall have the right to hold additional meetings (between regularly scheduled Commission meetings) to review individual sign applications.
- (3) Decisions. The Planning and Zoning Commission shall have fourteen (14) days after the conclusion of its review to make a decision, at which time the Commission may:

Approve the application with or without conditions.
Deny the application based on the policies and criteria established within this Article.
Continue or table the application for up to

forty-five (45) days if additional information or

study is necessary to make a decision.

No decision of the Planning and Zoning Commission shall be in conflict with the provisions of this Code unless a variance has been reviewed and approved in accordance with the provisions of this

Article.

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YES	NO	
\boxtimes		Sec. 16-11-80 Class 2 sign permits.
		(a) Application form. An application for a Class 2 sign permit shall be made in writing on forms furnished by the Town. The application shall contain the following information, and the application and all exhibits shall become the property of the Town:
		 A scaled drawing showing the size, shape, design, colors, materials, lighting and letter styles of the proposed sign. A plot plan of the site indicating the sign location of any freestanding sign.



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		 Any other maps, drawings or materials needed to adequately describe the sign proposal.
YES	NO	(b) Preapplication conference. An applicant for a Class 2 sign permit shall attend a preapplication conference with a member of the
		Town's staff prior to the actual submission of the application to discuss the proposal and the relevant requirements of this Article.
YES	NO	(c) Permit fee. At the time of submission of an application for a Class 2 sign permit, the applicant shall pay a fee in accordance with <u>Chapter 19</u> of this Code. The fee is nonrefundable.
YES	NO	 (d) Sign permit review procedures. Applications for Class 2 sign permits shall be processed in accordance with the following procedures. (1) Submission requirements. The applicant shall submit the application, all required application materials and the fee to the Town Manager, who shall determine whether the application is complete and all required materials have been submitted. If the application is complete, it shall be so noted and scheduled for review within ten (10) days. If the application is not complete, it shall be so noted, the applicant advised of the deficiencies and it shall not be scheduled for review until all required materials have been received by the Town. (2) Town review process. If the application is complete, the Town Manager shall review the application and determine whether it meets the standards and criteria of this Article. In making his or her determination, the Town Manager may require an onsite visit with the applicant to discuss the
		request in greater detail. (3) Decisions. The Town Manager shall have ten (10) days after submittal of the complete application to make a decision, at which time he or she may: a. Approve the application with or without conditions.

criteria established within this Article.

necessary to make a decision.

with the provisions of this Article.

c. Continue or table the application for up to ten (10) additional days if additional information or study is

No decision of the Town Manager shall be in conflict



YES

NO

PLANNING DEPARTMENT

NO	
	Sec. 16-11-90 Permit duration; individual signs.
	Signs for which approval has been granted by the Planning and Zoning Commission shall be erected within ninety (90) days of the approval, with the exception that freestanding signs shall be erected within one hundred eighty (180) days of the approval of the sign. Failure to complete placement of a sign within such period shall cause the approval to expire and require the sign owner to obtain Commission approval before such sign can be erected.
NO	
	Sec. 16-11-100 Variances.
	Variances from the literal application of the provisions of this Article may be granted in accordance with the provisions of Article X of this Chapter, and shall be processed in accordance with the development review procedures for Class II development projects contained in Article II, Division 3 of this Chapter.
	Division 3 - General Sign Criteria
	Sec. 16-11-110 General limitations on signs.
	All signs, whether a permit is required or not, shall be subject to the general limitations contained in this Division.
NO	
	Sec. 16-11-120 Architectural compatibility.
	A sign, including its supporting structure and components, if any, shall be architecturally compatible with any building to which the sign is to be attached and with the surrounding structures. Architectural compatibility includes features such as sign location, materials, letter style, colors or size.
	NO



\boxtimes		Sec. 16-11-130 Component painting.
		All light fixtures, conduit and shielding shall be painted a flat, dark color or shall be painted to match either the building or the supporting structure that serves as the background of the sign.
YES	NO	
\boxtimes		Sec. 16-11-140 Maintenance.
		All signs shall be structurally sound, shall be maintained in good repair and shall not constitute a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation or electrical shock. The display surfaces of all signs shall be kept neatly painted and maintained at all times. In addition to other remedies provided for in this Article, the Planning and Zoning Commission shall have the authority to order the painting, repainting, repair, maintenance or removal of any sign which has become dilapidated or in disrepair. If such a condition is determined by the Town Manager to exist, the Town Manager shall give notice thereof by certified mail, return receipt requested, to the owner of the sign at the address shown on the sign permit. If, within fifteen (15) days from service of the notice, the Town Manager's order is not complied with, the Town Manager may remove the sign or cause it to be removed and the cost of removal shall be charged against the sign owner and the sign owner's property as provided in Division 9 of this Article. If removed by the Town, the sign shall be returned to the owner within seventy-two (72) hours and it may not be erected until brought into compliance with this Article.
YES	NO	
\boxtimes		Sec. 16-11-150 Building and electrical permits.
		 All signs for which a sign permit is required shall be subject to the provisions of the most currently adopted version of the building, electrical and mechanical codes. Building permits will be required for all freestanding signs that exceed six (6) feet in height. All signs containing electrical wiring shall be subject to the provisions of the Town's electrical code, and an electrical permit shall be required.
YES	NO	
\boxtimes		Sec. 16-11-160 Confusing or dangerous signs.
<u>ı- V</u>		No sign shall:



		 In any way obstruct the view of, or be prone to confusion with, an official traffic sign, signal or device or any other official sign. Obstruct the view of motor vehicle operators entering a public roadway from any parking area, service drive, private driveway, alley or other thoroughfare. Obstruct free ingress to or egress from required doors, windows, fire escapes or other required exits. Be attached to utility poles or to trees.
YES	NO	
		Sec. 16-11-170 Abandoned signs.
		A sign shall be removed within fourteen (14) days after the activity, product, business, service or other use which is being advertised has ceased or vacated the premises. This provision shall not apply to signs officially designated as landmarks, or to permanent signs accessory to businesses which are open only on a seasonal basis, provided that there is clear intent to continue operation of the business. After fourteen (14) days and notice to the permit holder, a sign may be removed by the Town Manager and the costs of such action may be collected as provided in Division 9 of this Article.
N/A		
YES	NO	
		Sec. 16-11-180 No signs on public property; exceptions.
	_	No signs shall be placed on or within any public right-of-way or public place without the approval of the Town Manager. Directory way-finding signs as allowed pursuant to Section 16-11-335 of this Article shall be allowed on public rights-of-way, streets and public property.
N/A		
VEC	NO	
YES	NO	See 16 11 100 Adjustments to allowed sign area
		Sec. 16-11-190 Adjustments to allowed sign area. (a) Double-faced signs. Only fifty percent (50%) of the surface area per sign face shall be counted against allowed sign area. The two (2)



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sides of a double-faced sign must be parallel back to back and no thicker than twelve (12) inches. YES NO (b) Wood with relief signs. Only eighty-five percent (85%) of the surface area of a wood relief sign within the Town Center shall be counted against the allowable sign area. N/A YES NO Sec. 16-11-200. - Sign length. No sign shall exceed twenty (20) feet in length. **Division 4 - Permanent Signs** Sec. 16-11-210. - Regulations. The following regulations shall apply to the specific permanent signs as indicated. The total area of these signs shall be counted against the total allowable sign area provided in Division 6 of this Article. YES NO Sec. 16-11-220. - Awnings. Any portion of an awning containing the name of the business or other sign shall be counted as a sign. In addition, the following regulations shall apply to awnings: No awning shall block the view of other signs or extend over the public right-of-way or public place without Town approval. There shall be a minimum clearance of at least eight (8) feet between the bottom of the awning and the ground at grade. All awning supports must be set back a minimum of one (1) foot from any Town right-of-way or public property unless specifically allowed by the Town Council. No awning shall be placed in any manner where it would allow snow to shed onto any public walkway YES NO Sec. 16-11-230. - Business area directory signs. Business area directory signs may be allowed by the Planning and Zoning Commission when they meet the following standards and

criteria:



They must provide direction to a separate and distinct business area of the community which is composed of a nonresidential subdivision or planned unit development. The business area must have at least two (2) businesses and a minimum of two (2) platted lots.
They must be designed as a monument sign.
They must meet the height limitations set forth in Subsection 16-11-260(c) of this Article.
No individual business sign on the business area directory sign may exceed fifty (50) square feet, and the total size of the directory sign may not exceed one hundred (100) square feet. The signage allowed on a business area directory sign is considered additional signage and does not count against the allowable sign area established by this Article for each business.
The monument shall be a combination of materials, including stone or brick at the base and heavy timbers as the standards, or alternative materials as may be approved by the Planning and Zoning Commission.
Unless otherwise authorized as part of an approved planned unit development, there may only be one (1) business area directory sign per nonresidential subdivision or planned unit development, and no individual business may have more than one (1) sign.
The area around the monument sign shall be landscaped in a manner that provides twice the landscaped area and landscaped materials as required for monument signs placed on site.
No two (2) business area directory signs may be within three hundred (300) feet of each other.
All businesses placed on the business area directory sign must be in compliance with all Town regulations concerning zoning and signage.
The sign shall be designed in a manner where signs may be replaced when businesses change within the area.
All individual signs, with the exception of the text on the sign, shall be of the same materials, colors, letter sizes, sign sizes, etc. Each individual insert or sign must be similar to all other individual signs on the business area directory sign.
The business area directory sign must be placed on one (1) of the lots contained within the nonresidential subdivision or planned unit development and shall count as the freestanding sign allowed for that lot.
The sign and landscaping must be maintained by the businesses which erect it.



		(14) The sign may not be placed on any public rights-of-way, nor may it be placed in a manner where it blocks proper sight line at intersections.
YES	NO	
\boxtimes		Sec. 16-11-240 Cut-out or painted letters.
_		Cut-out letters mounted on a building surface and letters painted on a building constitute wall signs, and the aggregate area of such signs shall be counted against the allowable sign area established by this Article.
YES	NO	
		Sec. 16-11-250 Directory signs.
		Directory signs may be wall-mounted or freestanding, and the aggregate area of such sign shall be counted against the allowable sign area established by this Article. The individual signs of a directory sign shall be of a coordinated design, with each of the individual signs sharing at least two (2) of the following as design elements in common: size, shape, materials, letter style or color.
N/A		
YES	NO	
	\boxtimes	Sec. 16-11-260 Freestanding signs.
Ш		(a) There shall be no more than one (1) freestanding sign for each lot.
4 Directional S	Signs and 2	Menu Signs proposed on the lot.
YES	NO	
\square		(b) A landscaped area planted with a mixture of vegetation equal to
ĽΝ		two (2) square feet for each one (1) square foot of each side of a freestanding sign shall be maintained by the permit holder. Such area shall be kept in a neat and clean condition, free of trash, weeds and rubbish.
YES	NO	
		(c) Permitted freestanding sign heights:(1) Sign Zone A freestanding signs shall have a maximum
		height of six (6) feet, except as follows:



		Dinon, Colorado 60213
		 Directory way-finding signs as allowed pursuant to <u>Section 16-11-335</u> of this Article may exceed six (6) feet in height with a maximum height of eighteen (18) feet.
		 Freestanding signs located within twenty (20) feet of the Lake Dillon Drive right-of-way may exceed six (6) feet in height with a maximum permitted height of fifteen (15) feet.
		 Official Signs as allowed pursuant to <u>Section</u> 16-11-265 of this Article may be eighteen (18) feet tall.
		(2) Sign Zone B freestanding signs shall have a maximum height of eighteen (18) feet.
N/A		
YES	NO	(d) No freestanding sign shall extend over or into a public right-of-way or public property, and all freestanding signs shall be placed at least five (5) feet to the interior of any property lines, except that directory way-finding signs as allowed pursuant to Section 16-11-335 of this Article may extend over or into a public right-of-way or public property and may be within five (5) feet of the property line.
YES	NO	
		(e) The allowed square footage of a freestanding sign may be increased by up to ten percent (10%) by the Planning and Zoning Commission in those instances where the freestanding sign, including all structural elements, is twelve (12) feet in height or less, and fifteen percent (15%) when the sign is designed as a Monument Sign or an Official Monument Sign.
N/A		
YES	NO	(f) The square footage of the architectural elements of a monument sign shall not be counted against the allowed sign area in those instances where the architectural elements do not exceed the allowed square footage of the sign itself.
YES	NO	0 40 44 005 000 1 1
		Sec. 16-11-265 Official sign. (a) Official Signs shall be so designated by a Resolution of the Town Council of the Town of Dillon.



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N/A			
	YES	NO	(b) Only signs owned and maintained by the Town of Dillon may be designated as Official Signs.
N/A			
	YES	NO	(c) Official Signs may have two (2) faces as part of one (1) sign, and sign faces may be at angles with each other so long as a portion of the sign structure is common to both sign faces. In the case of signs with two (2) faces, the sign area shall be considered as one (1) of the faces.
N/A			
	YES	NO	(d) Maximum Sign Area: One hundred (100) square feet.
N/A			
	YES	NO	(e) Maximum Sign Height: Eighteen (18) feet whether an Official Monument Sign or an Official Freestanding Sign.
N/A			
	YES	NO	(f) Official Signs may have manual or automatic changeable copy. Automatic copy changes may be on Digital Displays or electronic message centers.

N/A

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YES

NO

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YES	NO	
		(g) Official Signs may be used by the Town for the purposes of announcing events and activities in the Town, to provide public service information and emergency communications, and may be used by the Town to advertise goods and services provided to the general public by businesses operating within the limits of the Town of Dillon. Off premises displays of goods and services are permitted for Official Signs.
N/A		
YES	NO	(h) All images and information presented on the Official Signs shall be reviewed and approved by the Town Manager of the Town of Dillon, with the exception that emergency communications and public service information displays may be posted without said review and approval in the interest of rapid dissemination of pertinent information to the public.
N/A		
YES	NO	 (i) Criteria for Digital Displays: (1) Content may change from Still Digital Image to Still Digital Image, but shall not be animated, have moving images, shall not scroll across the display, shall not have fluctuations in light intensity or color within a Still Digital Image Display Period, shall not fade, and shall not flash or strobe.
N/A		
YES	NO	(2) Message Transition: There shall be no transition animation permitted from Still Digital Image to Still Digital Image. Display shall transition from one (1) image to the next with instantaneous pixilation. A blank display between images is permitted.
N/A		



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		(3) Message Duration: Still Digital Image displays shall remain static for a time period not less than five (5) seconds.
N/A		
YES	NO	 (4) Brightness of Digital Displays: □ Digital Displays shall employ an automatic light monitor that measures the ambient light, and shall automatically dim the display in response to lower ambient light conditions. □ Digital Displays shall dim to not less than fifty percent (50%) of the maximum permitted daytime brightness level at night. □ The maximum brightness levels for digital displays, luminance, shall not exceed twotenths (0.2) foot-candles over ambient light levels measured within one hundred fifty (150) feet of the source as determined by the criteria established in this Article.
N/A		
YES	NO	 d. Brightness of Digital Displays shall be measured as follows: At least thirty (30) minutes following sunset, a foot candle meter shall be used to obtain an ambient light reading for the location. This is done while the sign is off or displaying black copy. The reading shall be made with the meter aimed directly at the sign area, at a distance of one hundred fifty (150) feet at a height of five (5) feet above the ground. The sign shall then be turned on to full white copy to take another reading with the meter at the same location. If the difference between the readings is two-tenths (0.2) foot candles or less, the brightness is properly adjusted.

N/A



		(5) No display shall emit a sound as part of the display.
N/A		
YES	NO	 (6) The following types of copy shall be prohibited from appearing on Official Signs: Advertising for Adult Entertainment, Adult Oriented Businesses, or Adult Entertainment Oriented Products, Advertising of Marijuana, Retail Marijuana Stores, Marijuana Infused Products, or Marijuana Accessories, Advertising for Tobacco, Tobacco Stores, or Tobacco Related Products or Accessories, Any copy that the Town Manager of the Town of Dillon deems inappropriate or not acceptable for display
N/A		
YES	NO	Sec. 16-11-270 Projecting or hanging signs. (a) Projecting or hanging signs may not extend above the second floor of any building.
YES	NO	(b) Projecting signs shall not be located above the eave line or parapet wall of any building and shall be a minimum of eight (8) feet above grade when projecting over a public right-of-way.
N/A		
YES	NO	(c) No projecting sign shall extend more than four (4) feet from a building wall.
N/A		
YES	NO	



YES

NO

PLANNING DEPARTMENT

	\boxtimes		(d) The two (2) sides of a projecting or hanging sign must be parallel back to back and shall not exceed twelve (12) inches in thickness.
	YES	NO	(e) The allowable size of any projecting or hanging sign shall not include the sign structure, but in no instance shall the sign structure exceed one-half (½) the square footage of the sign itself.
	YES	NO	Sec. 16-11-280 Subdivision entrance signs. (a) Subdivision entrance signs shall not be greater than twenty (20) square feet in size, and there shall be no more than one (1) per subdivision entry.
N/A			
	YES	NO	(b) One (1) subdivision entrance sign not exceeding twenty (20) square feet in size shall be permitted for each primary entrance to a subdivision containing ten (10) or more lots.
N/A			
	YES	NO	(c) No portion of a subdivision entrance sign shall extend more than twelve (12) feet above grade.
N/A			
	YES	NO	(d) For each subdivision entrance sign, there shall be a landscaped and maintained area at the base of each sign at least two (2) square feet in area for each square foot of each side of the sign and supporting structure, with a minimum landscaped area of twenty-four (24) feet. Such area shall be kept in a neat and clean condition and shall be kept free of rubbish, weeds and trash.
N/A			



\boxtimes		Sec. 16-11-290 Wall signs.
		(a) Wall signs shall not be mounted higher than the eave line or parapet wall of the principal building, and no portions of such wall signs, including cut-out letters, shall project more than six (6) inches from the building.
YES	NO	(b) Wall signs above second floor: twelve (12) square feet.
YES	NO	Sec. 16-11-300 Kiosks. Kiosks may be placed at public facilities or within the right-of-way to provide information of facility events, rules or public announcements. A kiosk shall not exceed twenty (20) square feet in area or six (6) fee in height. Kiosk design shall be reviewed and approved individually through the Class 1 application process to ensure consistency with the character of the area.
N/A		
YES	NO	Sec. 16-11-310 Window signs. (a) Each window located on the first two (2) stories of a building may contain no more than one (1) window sign. Window signs are not permitted above the second story of a structure.
YES	NO	(b) A window sign shall not cover more than fifty percent (50%) of the area of each window, except that a window sign which is a neon sign or a nonflashing illuminated sign may cover the entire window or have a maximum size of six (6) square feet, whichever is less.
YES	NO	(c) The quantities, size, content and placement of window signs shall not be regulated by a master sign plan.
YES	NO	(d) Window signs advertising a business, products or brands that are not sold on the premises are not allowed. In a multi-tenant building, businesses may not use their unit's windows to advertise or promote another business within the same building.



×ES		(e) Window signs are not allowed in residential unit windows.
YES	NO	(f)Changeable copy signs, whether electronic or manual, are not allowed as window signs.
YES	NO	Sec. 16-11-320 Residential complex signs. Up to two (2) building or project identification signs shall be permitted for each hotel, condominium or multi-family project. Such signs shall not exceed seventy-five (75) square feet in total.
N/A		
YES	NO	 Sec. 16-11-330 Property management signs. Each property management company holding a current business license with the Town may receive a permit for property management signs within a multi-family complex, provided that the signs meet the general requirements of the sign code and the following criteria: Sign design and materials shall comply with the property's designated sign zone. Property management signs shall not exceed two (2) square feet and shall be limited to not more than one (1) sign per building. Signs shall be wall-mounted only; no freestanding signs. Signs shall not be directed toward any public right-of-way, but rather toward the interior of the complex. Signs shall not face public streets.
N/A		
YES	NO	Sec. 16-11-335 Directory way-finding signs.



N/A

YES

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Directory way-finding signs shall be allowed in all sign zones. The directory way-finding signs shall meet the following standards and criteria:

□ Directory way-finding signs shall be provided, owned and

	controlled by the Town.
	 Directory way-finding signs shall be no greater in height than eighteen (18) feet from existing or finished grade, whichever is greater.
	is greater. Individual business signs displayed on the directory way- finding sign shall be selected by the Town and the size of the signs determined by the Town. Individual business signs displayed on the directory way-finding sign shall not require a separate permit, but shall be allowed as a part of the directory way-finding sign pursuant to the directory way- finding sign permit.
	 All directory way-finding signs shall be located in Town rights-of-way, streets or public property. All businesses displaying individual business signs on the
	directory way-finding sign shall be in compliance with all Town regulations, including but not limited to zoning, signage and business licensing.
	Division 5 - Temporary Signs
	. , ,
	Sec. 16-11-340 Temporary signs and permitting requirements.
	(a) Except as specifically authorized in this Division and Section 16- 11-50 of this Article, temporary signs are prohibited within the Town. Permitted temporary signs are not charged against the maximum allowable sign area as described in Division 6 of this Article.
NO	
	(b) Temporary signs requiring a permit. The following types of temporary signs shall be allowed only upon issuance of a Class 2 sign permit in accordance with Sections 16-11-80 through 16-11-90 of this Article.
	☐ Civic event banners.
	□ Directional signs.
	□ Real estate development signs.
	☐ Grand opening signs.
	 Sandwich board signs.



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			 Temporary signs and temporary banners. Temporary banners on temporary structures. Temporary sign in lieu of a permanent sign. Temporary sign in lieu of a monument sign panel. New business signs. Temporary feather banners.
N/A			 (c) Temporary signs which do not require a permit. The following types of temporary signs shall be allowed without a sign permit. Real estate open house signs. Real estate for sale and for rent signs. Garage sale signs. Window signs
N/A			
	YES	NO	Sec. 16-11-350 Civic event banners (permit required). (a) Civic event banners shall not be greater than four (4) feet by forty (40) feet in size.
N/A			
	YES	NO	(b)Civic event banners shall have a minimum clearance of eight (8) feet over pedestrian ways and eighteen (18) feet over streets. Civic event banners installed within Town rights-of-way must be approved in writing by the Town Manager.
N/A			
	YES	NO	(c) Civic event banners announcing events held on a weekly basis shall be allowed under this provision, may be hung twenty-four (24) hours prior to the event, shall be removed within two (2) hours following the conclusion of such activity and shall be placed on the property where the event is being held. A permit for civic event banners announcing events held on a weekly basis shall be valid for

each calendar year in which the permit is issued.



N/A		
YES	NO	(d) Civic event banners announcing events held other than on a weekly basis may be hung two (2) weeks prior to the opening of the event or activity being promoted. These banners shall be removed within twenty-four (24) hours after the conclusion of the event.
N/A		
YES	NO	Sec. 16-11-360 Directional signs (permit required). (a) Directional signs shall not be greater than six (6) square feet in size.
N/A		
YES	NO	(b) Nonilluminated directional signs shall be permitted for civic events.
N/A		
YES	NO	(c) Such signs shall not be displayed for longer than four (4) consecutive days and shall be placed so as not to create a hazard for pedestrian or vehicular traffic.
N/A		
YES	NO	(d) Directional signs may be placed off-site and within public rights-of-way if the Town Manager determines that their placement off-site and/or within public rights-of-way is necessary to direct participants to the proposed civic event and if their placement does not create a traffic or safety hazard and is not detrimental to the health, safety and welfare of the community.



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N/A

YES	NO	Sec. 16-11-370 Real estate development signs (permit required). (a) Real estate development signs shall not be greater than thirty-two (32) square feet in size, one (1) per development.
N/A		
YES	NO	(b) A real estate development sign may be displayed commencing with the issuance of approval of the project by the Town and shall be removed at or before the time of the issuance of a certificate of occupancy; provided, however, that, if a building permit for the project identified by the sign is not issued within one (1) year after the approval of the project by the Town, the sign must be removed.
N/A		
YES	NO	Sec. 16-11-380 Real estate open house signs. Three (3) real estate open house signs may be allowed off-premises for each property for sale if the proposed signs meet the following criteria:
		 (1) The off-premises real estate open house signs shall not be greater than four (4) square feet in size. (2) The off-premises real estate open house signs shall not be placed on any sidewalk, bikeway, travel lane or highway median, nor in any manner where, in the opinion of the Town, the sign would constitute a safety hazard. (3) The off-premises real estate open house signs shall be located no closer than three (3) feet to any travel way and shall not block or obstruct the ability of pedestrians and vehicle drivers to view oncoming traffic at street intersections and where driveways intersect streets. (4) The off-premises real estate open house signs may not exceed three (3) feet in height from ground level and shall not be placed on any tree, fence, public signs or signposts.



				(5) The off-premises real estate open house signs may only be displayed between the hours of 7:00 a.m. and 9:00 p.m. (6) The off-premises real estate open house signs shall only be displayed when a real estate agent is available on the premises for sale. (7) Only one (1) off-premises real estate open house sign per business, or per owner when the property is being sold without the aid of an agent, may be located at the same street intersection, and no two (2) signs from the same business shall be located closer than three hundred (300) feet from each other. (8) No off-premises real estate open house signs shall be used to direct citizens to a place of business nor shall they be utilized for any property not for sale. (9) No real estate open house sign may be located further than one-half (½) mile from the property offered for sale. (10) Real estate open house signs do not require a permit, but must comply with all of the requirements of this Section.
N/A				
	YES	NO	(a) Real es feet in size outside of	1-385 Real estate for sale and for rent signs. State for sale signs shall not be greater than six (6) square e, except that parcels greater than two (2) acres in size the Town Center shall be allowed a for sale sign of up to (5) square feet, one (1) such sign per property.
N/A				
N/A	YES	NO	feet in size	state for rent signs shall not be greater than six (6) square and shall be limited to one (1) sign per property or unit ulti-tenant building.
	YES	NO		

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		(c) Real estate for sale signs and real estate for rent signs do not require a permit, but must comply with all of the requirements of this Division and this Section.
N/A		
YES	NO	Sec. 16-11-390 Grand opening signs (permit required). A grand opening sign advertising the opening of a business or combination of businesses may be erected upon issuance of a Class 2 sign permit when the signs meet the following standards and limitations: (1) The grand opening sign may be displayed on site for the duration of the permit not to exceed sixty (60) consecutive days. (2) Businesses are granted one (1) grand opening sign permit in any location. When the ownership of a business changes, a new grand opening sign may be permitted for an additional thirty (30) consecutive days. Proof of business ownership change is required to be submitted prior to issuance of a permit. (3) A new business within an existing building may be permitted a grand opening sign similar to a new business within a new building. (4) Grand opening signs are prohibited on any sidewalk, bikeway or travel lane and may not be placed in any manner where, in the opinion of the Town Manager or Acting Town Manager, the sign would create a safety hazard. No grand opening sign may be freestanding. (5) Grand opening signs must be placed on site, either within a window or on the exterior of the building. No signs may be located above the second floor unless placed on the interior side of a window. (6) Only one (1) temporary sign advertising a grand opening may be displayed per business. (7) No grand opening sign may exceed forty (40) square feet in size.
YES	NO	Sec. 16-11-400 Garage sale signs.



		Garage sale signs which announce the sale of used items from a residence must meet the following standards:
		 (1) A maximum of two (2) signs may be placed on the right-of-way for any garage/yard sale. (2) A maximum of four (4) square feet per sign is allowed. (3) Such signs shall only be displayed between the hours of dawn and dusk on the days of the sale. (4) Signs shall be removed on the last day of the sale and shall not create a nuisance as defined in Chapter 7 of this Code. (5) Garage/yard sale signs are not allowed to be attached onto utility poles or light poles. (6) Garage/yard sale signs do not require a permit but must comply with all of the requirements of this Section.
N/A		
YES	NO	 Sec. 16-11-410 Sandwich board signs (permit required). Only one (1) sandwich board sign is permitted per business. It must be located directly in front of the premises being advertised and must not interfere with movement of pedestrians. Sandwich board signs shall not exceed thirty (30) inches in width and thirty (36) inches in height. Such signs may be displayed during permitted store hours and when the store is open for business. Such signs shall not be electrical in any form and shall not display lights or contain moving parts. Such signs shall not be permitted on Town-owned property, public sidewalks and streets. Such signs may be displayed through December 31 of the permit calendar year. A new permit is required to display the sandwich board sign in the following calendar year
N/A		
YES	NO	Sec. 16-11-420 Temporary signs and temporary banners (permit required).



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Temporary signs and temporary banners may be installed upon issuance of a Class 2 sign permit when the signs meet the following standards and limitations:

(1)Temporary banners shall not be of a flag or temporary feather banner type.

N/A

YES	NO	
		(2) Classi
	Ш	a.

- (2) Classifications of temporary banners and temporary signs:
 - a. Temporary banners and temporary signs advertising for a sale or event or any other use not specifically described within this Section. Only one (1) temporary sign or temporary banner may be displayed per business.
 - b. Temporary banners on temporary structures.
 - 1. In conjunction with an approved development permit for a temporary structure, a Class 2 sign permit may be issued to allow up to two (2) additional temporary banners or temporary signs.
 - 2. Such temporary banners and temporary signs shall be mounted on the exterior of the temporary structure. Mounting signs to pallets of materials, sales items or vehicles is not permitted.
 - c. Temporary sign in lieu of a permanent sign.
 - 1. One (1) temporary sign or banner may be erected for a maximum of thirty (30) days in the location of a permanent building sign upon issuance of a Class 1 or Class 2 sign permit for the permanent building sign.
 - 2. The temporary banner shall be mounted in the same location of the permanent sign.
 - d. Temporary sign in lieu of a monument sign panel.
 - 1. A temporary sign or banner may be erected for a maximum of thirty (30) days in the location of an individual sign panel on a monument sign upon issuance of a Class 2 sign permit for the individual sign panel.
 - 2. The temporary banner shall be mounted in the sign panel location within the existing freestanding monument sign and shall not exceed the size of the sign panel.
 - e. New business signs.
 - 1. In conjunction with an approved development application for a new building, remodel or tenant



YES

NO

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finish, additional Class 2 sign permits may be issued for each of the following banner types:

- a) One (1) "Opening Soon" or "Coming Soon" type banner.
- b) One (1) "Now Open" type banner.
- c) One (1) "Now Hiring" type banner.
- d) One (1) "Under New Management" type banner.
- 2. Such temporary banners and temporary signs may be mounted to the exterior of the building under construction, on the construction office trailer or on the perimeter construction fence. Mounting signs to construction equipment, trailers, shipping containers and vehicles is not permitted.

N/A YES NO (3) No temporary sign or temporary banner may exceed twenty-four (24) square feet in size. N/A YES NO (4) No temporary sign or temporary banner may be freestanding. N/A YES NO (5) Except as otherwise indicated in this Division, temporary banners or temporary signs must be placed on site, either within a window or on the exterior of the main building. No signs may be located above the second floor. No signs may be attached to storage sheds or auxiliary structures. Attaching the signs to deck and stair railings which are connected to the buildings are allowed, as long as they don't interfere with the use of the handrail. N/A



	(6) Temporary signs and temporary banners must be professionally printed on a durable waterproof material and provided with grommets for connection to the building. Hand-drawn banners on bed sheets, fabric, canvas or poster board are not permitted.
NO	 (7) Temporary banners and temporary signs display periods: Temporary banners and temporary signs advertising for a sale or event, or any other use not specifically described within this Section, are limited to four (4) permits, once each quarter, per calendar year, and are allowed for a period of no more than twenty-one (21) consecutive days. There shall be a minimum of a seven-consecutive-day break between permit periods. b. Temporary banners on temporary structures may be displayed on the temporary structure for the duration of the temporary structure permit. They shall be removed when the temporary structure is removed. c. Temporary signs or temporary banners issued as new business signs may be displayed for the duration of the construction or renovation period and shall be removed within thirty (30) days of receipt of the certificate of occupancy or temporary certificate of occupancy. d. Temporary signs in lieu of permanent signs or monument sign panels shall be limited to a thirty-day display period.
NO	 Sec. 16-11-422 Temporary feather banners (permit required). Temporary feather banners may be erected upon issuance of a Class 2 sign permit when the signs meet the following standards and limitations: A maximum of two (2) feather banners are allowed per lot for a single tenant building. For multi-tenant buildings, only one (1) feather banner is allowed for each tenant. In order to maintain intersection sight distances, feather banners shall not be installed within thirty (30) feet of a public



N/A

YES

NO

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	road intersection or the driveway accessing the property. The Town Manager may increase this distance as required to
	ensure public safety. Feather banners shall not exceed thirty-six (36) square feet in size. The feather banner shall not exceed eighteen (18)
	feet in height, as measured from ground level. Feather banners shall be mounted at ground level and shall be installed utilizing a compatible weighted base component or shall be embedded in the ground to a sufficient depth in order to prevent the banner from blowing over. Tripod-type stand bases are not allowed unless they are integrated into a weighted base design. Utilizing sand bags, concrete blocks, big rocks and guy wires for weighting down the bases of these banners shall not be permitted, unless allowed in writing by the Town Manager.
	Feather banners are prohibited on any sidewalk, bikeway or travel lane and may not be placed in any manner where, in the opinion of the Town Manager, the sign would create a safety hazard.
	Private property owners shall not install private feather
	banners on Town-owned property or street rights-of-way. Except as allowed herein, feather banners are limited to four (4) permits, once each quarter, per calendar year and are allowed for a period of no more than twenty-one (21) consecutive days. There shall be a minimum of a seven-consecutive-day break between permit periods, except as otherwise stated in this Section. Up to three (3) additional permits may be issued for a temporary feather banner holiday which allows feather banners to be erected from the Friday before a temporary feather banner holiday through the Monday after a temporary feather banner holiday. This temporary feather banner holiday time period may be combined with a quarterly temporary feather banner period allowing a maximum of twenty-eight (28) days of display time. After the permitted display period, there shall be a minimum of a seven-consecutive-day break between permit periods.
Divisio	on 6 - Design Standards and Maximum Sign Areas
Sec. 1	6-11-450 Sign Zone A.
(a) Sign	n design and materials.

(1) It is encouraged that permanent signs, with the exception of window signs, be constructed predominantly of natural



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materials, including rough cedar, redwood, pine, stone, brass or other types of natural materials. Internally lit signs are prohibited within this sign district.

- (2) List of acceptable materials:
 - a. Rough cedar.
 - b. Redwood.
 - c. Pine.
 - d. Stone.
 - e. Brass.
 - f. Materials that simulate natural materials and create a 3-D effect, as approved by the Planning and Zoning Commission.

N/A

YES	NO	(b) Lighting requirements.
		 (1) Within the Sign Zone A area, no permanent building identification sign or business sign may be internally illuminated.
		(2) Shielded lighting. Light bulbs or lighting tubes used for illuminating a sign shall not be visible from the vehicular travel lanes of adjacent public rights-of-way. The use of adequate shielding, designed so that light from sign-illuminating devices does not shine directly into the eyes of passing motorists without first being reflected off the sign or its background, is required whenever exterior sign lighting is used.
		(3) Subdued lighting. The intensity of sign lighting shall not exceed that necessary to illuminate and make legible a sign from the adjacent travel way or closest municipal street, and the illumination of a sign shall not be noticeably brighter than other lighting in the vicinity.
		(4) Direction of lighting. Exterior sources of lighting for signs and other uses on the property should be directed downward and shall not be directed toward nearby residential properties.
N/A		
YES	NO	(c) Allowed signage. Within the Town Center, all buildings shall be allowed the signage set out in Subsections (d) through (g) below.



N/A		
YES	NO	(d) Single-tenant buildings. Each single-tenant building shall be allowed a total of fifty (50) square feet of signage to be used in one (1) or two (2) building identification signs, and one (1) additional sign which does not exceed eighteen (18) square feet in size.
N/A		
YES	NO	(e) Multi-tenant buildings. Each building containing more than one (1) business or tenant shall be allowed a total of fifty (50) square feet of signage to be used in one (1) or two (2) building identification signs or building directories, and two (2) signs per tenant which do not exceed eighteen (18) square feet each.
N/A		
YES	NO	(f) Multiple buildings. Where a project contains multiple buildings, the first building shall be allowed a total of fifty (50) square feet of building identification signage, and all subsequent buildings shall be allowed eighteen (18) square feet which may only be used to identify the second or subsequent building and may not be added to the signage allowed for the primary project sign or first building within the project.
N/A		
YES	NO	 (g) Hotel and condominium (residential complex) signs. (1) Only one (1) building identification sign shall be permitted for each hotel, condominium or multi-family project. Such identification sign shall not exceed thirty-six (36) square feet in size. (2) Individual building identification signs shall be permitted for each building within a hotel, condominium or other multifamily complex, provided that only one (1) sign not exceeding four (4) square feet in size shall be allowed for each building.



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N/A

YES	NO	
\boxtimes		Sec. 16-11-460 Sign Zone B.
		 (a) Sign design and materials. (1) Permanent signs should be constructed predominantly of natural materials, such as rough cedar, redwood, pine or other types of wood. Plastic or other similar materials are not prohibited, but shall be designed in a manner that is compatible with the proposed development. (2) List of acceptable materials: a. Rough cedar. b. Redwood. c. Pine. d. Stone. e. Brass. f. MDO plywood. g. Materials that simulate natural materials and are approved by the Planning and Zoning Commission. h. Pan channel letters.
YES	NO	 (b) Lighting requirements. (1) Shielded lighting. Light bulbs or lighting tubes used for illuminating a sign shall not be visible from the vehicular travel lanes of adjacent public rights-of-way. The use of adequate shielding, designed so that light from sign-illuminating devices does not shine directly into the eyes of passing motorists without first being reflected off the sign or its background, is required whenever exterior sign lighting is used. (2) Subdued lighting. The intensity of sign lighting shall not exceed that necessary to illuminate and make legible a sign from the adjacent travel way or closest municipal street, and the illumination of a sign shall not be noticeably brighter than other lighting in the vicinity. (3) Direction of lighting. Exterior sources of lighting for signs and other uses on the property shall not be directed toward nearby residential properties.

(c) Sign Zone B. Within the Sign Zone B area, all buildings shall be allowed the signage as set out in Subsections (d) through (f) below.



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YES	NO	(d) Single-tenant buildings. Each single-tenant building shall be allowed a total of seventy-five (75) feet of signage to be used in one (1) or two (2) building identification signs, and one (1) additional sign which does not exceed thirty (30) square feet in size.
with a total of feet total, 1 wi feet total. The	116.68 squa ndow sign a developme ss Area Dire	osing 4 building signs, 1 on each elevation of the building, are feet. Also proposed is two menu signs at 56.95 square at 5.80 square feet, and 4 directional signs at 16.59 square nt also proposes 1 Tenant Sign on Sign 2 of the Ridge at actory sign (located on the proposed lot 9-10R) with a total of
		 (e) Multi-tenant buildings. Each building containing more than one (1) business or tenant shall be allowed a total of seventy-five (75) square feet of signage to be used in one (1) or two (2) building identification signs or building directories and signage for tenants based on the following: (1) Where a project contains multiple buildings, the first building shall be allowed a total of seventy-five (75) square feet of building identification signage, and all subsequent buildings shall be allowed twenty-five (25) square feet, which may only be used to identify the second or subsequent building and may not be added to the signage allowed for the building and may not be added to the signage allowed for the
		identification signs or building directories and signage for tenants based on the following: (1) Where a project contains multiple buildings, the first building shall be allowed a total of seventy-five (75) square feet of building identification signage, and all subsequent buildings shall be allowed twenty-five (25) square feet, which
		(2) Each business or tenant occupying less than two thousand five hundred (2,500) square feet of floor area shall be allowed a total of thirty (30) square feet of signage that may be used in one (1) or two (2) signs, plus an additional ten (10) square feet of signage that may be used as window signage, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony.
		(3) Each business or tenant occupying between two thousand five hundred (2,500) square feet and five thousand (5,000) square feet of floor area shall be allowed a total of forty (40) square feet of signage that may be used in one (1) or two (2) signs, plus an additional ten (10) square feet of signage that may be used as window signage, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or

balcony.



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☐ (4) Each business or tenant occupying between five thousand (5,000) square feet and nine thousand nine hundred ninety-nine (9,999) square feet of floor area shall be allowed a total of forty-five (45) square feet of signage that may be used in one (1) or two (2) signs, plus an additional ten (10) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony. (5) Each business or tenant occupying between ten thousand (10,000) square feet and fourteen thousand nine hundred ninety-nine (14,999) square feet of floor area shall be allowed a total of fifty (50) square feet of signage that may be used in one (1) or two (2) signs, plus an additional ten (10) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony. (6) Each business or tenant occupying between fifteen thousand (15,000) square feet and nineteen thousand nine hundred ninety-nine (19,999) square feet of floor area shall be allowed a total of sixty (60) square feet of signage that may be used in one (1) or two (2) signs, plus an additional ten (10) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony. (7) Each business or tenant occupying between twenty thousand (20,000) square feet and twenty-four thousand nine hundred ninety-nine (24,999) square feet of floor area shall be allowed a total of seventy (70) square feet of signage that may be used in one (1) or two (2) signs, plus an additional twenty (20) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony. (8) Each business or tenant occupying between twenty-five thousand (25,000) square feet and twenty-nine thousand nine hundred ninety-nine (29,999) square feet of floor area shall be allowed a total of eighty (80) square feet of signage that may be used in one (1) or two (2) signs, plus an additional twenty (20) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be

displayed under the overhang or balcony.



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(9) Each business or tenant occupying greater than thirty thousand (30,000) square feet of floor area shall be allowed a total of ninety (90) square feet of signage that may be used in one (1) or two (2) signs, plus an additional twenty (20) square feet of signage that may be used as window signs, or, in those instances where a roof overhang or balcony exists over the entry, the Planning and Zoning Commission may allow this additional signage to be displayed under the overhang or balcony.

N/A

YES	NO

Sec. 16-11-470. - Maximum sign area matrix.

The following limits apply to Sign Zone A and Sign Zone B, as indicated:

Sign Zone A	Allowed Sign Area
Single-tenant building	50 sq. ft. to be used in one or two signs for building identification; additional sign not to exceed 18 sq. ft.
Multi-tenant building: two signs per tenant	18 sq. ft.
Multi-tenant building with multiple buildings	First building is allowed a total of 50 sq. ft. to be used in one or two signs for building identification; all subsequent buildings allowed 18 sq. ft.
Official Sign	100 sq. ft.
Residential complex signs	36 sq. ft.; one per project



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N/A

YES NO

Sign Zone B	Allowed Sign Area
Single-tenant building	75 sq. ft. to be used in one or two signs for building identification; additional sign not to exceed 30 sq. ft.
Multi-tenant building:	
less than 2,500 sq. ft.	30 sq. ft.
2,500 to 4,999 sq. ft.	40 sq. ft.
5,000 to 9,999 sq. ft.	45 sq. ft.
10,000 to 14,999 sq. ft.	50 sq. ft.
15,000 to 19,999 sq. ft.	60 sq. ft.
20,000 to 24,999 sq. ft.	70 sq. ft.
25,000 to 29,999 sq. ft.	80 sq. ft.
greater than 30,000 sq. ft.	90 sq. ft.



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Official Sign	100 sq. ft.
Residential complex signs	75 sq. ft. total; up to two per project

The development is proposing 4 building signs, 1 on each elevation of the building, with a total of 116.68 square feet. Also proposed is two menu signs at 56.95 square feet total, 1 window sign at 5.80 square feet, and 4 directional signs at 16.59 square feet total. The development also proposes 1 Tenant Sign on Sign 2 of the Ridge at Dillon Business Area Directory sign (located on the proposed lot 9-10R) with a total of 7.40 square feet.

YES	NO
\times	

All Areas	Allowed Sign Area
Business area directory sign	100 sq. ft.
Tenants within the BAD sign	50 sq. ft.
Subdivision entry signs	20 sq. ft.; one per subdivision
Wall signs above the 2nd floor	12 sq. ft.
Civic event banners	4 feet x 40 feet
Grand opening banners	40 sq. ft.
Temporary directional signs	6 sq. ft.
Real estate development signs	32 sq. ft.; one per development
Real estate for sale signs	6 sq. ft.; 16 sq. ft. for parcels greater than 2 acres
Real estate for rent signs	6 sq. ft.; one per property or residential unit



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Garage sale signs	4 sq. ft.
Sandwich board signs	30" wide by 36" high
Temporary signs and banners	24 sq. ft.
Temporary feather banners	36 sq. ft.
Temporary banners on temporary structures	24 sq. ft.
Temporary sign in lieu of a permanent sign	24 sq. ft.
Temporary sign in lieu of a monument sign panel	Match size of approved sign panel
New business signs	24 sq. ft.
Window sign	May cover a maximum of 50% of the surface area of the window.
Kiosks	20 sq. ft.; 6 feet in height
Neon/nonflashing illuminated window signs	Up to 6 sq. ft. per sign. Each neon sign may cover the entire window surface area.
Individual business signs located on directory way-finding signs	8 sq. ft.

YES	NO
\boxtimes	

Division 7 - Master Sign Plans Sec. 16-11-480. - Approval required.

All buildings containing two (2) or more separate businesses shall obtain approval of a master sign plan from the Planning and Zoning Commission prior to any individual signs being erected in or upon any structure or site. All individual signs erected or maintained on the site or within the structure shall conform at all times to the approved



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master sign plan. Any deviations from an approved master sign plan shall be unlawful unless and until a revised master sign plan is approved by the Commission.

at least two (2) of the following design elements in common: size,

shape, materials, letter style and color.

YES	NO	
		Sec. 16-11-490 Master sign plan application. An application for a master sign plan as specified in Section 16-11-70 of this Article shall include at least the following information: (1) The total amount of allowable sign area for the structure;
		 and (2) The location, materials and maximum area for each sign that an individual business will be allowed to display. Directory signs, building identification signs, information signs and display boxes, if any, shall be included in the master sign plan.
N/A		
YES	NO	Sec. 16-11-500 Nonconforming master sign plans. A permit for a new master sign plan shall be obtained within ninety (90) days of receipt of notice from the Town Manager that an existing master sign plan for any structure does not contain all the information required by this Article, or if signs displayed in or upon the structure do not comply with the provisions of this Article.
N/A		
YES	NO	
		Sec. 16-11-510 Criteria.
		Approval of a master sign plan shall be based on general compatibility with the architectural character of the community and project. Individual signs within a master sign plan, including directory signs, building identification signs and individual business signs, should be consistent. It is encouraged that signs allowed by a master sign plan be of a coordinated design, with each of the individual signs sharing



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YES	NO	
\boxtimes		Sec. 16-11-520 Individual sign permits.
		Individual sign permits are required for signs contained within an approved master sign plan. Permits shall be obtained through a Class 2 application.
		Sec. 16-11-530 Survey.
		Upon adoption of the ordinance codified in this Article, the Town Manager may conduct a survey of all signs within the Town to identify those signs which are not in compliance with this Article.
YES	NO	
		Sec. 16-11-540 Legal nonconforming signs.
		Permanent signs legally erected prior to the effective date of the ordinance codified in this Article which are not prohibited signs under Section 16-11-60 of this Article shall be deemed to be legal nonconforming signs. Such signs shall be maintained notwithstanding their noncompliance with this Article; provided, however, that such nonconforming signs shall not be:
		□ (1) Expanded;
		(2) Altered so as to change the copy of such sign;
		 (3) Continued in use after cessation or change of the business to which the sign pertains; or
		(4) Reestablished after damage or destruction if the estimated cost of the reconstruction exceeds fifty percent (50%) of the estimated replacement cost as determined by the Planning and Zoning Commission.
N/A		
YES	NO	
		Sec. 16-11-550 Illegal nonconforming signs.



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Signs to be removed immediately. The following types of signs and devices shall be removed within ten (10) days after the effective date of the ordinance codified in this Article:

(1) Attention-getting devices.
(2) Statuary signs.
(3) Temporary signs, including banners, except as
specifically authorized in Division 5 of this Article or as
exempted pursuant to Division 2 of this Article.
(4) Walking signs, including costumed characters used for
commercial advertising purposes which are visible from any
public right-of-way, any adjacent building or any public area.

N/A

EXHIBIT D

Panera Bread PUD Development Plan
Staff Report

ARCHITECTURAL REVIEW PACKET

Architectural Review Summary

Chris Holzwart, Roth Sheppard Architects January 8, 2019

Please see our Position and Meeting Summary, below:

Jeff Parker (of Jeffrey Parker Architects) and other design and development team members (All to be referred to as 'Applicant') met with Chris Holzwart of Roth Sheppard Architects (RSA), Ned West of Town of Dillon (ToD), and Ellie Garza of THK Associates on Tuesday, January 08 @ 1:30pm MST, to perform a remote video-conference review of the proposed design for "Panera Bread" (to be referred to as "Project") relative to the Town of Dillon - Design Guidelines (to be referred to as "Guidelines").

Position

As stated during the meeting – Roth Sheppard (RSA, on behalf of the Town of Dillon) supports the design direction for the Project as it relates to the Guidelines. The design successfully utilized many of the 'Mountain-style' principles within the Guidelines, with only minor comments that are further described below.

Meeting Summary

RSA walked the group through the Design Standards Checklists and provided commentary upon items which required further information, or were not sufficiently represented in the application materials. Since the Checklists are comprised of requirements set forth by the Guidelines, the emboldened items below are contingent upon our recommendation for Approval and should be (re)submitted to the Town of Dillon for review.

Checklists of Design Standards

See attached Checklist PDF

Materials Board

 Applicant to provide product literature for the Coronado Stone to ensure that it meets dimensional requirements written in the Guidelines.

Roof / Runoff Mitigation Plan

Applicant to provide a Roof Plan w/ the following information:

- Roof Slopes indicated at non-flat roofs
- Roof Drainage strategy clarified for each roof
- Downspout locations @ roofs that shed to grade

Site Section

Applicant to provide a Site Section to illustrate RTU concealment strategy as it relates to surrounding site lines

Elevations

Applicant to provide Building Elevations w/ the following updates:

- Proposed downspout locations
- Control joint lines at all EIFs surfaces
- Dimensions for Transparent vs Solid surfaces @ south elevation
- Element(s) of interest @ north EIFs blank wall
- Consideration of breaking stone base at gable volume per discussion to accentuate volume modulations

General Design Discussion Summary for the Applicant's consideration:

• Concerns over open sunshade canopy above the Main Entry was mentioned.

Items to consider that were not discussed during the meeting:

- If utilization of a new transformer is required, where can it be located to be visually unobtrusive?
- Applicant should address the Xcel Energy's rules, and propose a gas meter location in the site plan / and elevations, to avoid placing meter in a less-ideal placement as the design develops.

We believe this concludes our participation as a design review consultant for the 'Panera Bread' project, and will await to hear from the Town of Dillon if we are requested to review any additional materials, address comment responses, or revisions.

Thanks,

CHRIS HOLZWART, AIA, NCARB, LEED® AP

ROTH SHEPPARD ARCHITECTS, LLP

1900 WAZEE STREET, SUITE 100 | DENVER, COLORADO 80202 T:303.534.7007 F:303.534.7722 | <u>www.rothsheppard.com</u>

2012 AIA WESTERN MOUNTAIN REGION FIRM OF THE YEAR



2 CHARACTER & ENVIRONMENT

DESIGN STANDARDS CHECKLIST

RSA REVIEW: 01/08/19

SECTION	APPLICANT Y/N	P&Z Y/N	P&Z COMMENTS
DRAW AUTHENTICITY FROM HISTORIC ARCHITECTL	JRE	M have	
Symbolic connection to historic architecture	Y	Y	
DEFINE THE PUBLIC DOMAIN	N III JEW		
2-story datum at buildings taller than 2 stories	N/A	N/A	
Building base use(s) meets intent of acceptable uses	Y	Y	- THE REAL PROPERTY OF THE PERSON OF THE PER
Base height relates to 2-story datum, where possible		Y	
15' floor-to-floor height at grade level	N/A	N/A	GUIDELINE INTENDED PRIMARILY FOR URBAN RETAIL USES
Window sills no higher than 36"	Y	Y	
Storefront mullion colors to be dark (other finishes approved on a case-by-case basis)	Y	Y	
Glazing meets or exceeds 60% transparent/40% solid ratio at <u>primary façade</u> base	Y	N	APPLICANT TO PROVIDE T / S DIMS @ SOUTH ELEVATION
Simply detailed storefront design	Y	Y	
Roofs/awnings designed for snowmelt mitigation	Ÿ	Y	
Fabric awning slope 1:3	Y	Υ	APPEARS TO EXCEED
Permanent awning slope 3:12	N/A	N	NO ROOF PLAN SUBMITTED OR CLARIFIED IN ELEV'S
Primary façade to have main building entrance	4	Y	SOUTH ELEVATION
(2) primary façades for buildings with (3) façades visible from public right-of-way	N/A	Y	EAST ELEVATION & SOUTH ELEVATION
Façade materials should wrap corners a min. of 24"	4	Y	
Blank walls visible to the public are not acceptable	Y	N	SEE EMAIL COMMENTS RE: EIF WALL @ NORTH ELEVATION
CREATE COMPLEMENTARY DEVELOPMENTS	REMER	NE ST	
National brands adoption of these Guidelines for exterior architectural design	Y	Y	
TAKE ADVANTAGE OF THE CLIMATE			
Conceal rooftop utilities from sight	Y	N	ROOF PLAN AND SITE SECTION SEE EMAIL COMMENTS.

23

March 2017



3 BUILDING FORM & ARTICULATION

DESIGN STANDARDS CHECKLIST

SECTION	APPLICANT Y/N	P&Z Y/N	P&Z COMMENTS
EXPRESS THE BASE, MIDDLE, & TOP	er II III	31.6	
Articulate building façades into Base, Middle, & Top	Y	Y	
Description of Base, Middle, & Top in Design Narrative	Y	Υ	
No overly complex roofs or incompatible roof styles	Y	Y	SIMPLE SHED & FLAT ROOFS
Use of proportional rules for Base, Middle, & Top	Y	Y	1/3 BASE : 2/3 MIDDLE
EXPRESS THE BUILDING WEIGHT & STRUCTURE		A CONTRACT	
Description of contextual influence emphasis relative to apparent weight: Mountain or Lake	Y	Υ	MOUNTAIN AESTHETIC PRINCIPLES ARE MOST APPLICABLE
BUILDING HEIGHTS & VIEW CORRIDORS	ST SIST SI	NEW WATER	
Modulate façades above 2-story datum to differentiate from building base	NA	Υ	SEE EMAIL COMMENT AND DISCUSSION RE: CONTINUOUS BAND OF STONE @ BASE.
EXPRESS THE ROOF FORM	SPACE IN		
Emphasize Top layer that caps building volumes below	Y	Y	Wints = St. John St. Co.
5:12 minimum, and 12:12 maximum roof slope (steeper sacceptable if <u>Jewel building</u>)	Y	· N	APPLICANT TO PROVIDE ROOF PLAN
3:12 min. roof slope for projections/permanent awnings	Y	N	APPLICANT TO PROVIDE ROOF P
No mansard-style roof forms	Y	Ŷ	
Simple, powerful, character-defining roof(s)	Y	Y	SIMPLE SHED & FLAT ROOFS
Dormers set in a consistent rhythm, set 3' back from eave edge or projecting past eave edge	ν/д.	N/A	
Shed and gable roofs: 24" min. roof overhang at primary façades, 18" min. roof overhang at secondary façades	Y	Y	
Use of structural beams, outriggers, and/or brackets at 18"+ roof overhangs. 2"x2" minimum dimension for exposed support ends	Y	Y	WOOD BRACKETS USED THROUGHOUT
Roof runoff mitigation plan	Y	N	APPLICANT TO PROVIDE ROOF P
CREATE RECESSES & PROJECTIONS		A O ME	
Use of projections to protect building entrances	Y	Υ	CONCERNS RE: OPEN SUNSHADE AND SNOW RETENTION/CLEARING
Concealed drainage at projections	Ч	N	APPLICANT TO PROVIDE ROOF P

March 2017



4 CRAFT, MATERIALS, & COLORS

DESIGN STANDARDS CHECKLIST

SECTION	APPLICANT Y/N	P&Z Y/N	P&Z COMMENTS	
HIGHLIGHT THE CRAFT				
Utilize or mimic authentic fastening and joinery methods	Y	Y	APPLICANT TO FOCUS ON CRAFTED DETAILS AS DESIGN DEVELOPS	
Pragmatic and highly crafted architectural features	Y	Y		
USE LOCAL MATERIALS & TEXTURES				
Minimum of (2) primary façade materials	Y	Y	WOOD, STONE, STUCCO	
Stone heights min. 4"H, with preference for 8-12"H	Y	N	APPLICANT TO PROVIDE PRODUCT DATA	
Materials wrap building corners min. of 24"	Y	Υ		
Ashlar pattern at stone cladding	Υ	Υ		
Rough-sawn or hand-hewn finish at timbers	Y	Υ	DISCUSS CEDAR BRACKETS	
Use of acceptable wood cladding patterns	Υ	Υ	VERTICAL	
Use of metal cladding for roof and/or wall accent only	Y	Υ	ROOF	
Use of acceptable metal wall and/or roof patterns	Y	Υ	NO METAL WALLS APPLICABLE STANDING SEAM ROOF PATTE	
Clear glazing ratio of 60% min. glazing to 40% solid	Y	Υ	APPEARS TO COMPLY @ SOUTH ELEVATION	
Clear glazing with no more than 10% light reduction. No opaque films or glass at <u>public domain</u> .	Y	Y	GLAZING DESCRIBED AS CLEAR	
Stucco at building Middle layer, not Base layer	Y	Υ		
COLOR PALETTES & ACCENTS	THE DATE	A PARSIL		
Darker tone storefront mullion color	Y	Υ		
Natural color palette with combination of marine accents (if Lake style influences)	Y	Υ	EARTH-TONE PALETTE THRUOUGHOUT INDICATED MORE MOUNTAIN-STYLE AESTHETIC	
Façade colors of medium to dark natural tones. Bright colors only used for interventions or minor focal elements.	Y	Y	UNITY LEAF - COLORED SUNBRELLA CANVAS AWNINGS SERVE AS BRIGHT-COLORED INTERVENTIONS	
Roof colors of dark natural tones (unless galvanized), muted, low reflectivity, natural tones. Bright colors only used for interventions or minor focal elements.	Y	Y		
10% maximum area usable for accent colors on façades	Υ	Υ	COLORED SUNBRELLA CANVAS AWNING	

855 28th Street SE, Grand Rapids, MI 49508 | 616-241-0090 | jp-architects.com

Panera Bread Bakery Café

Dillion, CO Architectural Design Review Response Letter February 28, 2019

Please see our responses (in red) to the architectural plan review comments from Chris Holzwart (Roth Sheppard Architects) dated 1-8-2019:

Materials Board

- Applicant to provide product literature for the Coronado Stone to ensure that it meets dimensional requirements written in the Guidelines.
- Literature and Spec sheet have been provided regarding the Corondado Stone illustrating its conformance with the requirements. In addition to that the grout is to be natural grey in color.

Roof / Runoff Mitigation Plan

Applicant to provide a Roof Plan w/ the following information:

- Roof Slopes indicated at non-flat roofs
- Roof Drainage strategy clarified for each roof
- Downspout locations @ roofs that shed to grade
- A roof plan (sheet A102) has been provided illustrating the roof slopes and drainage strategies. Downspout locations have been marked on the elevations.

Site Section

Applicant to provide a Site Section to illustrate RTU concealment strategy as it relates to surrounding site lines

 A section (sheet A303) has been provided illustrating RTU concealment via raised parapets.

Elevations

Applicant to provide Building Elevations w/ the following updates:

- Proposed downspout locations
 - Marked on elevations
- Control joint lines at all EIFs surfaces

- EIFS was changed to 4'x8' cement board panels, "joints" have been illustrated on elevations.
- Dimensions for Transparent vs Solid surfaces @ south elevation
 - o Dimensions have been add to illustrate transparent vs solid ratios
- Element(s) of interest @ north EIFs blank wall
 - A window w/ spandrel glass & canvas awning have been added to wall
- Consideration of breaking stone base at gable volume per discussion to accentuate volume modulations
 - The stone base has been removed and replaced w/ the engineered wood cladding run horizontally.



ENGLISH RUBBLE



Installation Specifications

At www.CORONADO.com product specifications can be downloaded in CSI format.

Choices Specific to English Rubble

Standard Colors: Black Hills, Cascade Blend, Dakota Brown, Hazelwood, Newport Sandstone, Pebble Beach Blend,

(Any Standard or Custom color)

Grout Joint Width: Standard ½" Grout Joint, 1" Grout Joint for European Look Grouting Options: Brushed, Deep Raked, Full Smooth Tooled or Full Brushed Grout Joint Color: Natural Grey, Natural Off-White or Complementary Color

Accessories: Corners, Complementary Tiles, Wall Caps, Post Caps and more. (See Accessories section of binder)

Special Installation Notes

Pattern: Continuous horizontal joints that transition slightly higher and lower with the occasional termination of the joint.

To achieve additional angled transitions some trimming may be required. This stone should not be installed in a vertical position. Blend the stone on the wall from several different boxes to ensure proper color and size variation.

See catalog photos for recommended installation pattern.

Chalk Lines: Should be used by installer to ensure a straight and level pattern.

Vertical Joints: Avoid exceeding one stone in height.

Horizontal Joints: Continuous running pattern.

Sealing: Not required. However, if installed on an exterior exposed to excessive water from runoff or improper drainage, we

suggest the product be sealed in that particular area to protect it from staining or spalling during freeze-thaw cycles.

Freeze-Thaw: When installing stone in a freeze-thaw environment, extra care should be taken to ensure a full coverage of mortar

on the back of each stone, which will prevent water pooling behind the stone after it's been installed.

Installation Info: Download Coronado's latest installation instructions at www.coronado.com for information on mortar and

installation recommendations.

Profile Properties

Size: Stone sizes range from 6" to 14" in height and 8" to 32" in length (nominal).

Thickness: 11/4" to 2"

Weight: 9 to 12 lbs. per square foot.

Packaging: Available in big boxes (80 sq ft Flats & Corners sold by the linear foot).

When purchasing English Rubble, coverage is based on installation with a 1/2" joint at the back of the stone.

1/2" Brushed Grout Joint



ENGLISH RUBBLE COLOR: NEWPORT SANDSTONE

1/2" Brushed Grout Joint



ENGLISH RUBBLE

COLOR: BLACK HILLS

EXHIBIT E

Panera Bread PUD Development Plan
Staff Report

SUMMIT FIRE & EMS PRELIMINARY SITE PLAN REVIEW



SUMMIT FIRE & EMS AUTHORITY

(970) 262-5100

P.O. Box 4428

Dillon, CO 80435

Summitfire.org

January 2, 2019

Ms. Ellie Garza Planning Consultant PO Box 8 Dillon, CO 80435

Re: Panera Bread Site Plan Review

Dear Ms. Garza.

Thank you for the opportunity to review and comment on the above proposed site plan. Summit Fire & EMS has the following comments and concerns regarding the proposed project plans

- 1. A construction permit through the fire department is required for this project.
- 2. Based on the size and type of occupancy, this project shall require an approved fire sprinkler system for the building. Please advise the developer to size the waterline into the building to meet fire sprinkler and domestic water demand accordingly.
- 3. The proposed building will require the following life safety systems: a fire sprinkler system and a fire alarm system. See fire department for permit requirements.
- 4. Based on the occupancy type, square footage of the building and height of the building, the following approved fire protection systems are required: a fire sprinkler system, a fire alarm system and a dry fire standpipe system. See fire department for details.
- 5. Size the waterline into the building to meet the fire sprinkler and domestic water use demand.
- 6. The proposed new fire hydrant may require bollard protection based on its final location.
- 7. The developer shall provide a detailed drawing of all the cooking appliances to be installed in the kitchen. Based on that information, additional fire protection systems may be required.
- 8. Based on the size of the building, type of construction and radio signal strength in the building, an emergency responder radio amplification system may be required. See fire department for details.
- 9. The fire department suggests a meeting with the developer and contractor to discuss the fire code and life safety systems requirements for the building.

Kim J McDonald Fire Marshal Summit Fire & EMS

EXHIBIT F

Panera Bread PUD Development Plan
Staff Report

CONCURRENT FINAL PLAT

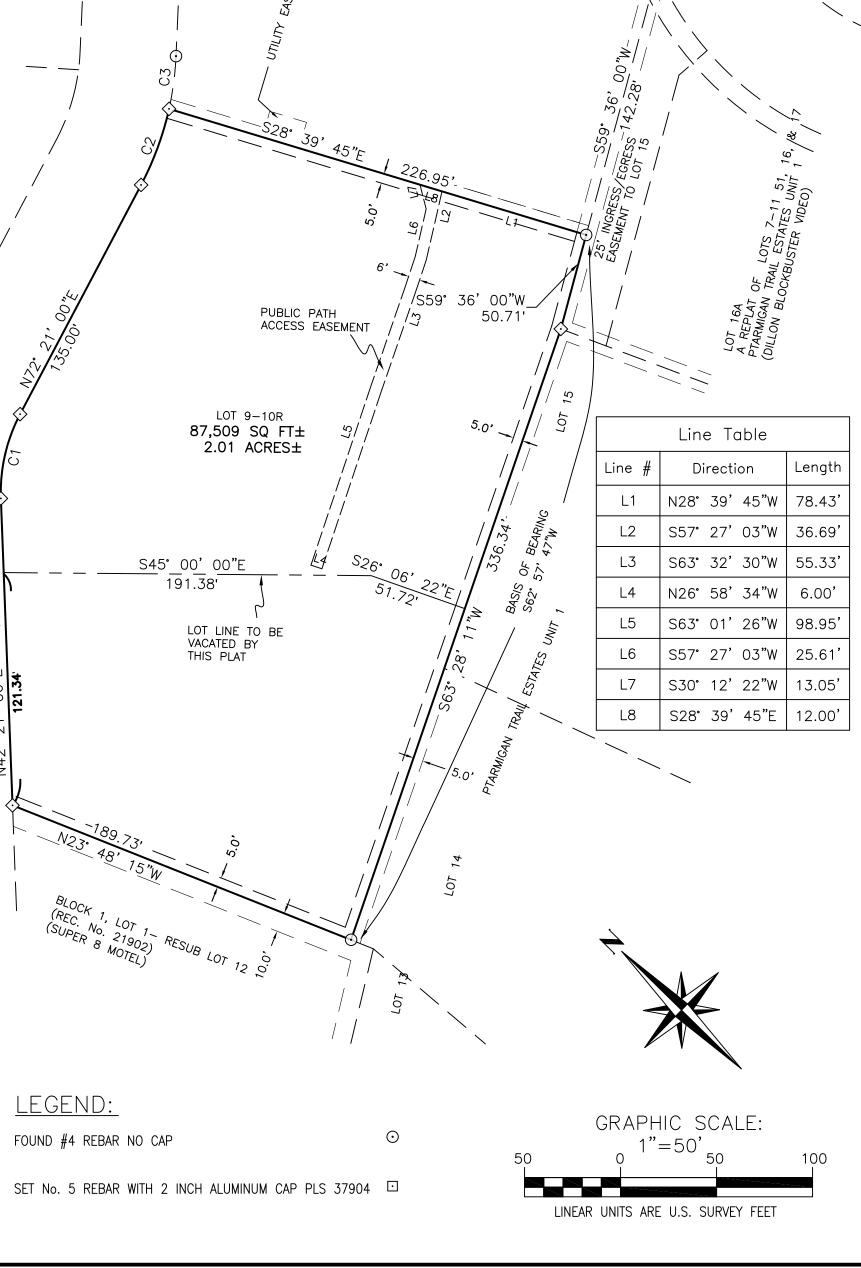
FINAL PLAT

A REPLAT OF LOTS 9R-1 & 10R-1, A REPLAT OF THE RIDGE AT DILLON, ACCORDING TO THE PLAT THEREOF RECORDED 11/23/2010 AT RECEPTION No. 951921

TOWN OF DILLON, COUNTY OF SUMMIT, STATE OF COLORADO

OWNER'S CERTIFICATE KNOW ALL MEN BY THESE PRESENTS: Point at Dillon Ridge Limited, LLLP, a Colorado Limited Liability Limited Partnership, being the owner of______, located in SW 1/4 Section 7, Township 5 South, Range 77 West of the Sixth Principal Meridian, Town of Dillon, County of Summit, State of Colorado, more particularly described as follows: LOTS 9R-1 AND 10R-1, A REPLAT OF THE RIDGE AT DILLON, ACCORDING TO THE FINAL PLAT RECORDED AT NOVEMBER 23, 2010 AT RECEPTION No. 951921 IN THE OFFICE OF THE CLERK AND RECORDER, COUNTY OF SUMMIT, STATE OF COLORADO, AND CONTAINING 87.509 SQ FT± OR 2.009±. Have laid out, subdivided and platted the same into lots, tracts, streets and easements as shown hereon under the name and style of "A REPLAT OF LOTS 9R-1 AND 10R-1. A REPLAT OF THE RIDGE AT DILLON" and by these presents, do hereby set apart and dedicate to the perpetual use of the public all of the streets, alleys and other public ways and places as shown hereon and hereby dedicate those portions of land labeled as easements for the installation and maintenance of public utilities as shown hereon. (and/or other purposes) IN WITNESS WHEREOF,_ caused their names to be hereunto subscribed this____ _____, A.D., 2019. Point at Dillon Ridge Limited, LLLP **ACKNOWLEDGMENT** State of Colorado County of Summit Town of Dillon The foregoing instrument was acknowledged before me this_____ _ A.D., 2019, by_ POINT AT DILLON RIDGE, LLLP Witness my hand and official seal. My commission expires Notary Public DILLON TOWN COUNCIL CERTIFICATE Approved this____ day of__ A.D., 2019, Town Council, Dillon, Colorado. This approval does not guarantee that the size of soil or flooding conditions of any lot shown hereon are such that a building permit may be issued. This approval is with the understanding that all expenses involving necessary improvements for all utility services, paving, grading, landscaping, curbs, gutters, streetlights, street signs and sidewalks shall be financed by others and not the Town of Dillon. Carolyn Skowyra, Mayor Attest: Adrianne Stuckey, Town Clerk

Curve Table					
Curve #	Radius	Length	Delta	CHORD LENGTH	CHORD BEARING
C1	86.96	45.53'	029° 59′ 53″	45.01'	S57° 20' 57"W
C2	158.50'	42.31'	015° 17′ 42″	42.19'	N64° 42' 09"E
С3	158.50'	27.77	010° 02′ 17″	27.73'	N52° 02' 10"E
C4	571.50'	62.67	006° 17′ 00″	62.64'	N43° 52' 30"E
C5	160.00'	96.64	034° 36′ 20″	95.17	S38° 18′ 41"W



10' UTILITY EASEMENT

LOT 8R-1 THE RIDGE AT DILLON

6' PUBLIC SIDEWALK —

EASEMENT

<u>CLERK'S CERTIFICATE</u>

I hereby certify that this instrument was filed in my office at_ 2019, and is duly recorded. Adrienne Stuckey, Town Clerk

State of Colorado County of Summit

DILLON PLANNING AND ZONING COMMISSION CERTIFICATE

, A.D., 2019, Town Planning Approved this____day of__ and Zoning Commission, Dillon, Colorado.

Teresa England, Chairperson

TITLE COMPANY CERTIFICATE

does hereby certify that we have examined the title to all lands shown hereon and all lands herein dedicated by virtue of this Plat and title to all such lands is in the dedicator free and clear of all liens, taxes and encumbrances, except as follows

State of Colorado

County of Summit

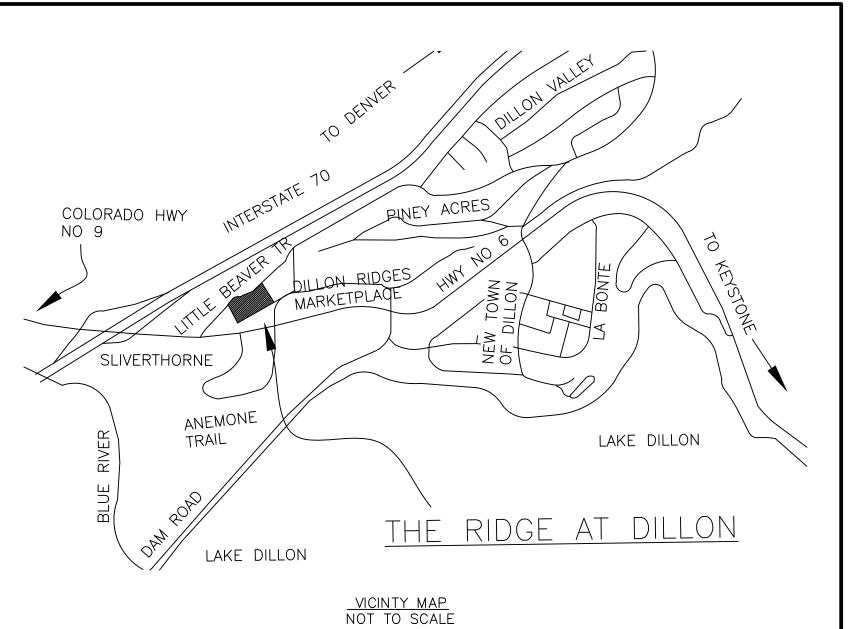
CERTIFICATE OF TAXES PAID

l, the undersigned, do hereby certify that the entire amount of all taxes due and payable as _, 20____, upon parcels of real estate described on this plat are paid in full.

Summit County Treasurer or designee

PLAT NOTES: 1.) Access Ingress and Egress to and from Lot 9—10R shall be provided within the development at all times. Access, Ingress and Egress to and from Lot 9—10R shall be from easement across Lots 7R-1 and 8R-1.

2.) A "Public Path Access" easement is hereby dedicated on this plat and grants to the public a permanent, perpetual, non-exclusive, public path and the sidewalk easement for the use by the general public for access, ingress and egress and travel on and across the property, through Lot 9-10R. The path shall be maintained by the property owner in perpetuity. At some point in the future, an additional easement will be granted to the Town of Dillon by the property owner, to allow public access from this easement and through Lot 9—10R to a connection point location to be determined at a later date by the Town of Dillon.



LEGAL DESCRIPTION:

LOTS 9R-1 AND 10R-1, A REPLAT THE RIDGE AT DILLON, ACCORDING TO THE FINAL PLAT RECORDED AT NOVEMBER 23, 2010 AT RECEPTION No. 951921 IN THE OFFICE OF THE CLERK AND RECORDER, COUNTY OF SUMMIT, STATE OF COLORADO,

AND CONTAINING 87,509 SQ FT± OR 2.009±.

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE WITHOUT USING A CURRENT TITLE POLICY.

2. BEARINGS ARE BASED ON THE A LINE OF BETWEEN FOUND #4 REBARS LOCATED AT THE NORTHEAST AND SOUTHWEST CORNERS OF SAID LOT 9-10R. THE VALUE USED S62°57'47"W, WAS CALCULATED USING PREVIOUS PLAT FILED A REPLAT OF LOTS 9R, 10R AND 11R THE RIDGE AT DILLON RECEPTION No.951921 IN THE RECORDS OF THE COUNTY OF SUMMIT, STATE OF COLORADO

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, a registered Professional Land Surveyor in the State of Colorado, do hereby certify that this Plat represents a field survey completed by me and / or under my direct supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and beliefand that the monuments were placed pursuant to C.R.S 38-51-101. This statement is not a guaranty or warranty, either expressed or implied.

FOR REVIEW
TO RESTANT COLORADO REGISTERED LAND SURVEYOR PLS #37904

FINAL PLAT

PANERA BREAD REPLAT OF LOTS 9R-1 & 10R-1, A REPLAT OF THE RIDGE AT DILLON SW 1/4 SEC. 7 TOWNSHIP 5 SOUTH, RANGE 77 WEST OF THE 6TH P.M.

COUNTY OF SUMMIT, STATE OF COLORADO

JOB #: 2018084

FIELD WORK: PO DATE: 03/01/19 DRAWING NAME: PANERA BREAD DRAWN BY: PC

POLARIS SUR VEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE. #B GRAND JUNCTION, "CO 81504 PHONE (970)434-7038

EXHIBIT G

Panera Bread PUD Development Plan
Staff Report

TRAFFIC IMPACT STUDY

Traffic Impact Study

Panera Bread Dillon, Colorado

Prepared for:

Merritt and Associates GC Inc.



TRAFFIC IMPACT STUDY

Panera Bread

Dillon, Colorado

Prepared for

Merritt and Associates GC Inc. 2102 Highways 6 & 50 Grand Junction, CO 81505

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



September 2018

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.

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF TABLES	ii
LIST OF FIGURES	ii
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	4
3.0 EXISTING AND FUTURE CONDITIONS	6
3.1 Existing Roadway Network	6
3.2 Surrounding Development	8
3.3 Existing Traffic Volumes	8
3.4 Unspecified Development Traffic Growth	8
4.0 PROJECT TRAFFIC CHARACTERISTICS	12
4.1 Trip Generation	12
4.2 Trip Distribution	12
4.3 Traffic Assignment and Total (Background Plus Project) Traffic	14
5.0 TRAFFIC OPERATIONS ANALYSIS	18
5.1 Analysis Methodology	18
5.2 Key Intersection Operational Analysis	19
5.3 Vehicle Queuing Analysis	22
6.0 CONCLUSIONS AND RECOMMENDATIONS	25
APPENDICES	
Appendix A – Intersection Count Sheets	
Appendix B - CDOT Annual Traffic Data	
Appendix C – Trip Generation Worksheets	

Appendix F - Conceptual Site Plan

Appendix D – Intersection Analysis Worksheets

Appendix E – Queueing Analysis Worksheets

LIST OF TABLES

Table 1 – Panera Bread Project Weekday Traffic Generation
Table 2 – Level of Service Definitions
Table 3 – Dillon Ridge Road and Full-Movement Access LOS Results20
Table 4 – Dillon Ridge Road and US-6 LOS Results21
Table 5 – Turn Lane Queuing Analysis Results22
LIST OF FIGURES
Figure 1 – Vicinity Map5
Figure 2 – Existing Lane Configurations7
Figure 3 – Existing Traffic Volumes9
Figure 4 – 2020 Background Traffic Volumes10
Figure 5 – 2040 Background Traffic Volumes11
Figure 6 – Project Trip Distribution
Figure 7 – Project Traffic Assignment15
Figure 8 – 2020 Background Plus Project Traffic Volumes16
Figure 9 – 2040 Background Plus Project Traffic Volumes17
Figure 10 – Recommended Lane Configurations and Control

1.0 EXECUTIVE SUMMARY

A Panera Bread restaurant is proposed within The Ridge at Dillon retail center along the north side of Dillon Ridge Road, north of US-6 in Dillon, Colorado. For purposes of this traffic evaluation, the project was studied to include an approximate 4,500 square foot fast food restaurant with drive-through window. It is expected that project construction will be completed within the next couple of years. Analysis was therefore completed for the 2020 short term build out horizon as well as the 2040 long-term twenty-year horizon.

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

- Dillon Ridge Road Full-Movement Access
- US Highway 6 and Dillon Ridge Road

Regional access to the project will be provided by Interstate 70 (I-70) and US-6. Primary and direct access to The Ridge at Dillon has and will continue to be provided by Dillon Ridge Road. An existing full-movement access to the project site exists along Dillon Ridge Road, approximately 375 feet north of the US-6 and Dillon Ridge Road intersection (measured center to center). The project is expected to generate a total of approximately 2,120 daily weekday trips with 181 of these trips occurring during the morning peak hour and 147 new trips during the afternoon peak hour. The Saturday peak hour of generator includes 247 total trips with 126 trips entering and 121 trips exiting.

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, demographic information, anticipated surrounding development areas, and the proposed access system for the project. Assignment of traffic was based upon the trip generation described previously and the distributions developed. The traffic assignment was added to the background traffic volumes to determine future traffic with the project.

Based on the analysis presented in this report, Kimley-Horn believes the proposed Panera Bread in Dillon, Colorado will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

- It is recommended the intersection of Dillon Ridge Road and the full movement project access be improved to include All-Way Stop Control. R1-1 "STOP" signs should be installed on the eastbound and westbound approaches. In addition, R1-4 "ALL WAY" plaques should be installed underneath all four "STOP" signs. Since this will be a change in control unfamiliar to drivers traveling along Dillon Ridge Road, it is recommended that two red flags be affixed to the top of the new "STOP" signs at 45-degree angles for the new stop control on the eastbound and westbound approaches. These flags should remain for a period of approximately three to six months.
- Additional operational improvements should be considered for the Dillon Ridge Road access intersection by adding striping to the north leg of this access to designate a separate left turn lane. It is believed that the existing driveway is wide enough to designate three lanes with one entering lane and two exiting lanes (a separate left turn and a shared through/right turn lane). This will improve operations of the intersection by processing two vehicles out of the access at the same time under the recommended all way stop control condition.
- With development of the project, it is recommended that the 65-foot eastbound left turn lane at the Dillon Ridge Road full movement access intersection be restriped to include 100 feet of storage length. Incorporation of all-way stop control and striping the southbound approach to include separate left turn and shared through/right turn lanes will help alleviate the queue issues for traffic exiting The Ridge at Dillon retail center. However, it is anticipated that the existing 25-foot throat depth may be exceeded during the Saturday midday peak hour. The all-way stop control will allow traffic to continue moving. If traffic exiting from the Walgreens to the east blocks entering traffic into the retail center, operations could be improved by closing off the first drive aisle to the Walgreen's site. This could be considered if found to be needed.

- Unrelated to this project, a traffic deficiency exists for the northbound left turn at the US-6 and Dillon Ridge Road/Anemone Trail intersection. Acceptable operations result, however the northbound left turn queue may extend through the Little Dam Street intersection to the south during the peak hours. This is likely why there are separate left turn and a shared left turn/through lane on the northbound approach at the US-6 signalized intersection today to address left turn movements in two lanes. If possible, raised pork chop island channelization for the eastbound right turn lane (deceleration and acceleration) could be added so that the stop bar on the south leg could be moved further north. This would allow for the northbound approach to have an extended queue space on this approach due to the absence of a crosswalk on this leg. If channelizing islands were added to the north side of US-6 as well, the pedestrian crossing distance of the west leg would be significantly reduced, which would improve signal operations, as well as an overall improvement with a true free southbound right turn. These improvements could be considered by CDOT and the Town of Dillon if desired as it is understood that this may impact snow removal operations during the winter.
- By year 2040 the 65-foot eastbound left turn lane at the Dillon Ridge Road and full movement access intersection may need to be restriped to include 100 feet of storage length.
- All on-site and off-site roadway, signing, striping, and signal improvements should be incorporated into the Civil Drawings, and conform to Town of Dillon and Colorado Department of Transportation standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

2.0 INTRODUCTION

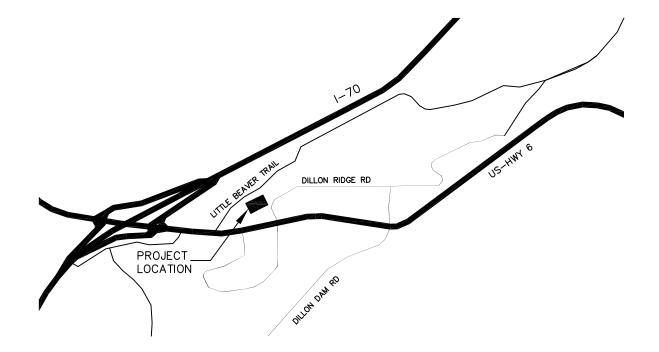
Kimley-Horn and Associates, Inc. (Kimley-Horn) has prepared this report to document the results of a Traffic Impact Study of future traffic conditions associated with a proposed Panera Bread project proposed within The Ridge at Dillon retail center. The project will include constructing a new restaurant building within the existing Ridge at Dillon along the north side of Dillon Ridge Road, north of US-6, in Dillon, Colorado. A vicinity map illustrating the location of the project site is shown in **Figure 1**.

For purposes of this traffic evaluation, the project was studied to include an approximate 4.500 square foot fast food restaurant with a drive-through window. A conceptual site plan of the project is provided within **Appendix F**. It is expected that project construction will be completed within the next two years. Analysis was therefore completed for the 2020 short term build out horizon as well as the 2040 long-term horizon.

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

- Dillon Ridge Road Full-Movement Access
- US Highway 6 and Dillon Ridge Road





PANERA BREAD DILLON VICINITY MAP

FIGURE 1



3.0 EXISTING AND FUTURE CONDITIONS

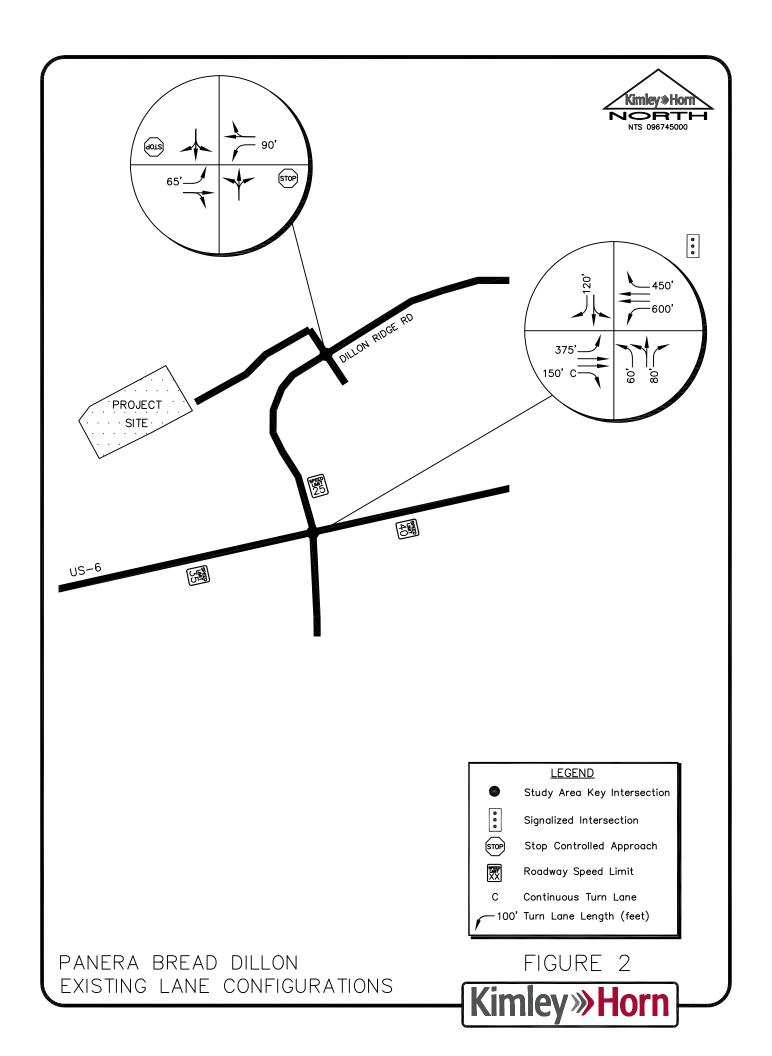
3.1 Existing Roadway Network

Regional access to the project will be provided by Interstate 70 (I-70) and US-6. Primary and direct access to The Ridge at Dillon has and will continue to be provided by Dillon Ridge Road. An existing full-movement access to the project site exists along Dillon Ridge Road, approximately 375 feet north of the US-6 and Dillon Ridge Road intersection (center to center).

US Highway 6 is a CDOT Highway, categorized NR-B: Non-Rural Arterial that provides two through lanes of travel eastbound and westbound in the vicinity of the site. US-6 has a 35 mile per hour speed limit to the west of the US-6 and Dillon Ridge Road intersection and a 40 mile per hour speed limit to the east of the US-6 and Dillon Ridge Road intersection. Dillon Ridge Road provides one through lane of travel northbound and southbound with a 25 mile per hour speed limit through the study area. Additionally, Dillon Ridge Road has an existing striped median throughout the project area that transitions to left turn lanes at access intersections in the site vicinity.

The intersection of US-6 and Dillon Ridge Road is currently signalized with protected-permitted left turn phasing on the eastbound and westbound US-6 approaches and split phasing on the northbound and southbound Dillon Ridge Road/Anemone Trail approaches. The eastbound and westbound approaches on US-6 provide a left turn lane, two through lanes, and a right turn lane. Acceleration lanes from right turn movements of the side street access approaches also exist at this intersection along US-6. The northbound approach on Anemone Trail provides a left turn lane, a shared left turn/through lane, and a right turn lane. The southbound approach on Dillon Ridge Road provides a shared through/left turn lane and a right turn lane.

The Dillon Ridge Road access intersection is a four-leg intersection that operates with stop-control on the northbound and southbound site access approaches. The northbound and southbound approaches of this intersection are undesignated and provide a single lane, although they are wide enough to stripe separate left turn and right turn lanes. The eastbound and westbound approaches on Dillon Ridge Road provide a left turn lane and a shared through/right turn lane. The intersection lane configurations and control for the existing study area intersections are shown in **Figure 2**.



3.2 Surrounding Development

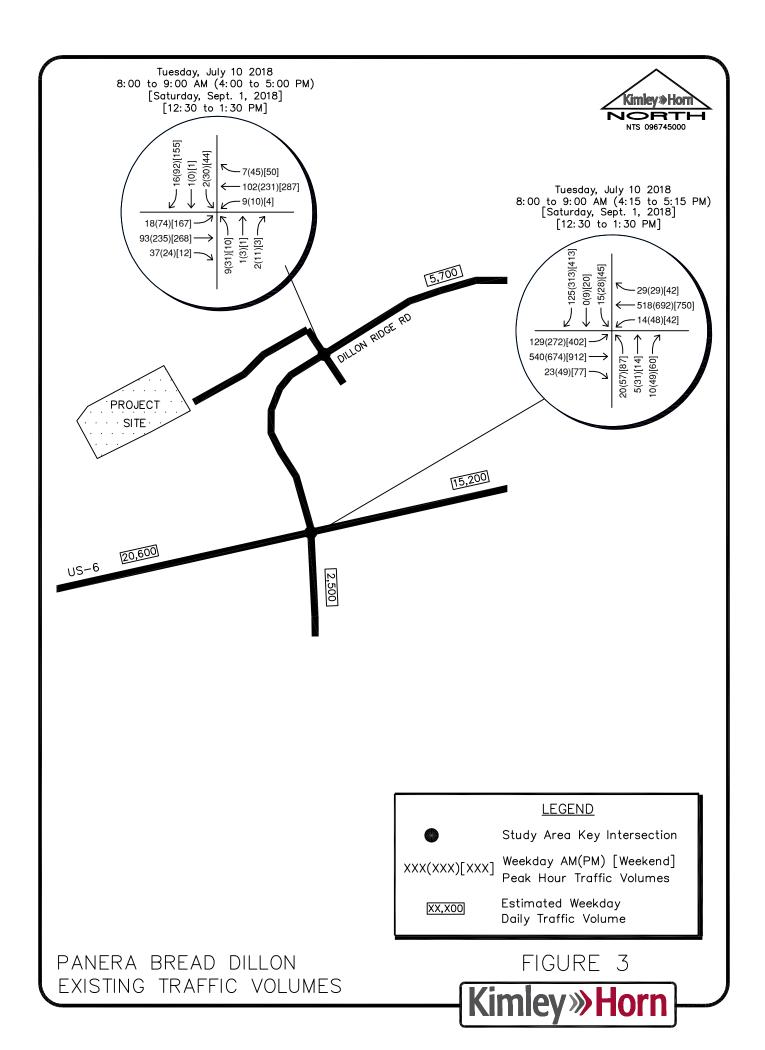
The proposed Panera Bread is to be located within the existing The Ridge at Dillon, located along the north side of Dillon Ridge Road. The existing commercial center includes several fast-casual restaurants, retail shops, and a parking lot. The access for this commercial center is shared with a Walgreens. Alpine Bank is located along the south side of Dillon Ridge Road with its access aligning at this intersection. The surrounding area is essentially fully built out and contains a mix of uses with commercial uses located to the east, west, and south of the proposed site along US-6. I-70 borders the development to the north. On the other side of I-70 more commercial uses exist, as well as hotels. Residential developments are located further to the north and east. Dillon Reservoir exists to the south.

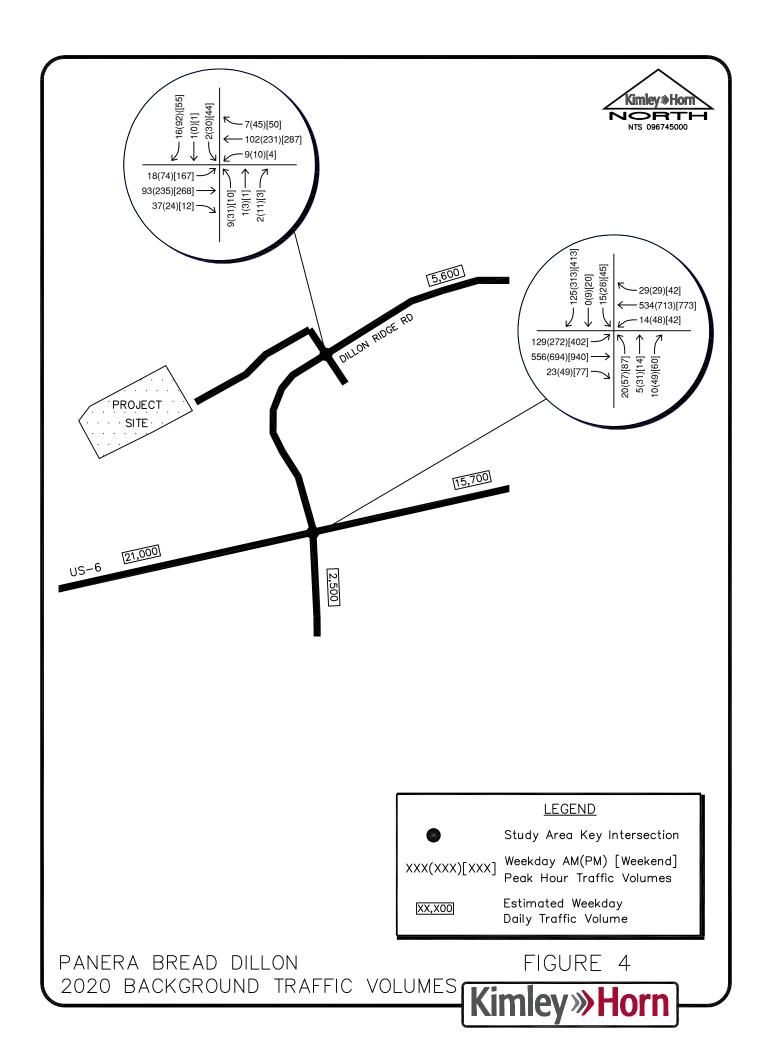
3.3 Existing Traffic Volumes

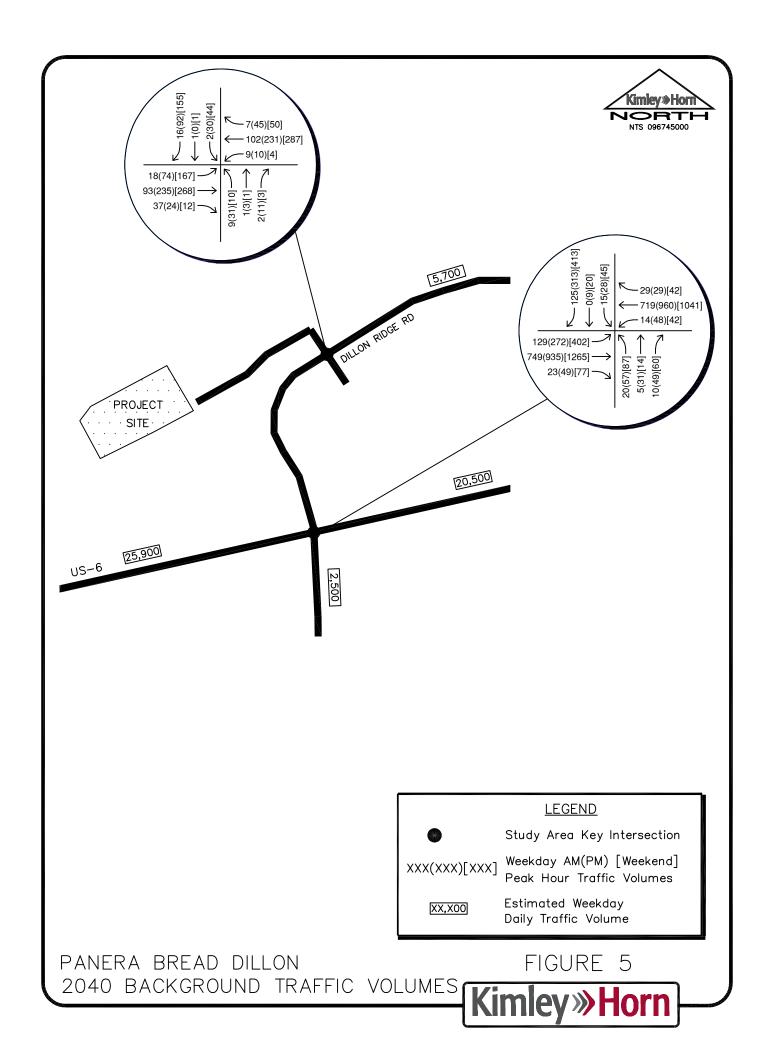
Existing peak hour turning movement counts were conducted at the key intersections on Tuesday, July 10, 2018 during the weekday morning and afternoon peak hours and on Saturday, September 1, 2018 during the weekend midday peak hour. The weekday counts were conducted in 15-minute intervals during the 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. The Saturday counts were conducted in 15-minute interval during the midday peak hour from 11:30 AM to 1:30 PM. The turning movement counts are shown in **Figure 3** with count sheets provided in **Appendix A**.

3.4 Unspecified Development Traffic Growth

According to information provided on the CDOT transportation information website, the 20-year growth factor along US-6 in the vicinity of the project is 1.26. This equates to an annual growth rate of approximately 1.16 percent. US-6 traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**. Due to this, a more conservative annual growth rate of 1.5 percent was used to calculate future through traffic volumes along US-6. Since the area surrounding the proposed development is fully built out, no additional traffic volume growth is expected. The annual growth rate was used to estimate near term 2020 and long term 2040 traffic volume projections at the US-6 key intersection. Background traffic volumes for 2020 and 2040 are shown in **Figures 4** and **Figure 5**, respectively.







4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 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 Report*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rate equations that apply to Fast-Food Restaurant with Drive-Through Window (ITE 934) for traffic associated with the development. **Table 1** provides the estimated trip generation for the proposed Panera Bread Dillon development.

Table 1 – Panera Bread Project Weekday Traffic Generation

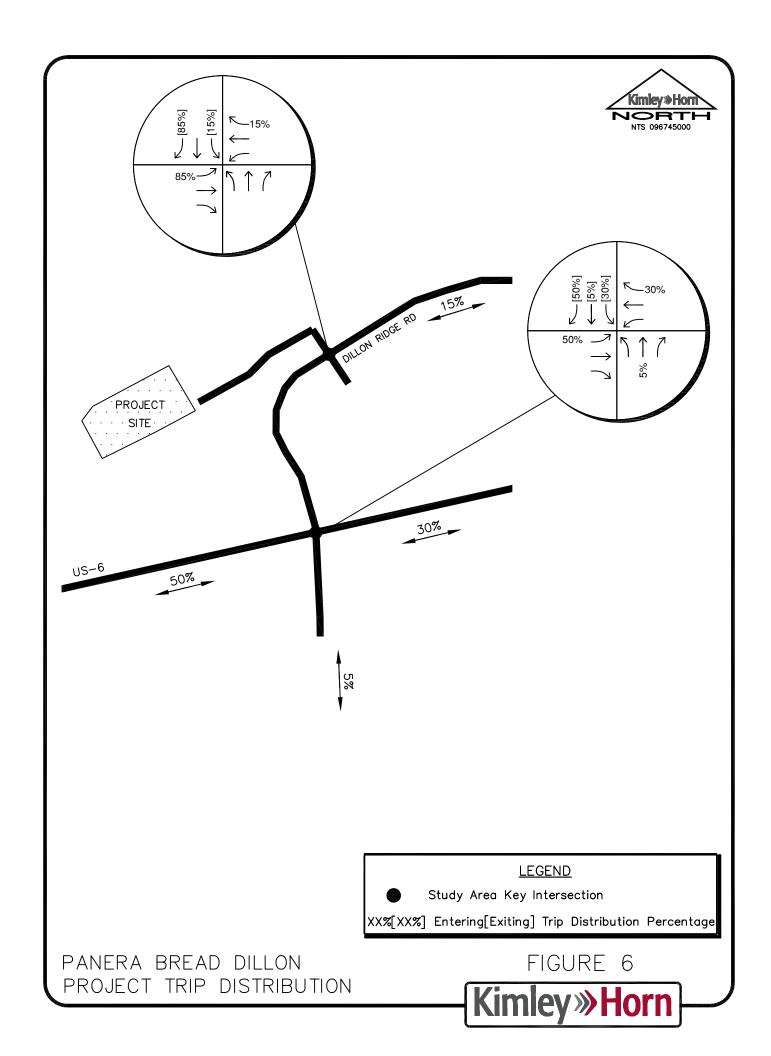
	Vehicle Trips									
								Saturday		
		Weekday			Weekday			Peak Hour of		
		AM Peak Hour			PM Peak Hour			Generator		
Uses	Daily	In	Out	Total	ln	Out	Total	In	Out	Total
Fast Food Restaurant with Drive- Through (ITE 934) – 4,500 Square Feet	2,120	92	89	181	76	71	147	126	121	247

As shown in **Table 1**, the project is expected to generate a total of approximately 2,120 daily weekday trips with 181 of these trips occurring during the morning peak hour and 147 new trips during the afternoon peak hour. The Saturday peak hour of generator includes 247 total trips with 126 trips entering and 121 trips exiting.

4.2 Trip Distribution

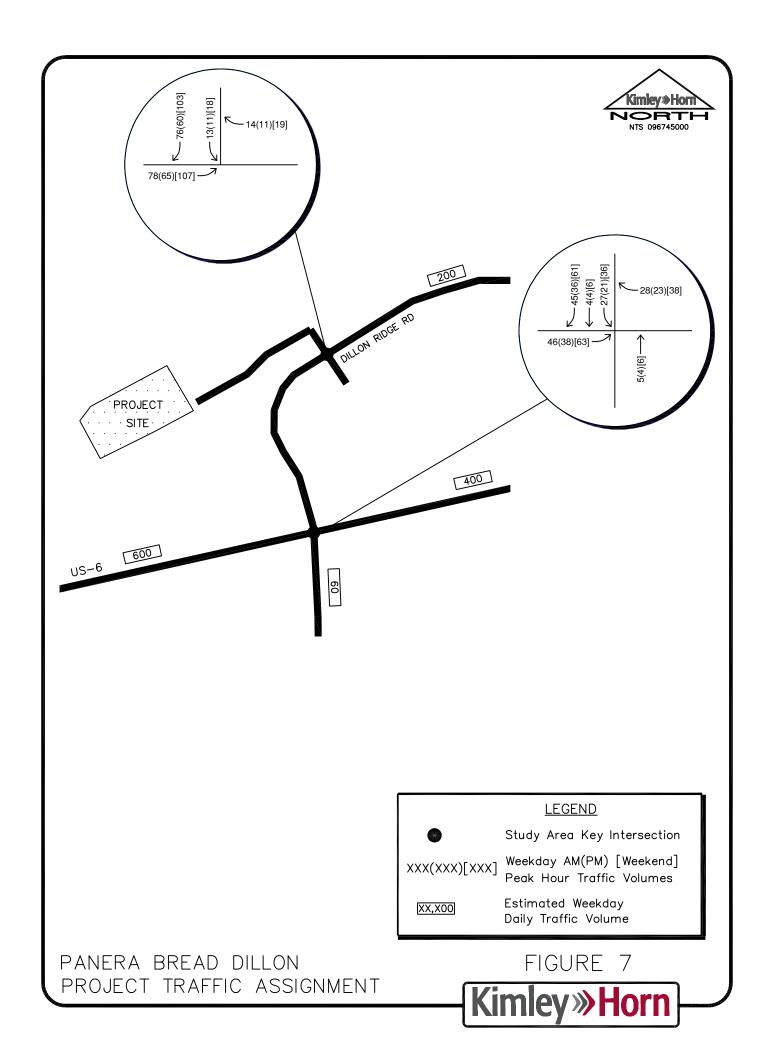
Distribution of site traffic was based on the area street system characteristics, existing traffic patterns and volumes, existing demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. **Figure 6** illustrates the expected trip distribution for the site trips.

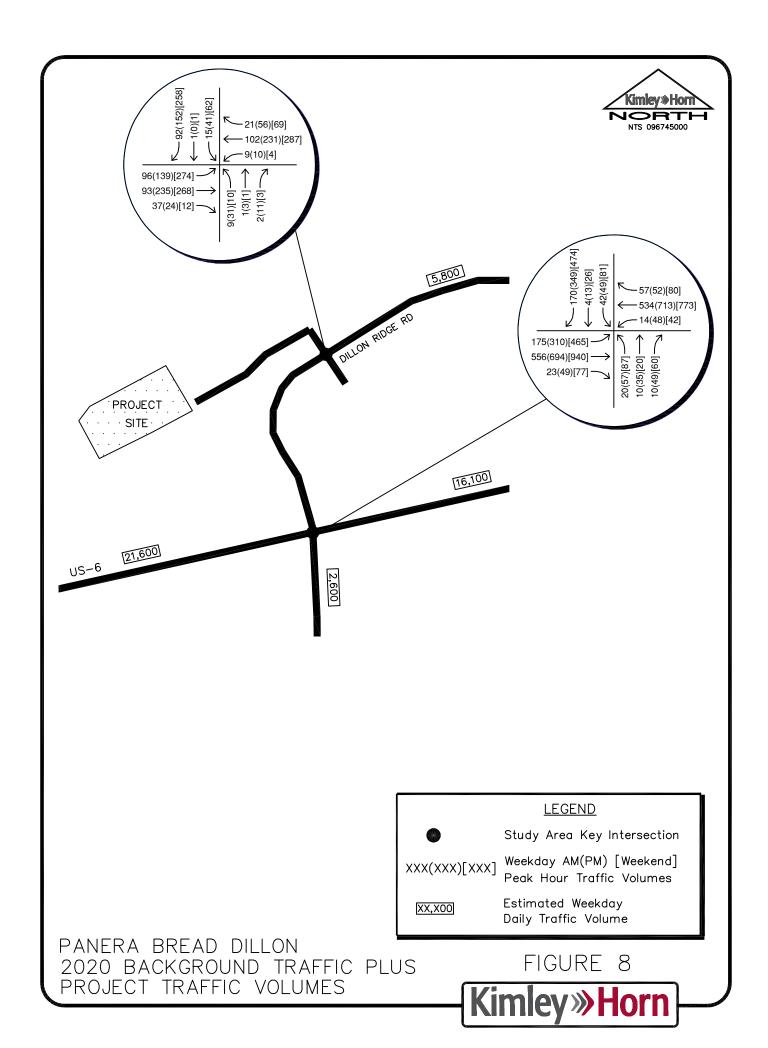
¹ Institute of Transportation Engineers, *Trip Generation: An Information Report*, Tenth Edition, Washington DC, 2017.

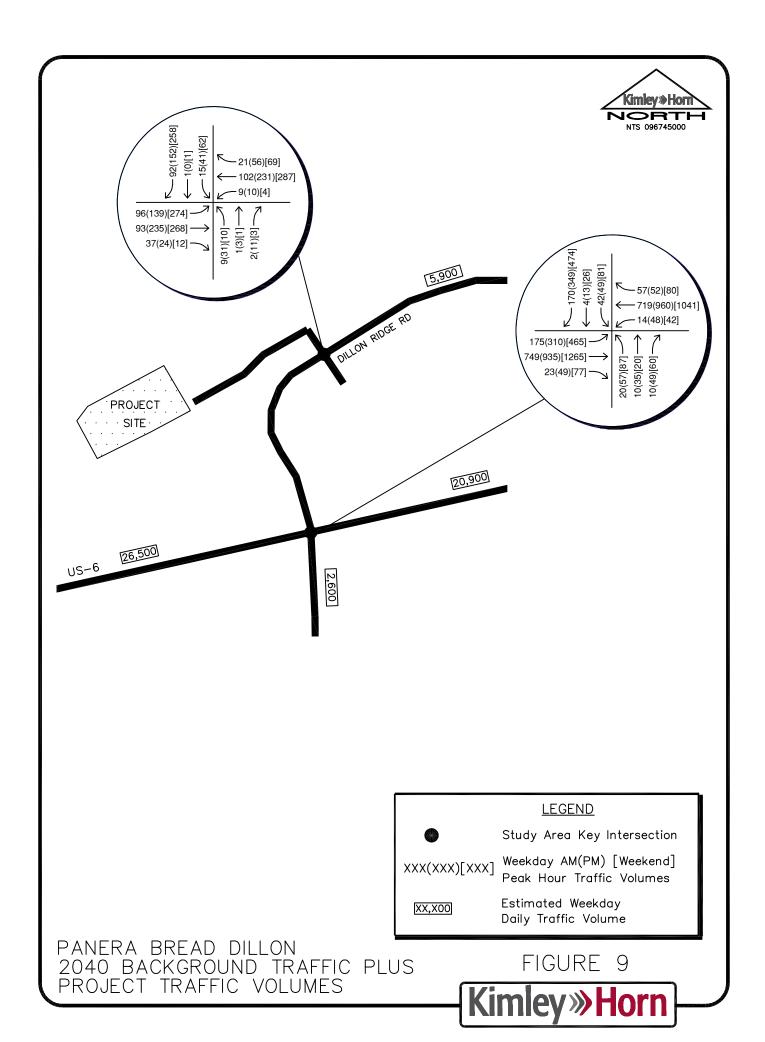


4.3 Traffic Assignment and Total (Background Plus Project) Traffic

Traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Project traffic assignment during the peak hours studied is shown in **Figure 7**. Project traffic volumes were added to the background volumes to represent estimated traffic conditions for the short term 2020 horizon and long term 2040 horizon. These background plus project (total) traffic volumes for the project are illustrated for the 2020 and 2040 horizon years in **Figures 8** and **9**, respectively.







5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2020 and 2040 development horizons at the identified key intersections and access driveways. The acknowledged source for determining overall capacity is the current 6th edition of the *Highway Capacity Manual (HCM)*².

5.1 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, standard traffic engineering practice identifies overall intersection LOS D and movement LOS E as the minimum threshold for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
Α	≤ 10	≤ 10
В	> 10 and ≤ 20	> 10 and ≤ 15
С	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
Е	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the level of service (LOS) for a two-way stop controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service for a two-way stop-controlled intersection is not defined for the intersection as a whole. Level of service for a signalized and four-way stop controlled intersection is defined for each approach and for the intersection.

² Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the level of service at the key intersections identified for this study are provided in **Appendix D**. The existing and background traffic analyses are based on the lane geometry and intersection control shown in **Figure 2**. The signalized intersection analysis utilizes the observed cycle lengths for the peak hours with existing phasing and optimized timing splits. Synchro 10 traffic analysis software was used to analyze the study intersections for level of service. The Synchro Highway Capacity Manual (HCM) methodology reports were used to analyze intersection delay and level of service.

Dillon Ridge Road Full-Movement Access

The existing full movement access intersection along Dillon Ridge Road for The Ridge at Dillon is a four-leg intersection that operates with stop-control on the northbound and southbound commercial access approaches. The northbound and southbound access approaches of this intersection are unmarked and provide a single approach lane. The westbound and eastbound approaches on Dillon Ridge Road provide a left turn lane and a shared through/right turn lane.

With the existing lane configuration and control at the Dillon Ridge Road Access intersection all movements currently operate acceptably with LOS C or better during the weekday peak hours and LOS D or better during the Saturday peak hour. With the addition of project traffic, heavy delays are expected on the northbound and southbound approaches with a LOS F during the Saturday peak hour of generator if the existing configuration and two-way stop control remained. Therefore, it is recommended that the Dillon Ridge Road access intersection be converted to All-Way Stop Control with the addition of R1-1 "STOP" signs on the eastbound and westbound approaches with development of the project. In addition, R1-4 "ALL WAY" plaques should be installed underneath all four "STOP" signs. Since this will be a change in control unfamiliar to drivers traveling along Dillon Ridge Road, it is recommended that two red flags be affixed to the top of the new "STOP" signs at 45-degree angles for the new stop control on the eastbound and westbound approaches. These flags should remain for a period of approximately three to six months. Additional operational improvements include adding striping to the north leg of this access to designate a separate left turn lane. It is believed that the existing driveway is wide enough to designate three lanes with one entering lane and two exiting lanes (a separate left turn and a shared through/right turn lane). This will improve operations of the intersection by processing two vehicles out of the access at the same time under the

recommended all way stop control condition. With these improvements, the intersection is expected to operate acceptably during the weekday peak hours with LOS B and during the Saturday peak hour with LOS D. **Table 3** provides the results of the level of service at this intersection.

Table 3 – Dillon Ridge Road and Full-Movement Access LOS Results

	AM Pea	k Hour	DM Dog	ak Hour	Saturday D	ook Hour
	Delay	K HOUI	Delay	ak noui	Saturday P Delay	eak noui
Scenario	(sec)	LOS	(sec)	LOS	(sec)	LOS
2018 Existing						
Northbound Approach	11.5	В	19.3	С	34.0	D
Eastbound Left	7.5	Α	8.1	Α	8.8	Α
Westbound Left	7.6	Α	7.9	Α	7.9	Α
Southbound Approach	9.9	Α	15.0	С	27.8	D
Background Plus Project						
Northbound Approach	18.1	С	29.1	D	89.1	F
Eastbound Left	7.8	Α	8.3	Α	9.5	Α
Westbound Left	7.6	Α	7.9	Α	7.9	Α
Southbound Approach	13.9	В	21.6	С	161.9	F
Background Plus Project #	10.1	В	13.7	В	25.9	D
Northbound Approach	9.6	Α	11.6	В	12.5	В
Eastbound Approach	10.3	В	13.5	В	19.9	С
Westbound Approach	10.0	Α	15.9	С	41.6	Е
Southbound Approach	9.8	Α	11.9	В	16.8	С

[#] Includes All-Way Stop Control and Southbound Left Turn Lane

Dillon Ridge Road and US-6

The intersection of Dillon Ridge Road and US-6 is currently signalized with protected/permitted left turn phasing on the major westbound and eastbound approaches. The minor northbound and southbound approaches operate with split phasing.

The eastbound and westbound approaches on US-6 provide one left turn lane, two through lanes, and a right turn lane. The southbound approach on Dillon Ridge Road provides a shared through/left turn lane and a right turn lane. The northbound Anemone Trail approach provides a left turn lane, a shared through/left turn lane, and a right turn lane.

Currently, this intersection operates acceptably during the weekday morning and afternoon peak hours and Saturday midday peak hour with LOS B. With the addition of project traffic, this intersection is expected to operate acceptably with level of service C or better in the buildout year of 2020 during the three peak hours studied. By 2040, this intersection is anticipated to continue to operate acceptably with LOS C during the studied peak hours. **Table 4** provides the results of the level of service at this intersection.

Table 4 – Dillon Ridge Road and US-6 LOS Results

	AM Pea	k Hour	PM Pea	ak Hour	Saturday P	eak Hour
Scenario	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
2018 Existing	13.9	В	18.5	В	17.3	В
2020 Background	13.8	В	19.7	В	17.4	В
2020 Background Plus Project	23.2	С	31.0	С	24.1	С
2040 Background	25.0	С	31.9	С	25.2	С
2040 Background Plus Project	26.1	С	32.4	С	29.7	С

5.3 Vehicle Queuing Analysis

Queuing analysis was conducted for the study area intersections. Results were obtained from the 95th percentile queue lengths obtained from the Synchro analysis. Queue analysis worksheets at the US-6 and Dillon Ridge Road signalized intersection is provided in **Appendix E**. Queue length calculations for the unsignalized access intersection is provided within the level of service operational sheets provided in **Appendix D**. Results of the queuing analysis and recommendations at the study area intersections are provided in **Table 5**.

Table 5 - Turn Lane Queuing Analysis Results

Tubio	Existing	2020	raidiyolo raccar	2040	
	Turn Lane	Calculated	2020	Calculated	2040
	Length	Queue	Recommended	Queue	Recommended
Intersection Turn Lane	(feet)	(feet)	Length (feet)	(feet)	Length (feet)
Dillon Ridge Road Access #					
Northbound Approach	25'	25'	25'	25'	25'
Eastbound Left	65'	100'	100'	100'	100'
Eastbound Through	С	100'	С	100'	С
Westbound Left	90'	25'	90'	25'	90'
Westbound Through	С	250'	С	250'	С
Southbound Left	25'	25'	25'	25'	25'
Southbound Through/Right	25'	100'	25'	100'	25'
Dillon Ridge Road and US-6					
Eastbound Left	375'	459'	375'	552'	375'
Eastbound Right	150' C	25'	150' C	26'	150' C
Westbound Left	600'	28'	600'	33'	600'
Westbound Right	450'	36'	450'	37'	450'
Northbound Left	60'	115'	125'	122'	125'
Northbound Right	80'	27'	80'	27'	80'
Southbound Right	120'	89'	120'	90'	120'

[#] All Way Stop Control; C = Continuous Through Lane

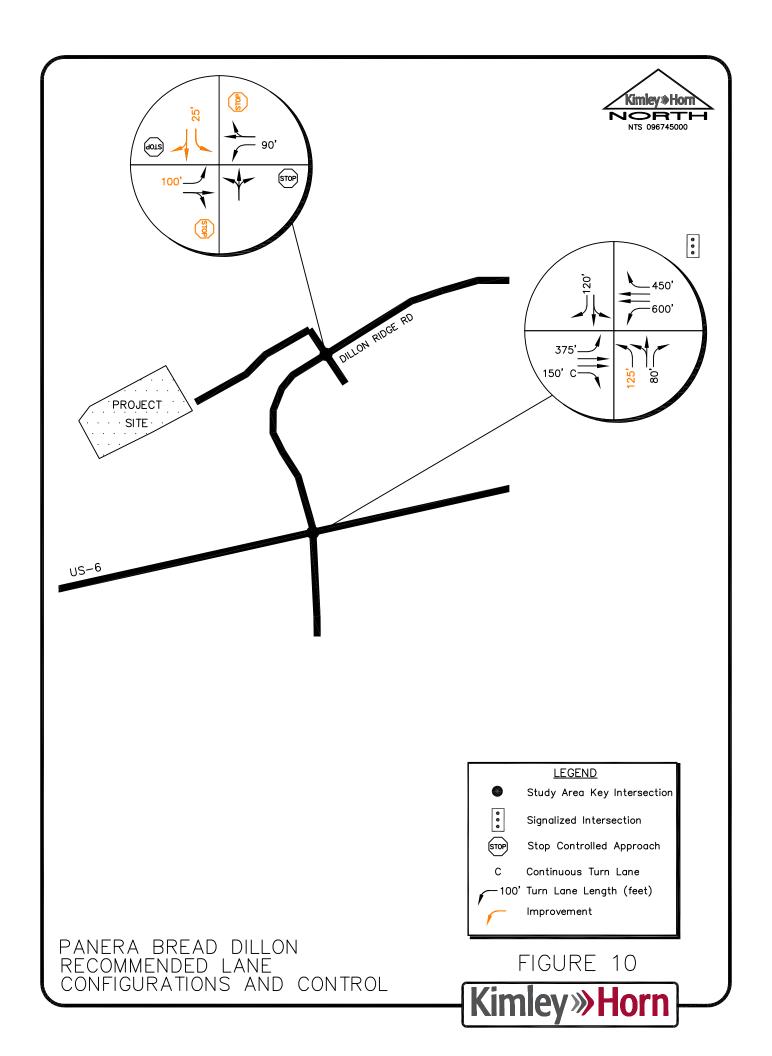
As shown in the table representing the queuing results, all vehicle queues are anticipated to be accommodated or managed within existing turn bay lengths by project buildout in 2020 with exception of the eastbound left turn and southbound through/right turn at the Dillon Ridge Road Access intersection as well as the eastbound left turn and northbound left turn at the Dillon Ridge Road and US-6 intersection.

With development of the project, it is recommended that the 65-foot eastbound left turn lane at the Dillon Ridge Road full movement access intersection be restriped to include 100 feet of storage length. Incorporation of all-way stop control and striping the southbound approach to include separate left turn and shared through/right turn lanes will help alleviate the queue issues for traffic exiting The Ridge at Dillon retail center. However, it is anticipated that the existing 25-foot throat depth may be exceeded during the Saturday midday peak hour. The all-way stop control will allow traffic to continue moving. If traffic exiting from the Walgreens to the east blocks entering traffic into the retail center, operations could be improved by closing off the first drive aisle to the Walgreen's site. This could be considered if found to be needed.

At the Dillon Ridge Road and US-6 intersection, the eastbound left turn lane may experience long queues during the Saturday peak hour of generator. However, this left turn lane is constructed to its maximum length and cannot be further extended due to the geometric constraints from the Anemone Trail and US-6 three-quarter access intersection located approximately 500 feet west of the Dillon Ridge Rd and US-6 intersection (measured center to center). Therefore, it is believed that this left turn lane will need to remain with a length of 375 feet.

Unrelated to this project, a traffic deficiency exists for the northbound left turn at the US-6 and Dillon Ridge Road/Anemone Trail intersection. Acceptable operations result, however the northbound left turn queue may extend through the Little Dam Street intersection to the south during the peak hours. This is likely why there are separate left turn and a shared left turn/through lane on the northbound approach at the US-6 signalized intersection today to address left turn movements in two lanes. If possible, raised pork chop island channelization for the eastbound right turn lane (deceleration and acceleration) could be added so that the stop bar on the south leg could be moved further north. This would allow for the northbound approach to have an extended queue space on this approach due to the absence of a crosswalk on this leg. If channelizing islands were added to the north side of US-6 as well, the pedestrian crossing distance of the west leg would be significantly reduced, which would improve signal operations, as well as an overall improvement with a true free southbound right turn. These improvements could be considered by CDOT and the Town of Dillon if desired as it is understood that this may impact snow removal operations during the winter.

Based on the results of the intersection operational and queuing analysis, the recommended lane configurations and control of the study key intersections are shown in **Figure 10**.



6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the proposed Panera Bread in Dillon, Colorado will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

- It is recommended the intersection of Dillon Ridge Road and the full movement project access be improved to include All-Way Stop Control. R1-1 "STOP" signs should be installed on the eastbound and westbound approaches. In addition, R1-4 "ALL WAY" plaques should be installed underneath all four "STOP" signs. Since this will be a change in control unfamiliar to drivers traveling along Dillon Ridge Road, it is recommended that two red flags be affixed to the top of the new "STOP" signs at 45-degree angles for the new stop control on the eastbound and westbound approaches. These flags should remain for a period of approximately three to six months.
- Additional operational improvements should be considered for the Dillon Ridge Road
 access intersection by adding striping to the north leg of this access to designate a
 separate left turn lane. It is believed that the existing driveway is wide enough to
 designate three lanes with one entering lane and two exiting lanes (a separate left turn
 and a shared through/right turn lane). This will improve operations of the intersection by
 processing two vehicles out of the access at the same time under the recommended all
 way stop control condition.
- With development of the project, it is recommended that the 65-foot eastbound left turn lane at the Dillon Ridge Road full movement access intersection be restriped to include 100 feet of storage length. Incorporation of all-way stop control and striping the southbound approach to include separate left turn and shared through/right turn lanes will help alleviate the queue issues for traffic exiting The Ridge at Dillon retail center. However, it is anticipated that the existing 25-foot throat depth may be exceeded during the Saturday midday peak hour. The all-way stop control will allow traffic to continue moving. If traffic exiting from the Walgreens to the east blocks entering traffic into the

retail center, operations could be improved by closing off the first drive aisle to the Walgreen's site. This could be considered if found to be needed.

- Unrelated to this project, a traffic deficiency exists for the northbound left turn at the US-6 and Dillon Ridge Road/Anemone Trail intersection. Acceptable operations result, however the northbound left turn queue may extend through the Little Dam Street intersection to the south during the peak hours. This is likely why there are separate left turn and a shared left turn/through lane on the northbound approach at the US-6 signalized intersection today to address left turn movements in two lanes. If possible, raised pork chop island channelization for the eastbound right turn lane (deceleration and acceleration) could be added so that the stop bar on the south leg could be moved further north. This would allow for the northbound approach to have an extended queue space on this approach due to the absence of a crosswalk on this leg. If channelizing islands were added to the north side of US-6 as well, the pedestrian crossing distance of the west leg would be significantly reduced, which would improve signal operations, as well as an overall improvement with a true free southbound right turn. These improvements could be considered by CDOT and the Town of Dillon if desired as it is understood that this may impact snow removal operations during the winter.
- By year 2040 the 65-foot eastbound left turn lane at the Dillon Ridge Road and full movement access intersection may need to be restriped to include 100 feet of storage length.
- All on-site and off-site roadway, signing, striping, and signal improvements should be incorporated into the Civil Drawings, and conform to Town of Dillon and Colorado Department of Transportation standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

APPENDICES

APPENDIX A

Intersection Count Sheets



Dillon, CO Panera Bread AM Peak

Dillon Ridge Rd Access

File Name: Dillon Ridge Rd Access AM

Site Code : IPO 358 Start Date : 7/10/2018

Page No : 1

Groups Printed- Automobiles

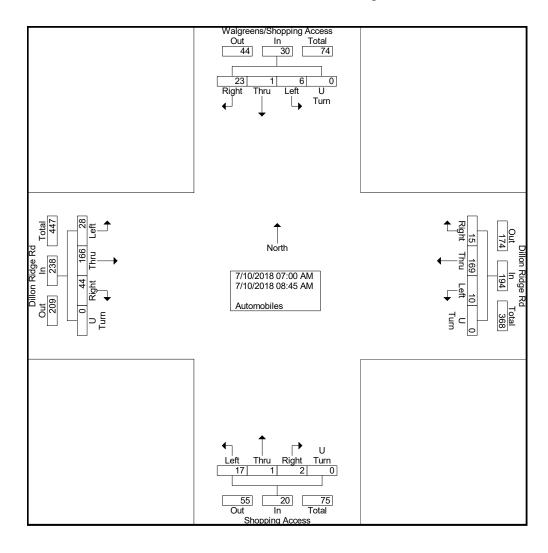
			n Rido					n Ride						ccess	i	Walg				ccess	
			astbou	und				estbo	und				orthbo	und				outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	0	13	2	0	15	0	15	1	0	16	5	0	0	0	5	0	0	2	0	2	38
07:15 AM	4	19	0	0	23	0	9	0	0	9	0	0	0	0	0	2	0	1	0	3	35
07:30 AM	2	16	5	0	23	1	20	1	0	22	2	0	0	0	2	1	0	1	0	2	49
07:45 AM	4	25	0	0	29	0	23	6	0	29	1	0	0	0	1	1	0	3	0	4	63
Total	10	73	7	0	90	1	67	8	0	76	8	0	0	0	8	4	0	7	0	11	185
					,																
08:00 AM	3	20	4	0	27	2	27	1	0	30	1	0	0	0	1	2	0	0	0	2	60
08:15 AM	4	26	7	0	37	2	25	0	0	27	3	1	0	0	4	0	0	4	0	4	72
08:30 AM	4	20	6	0	30	0	26	4	0	30	1	0	1	0	2	0	1	4	0	5	67
08:45 AM	7	27	20	0	54	5	24	2	0	31	4	0	1	0	5	0	0	8	0	8	98
Total	18	93	37	0	148	9	102	7	0	118	9	1	2	0	12	2	1	16	0	19	297
Grand Total	28	166	44	0	238	10	169	15	0	194	17	1	2	0	20	6	1	23	0	30	482
Apprch %	11.8	69.7	18.5	0		5.2	87.1	7.7	0		85	5	10	0		20	3.3	76.7	0		
Total %	5.8	34.4	9.1	0	49.4	2.1	35.1	3.1	0	40.2	3.5	0.2	0.4	0	4.1	1.2	0.2	4.8	0	6.2	



Dillon, CO File Name: Dillon Ridge Rd Access AM

Panera Bread Site Code : IPO 358
AM Peak Start Date : 7/10/2018

Dillon Ridge Rd Access Page No : 2



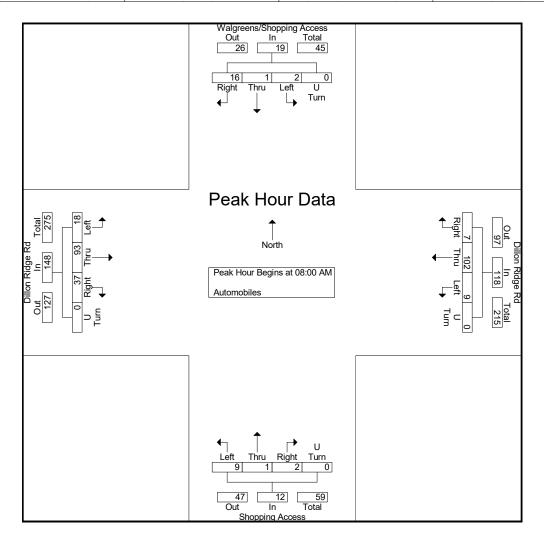


Dillon, CO File Name: Dillon Ridge Rd Access AM Site Code: IPO 358

Panera Bread Site Code : IPO 358
AM Peak Start Date : 7/10/2018

Dillon Ridge Rd Access Page No : 3

		Dillo	n Rido	ge Rd			Dillo	n Rido	ge Rd			Shop	ping A	ccess		Walg	reens	/Shop	ping A	ccess	
		E	astbou	ınd			W	'estbo	und			No	orthbo	und			Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	า 07:0	0 AM t	o 08:45	AM -	Peak '	1 of 1					•								
Peak Hour fo	or Enti	re Inte	rsectio	n Beg	ins at 0	8:00 A	M														
MA 00:80	3	20	4	0	27	2	27	1	0	30	1	0	0	0	1	2	0	0	0	2	60
08:15 AM	4	26	7	0	37	2	25	0	0	27	3	1	0	0	4	0	0	4	0	4	72
08:30 AM	4	20	6	0	30	0	26	4	0	30	1	0	1	0	2	0	1	4	0	5	67
08:45 AM	7	27	20	0	54	5	24	2	0	31	4	0	1	0	5	0	0	8	0	8	98
Total Volume	18	93	37	0	148	9	102	7	0	118	9	1	2	0	12	2	1	16	0	19	297
% App. Total	12.2	62.8	25	0		7.6	86.4	5.9	0		75	8.3	16.7	0		10.5	5.3	84.2	0		
PHF	.643	.861	.463	.000	.685	.450	.944	.438	.000	.952	.563	.250	.500	.000	.600	.250	.250	.500	.000	.594	.758





PM Peak Start Date : 7/10/2018 Dillon Ridge Rd Access Page No : 1

Groups Printed- Automobiles

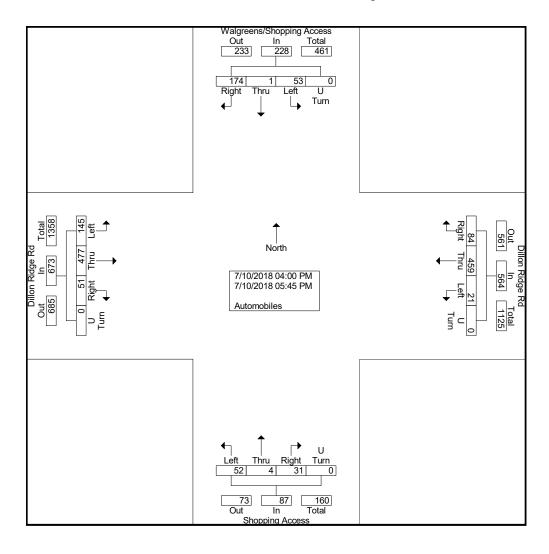
		Dillo	n Ridg	ge Rd			Dillo	n Ridg		i iiiitou-	7 tator		ping A	ccess	i	Walg	reens	/Shop	ping A	ccess	
		E	astbοι	ınd			W	estbo	und			No	orthbo	und			Sc	uthbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	20	59	4	0	83	3	45	13	0	61	9	0	1	0	10	11	0	21	0	32	186
04:15 PM	15	62	5	0	82	4	61	10	0	75	8	3	1	0	12	9	0	18	0	27	196
04:30 PM	19	57	6	0	82	1	60	12	0	73	7	0	6	0	13	7	0	22	0	29	197
04:45 PM	20	57	9	0	86	2	65	10	0	77	7	0	3	0	10	3	0	31	0	34	207
Total	74	235	24	0	333	10	231	45	0	286	31	3	11	0	45	30	0	92	0	122	786
05:00 PM	14	60	4	0	78	4	48	11	0	63	6	0	12	0	18	9	0	16	0	25	184
05:15 PM	22	48	12	0	82	5	58	8	0	71	2	1	1	0	4	2	0	25	0	27	184
05:30 PM	19	62	8	0	89	1	47	7	0	55	9	0	5	0	14	8	1	21	0	30	188
05:45 PM	16	72	3	0	91	1	75	13	0	89	4	0	2	0	6	4	0	20	0	24	210
Total	71	242	27	0	340	11	228	39	0	278	21	1	20	0	42	23	1	82	0	106	766
Grand Total	145	477	51	0	673	21	459	84	0	564	52	4	31	0	87	53	1	174	0	228	1552
Apprch %	21.5	70.9	7.6	0		3.7	81.4	14.9	0		59.8	4.6	35.6	0		23.2	0.4	76.3	0		
Total %	9.3	30.7	3.3	0	43.4	1.4	29.6	5.4	0	36.3	3.4	0.3	2	0	5.6	3.4	0.1	11.2	0	14.7	



Dillon, CO File Name: Dillon Ridge Rd Access PM

Panera Bread Site Code : IPO 358
PM Peak Start Date : 7/10/2018

Dillon Ridge Rd Access Page No : 2



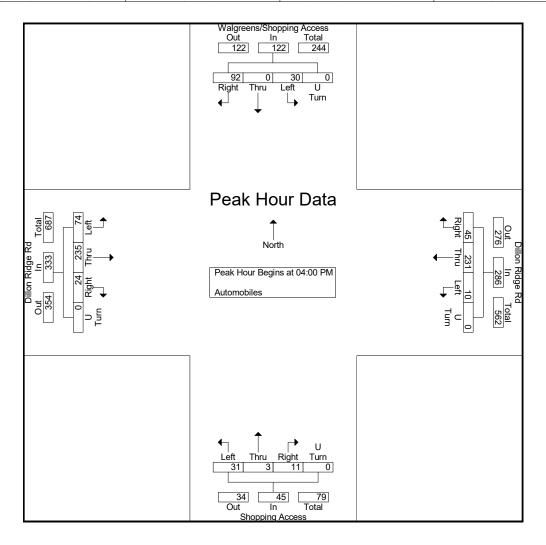


Dillon, CO File Name: Dillon Ridge Rd Access PM

Panera Bread Site Code : IPO 358
PM Peak Start Date : 7/10/2018

Dillon Ridge Rd Access Page No : 3

		Dillo	n Rido	ge Rd			Dillo	n Rido	ge Rd			Shop	ping A	ccess		Walg	reens	/Shop	ping A	ccess	
		E	astbou	ınd			W	estbo	und			No	orthbo	und			Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	า 04:00	0 PM t	o 05:45	PM -	Peak ²	1 of 1													
Peak Hour fo	or Enti	re Inte	rsectio	n Beg	jins at 0	4:00 P	M														
04:00 PM	20	59	4	0	83	3	45	13	0	61	9	0	1	0	10	11	0	21	0	32	186
04:15 PM	15	62	5	0	82	4	61	10	0	75	8	3	1	0	12	9	0	18	0	27	196
04:30 PM	19	57	6	0	82	1	60	12	0	73	7	0	6	0	13	7	0	22	0	29	197
04:45 PM	20	57	9	0	86	2	65	10	0	77	7	0	3	0	10	3	0	31	0	34	207
Total Volume	74	235	24	0	333	10	231	45	0	286	31	3	11	0	45	30	0	92	0	122	786
% App. Total	22.2	70.6	7.2	0		3.5	80.8	15.7	0		68.9	6.7	24.4	0		24.6	0	75.4	0		
PHF	.925	.948	.667	.000	.968	.625	.888	.865	.000	.929	.861	.250	.458	.000	.865	.682	.000	.742	.000	.897	.949





Dillon, CO Panera Bread Weekend Noon Peak Dillon Ridge Rd Access File Name: Dillon Ridge Rd Access Noon

Site Code : IPO 367 Start Date : 9/1/2018

Page No : 1

Groups Printed- Automobiles

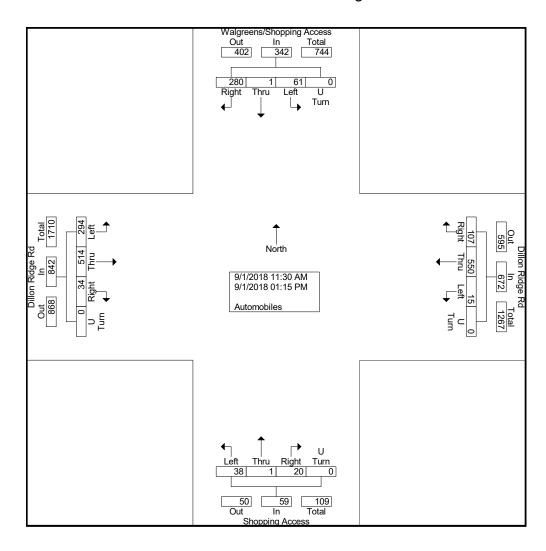
										Tilliteu-	Autoi										
		Dillo	n Ridg	e Rd			Dillo	n Ridg	ge Rd			Shop	ping A	∖ccess		Walg	reens	/Shop	ping A	ccess	
			astbou					estbo				N	orthbo	und				outhbo			
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
11:30 AM	25	65	9	0	99	4	65	12	0	81	8	0	3	0	11	3	0	26	0	29	220
11:45 AM	29	62	7	0	98	3	64	14	0	81	8	0	7	0	15	4	0	33	0	37	231
Total	54	127	16	0	197	7	129	26	0	162	16	0	10	0	26	7	0	59	0	66	451
	1				ļ						1					I					ı
12:00 PM	28	62	3	0	93	4	72	16	0	92	8	0	1	0	9	7	0	27	0	34	228
12:15 PM	45	57	3	0	105	0	62	15	0	77	4	0	6	0	10	3	0	39	0	42	234
12:30 PM	45	63	3	0	111	1	62	10	0	73	4	0	2	0	6	13	0	30	0	43	233
12:45 PM	35	65	5	0	105	1	67	11	0	79	4	1	0	0	5	13	0	43	0	56	245
Total	153	247	14	0	414	6	263	52	0	321	20	1	9	0	30	36	0	139	0	175	940
	1										1					I					ı
01:00 PM	42	65	2	0	109	0	70	20	0	90	1	0	1	0	2	10	1	40	0	51	252
01:15 PM	45	75	2	0	122	2	88	9	0	99	1	0	0	0	1	8	0	42	0	50	272
Grand Total	294	514	34	0	842	15	550	107	0	672	38	1	20	0	59	61	1	280	0	342	1915
Apprch %	34.9	61	4	0		2.2	81.8	15.9	0		64.4	1.7	33.9	0		17.8	0.3	81.9	0		
Total %	15.4	26.8	1.8	0	44	8.0	28.7	5.6	0	35.1	2	0.1	1	0	3.1	3.2	0.1	14.6	0	17.9	



Dillon, CO File Name: Dillon Ridge Rd Access Noon

Panera Bread Site Code : IPO 367 Weekend Noon Peak Start Date : 9/1/2018

Dillon Ridge Rd Access Page No : 2



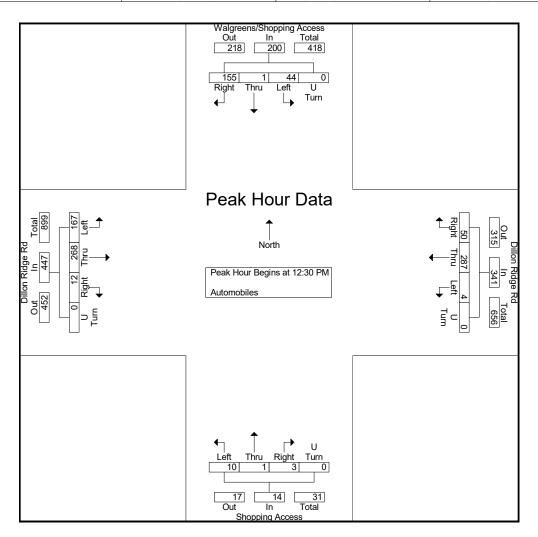


Dillon, CO Panera Bread Weekend Noon Peak Dillon Ridge Rd Access File Name: Dillon Ridge Rd Access Noon

Site Code: IPO 367 Start Date: 9/1/2018

Page No : 3

		Dillo	n Rido	ge Rd			Dillo	n Rid	ge Rd			Shop	ping A	Access		Walg	greens	/Shop	ping A	ccess	
		E	astbou	ınd			W	estbo	und			N	orthbo	und			So	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	n 11:30	0 AM t	o 01:15	PM -	Peak 1	l of 1					•								
Peak Hour fe	or Enti	re Inte	rsectio	n Beg	ins at 1	2:30 F	PM														
12:30 PM	45	63	3	0	111	1	62	10	0	73	4	0	2	0	6	13	0	30	0	43	233
12:45 PM	35	65	5	0	105	1	67	11	0	79	4	1	0	0	5	13	0	43	0	56	245
01:00 PM	42	65	2	0	109	0	70	20	0	90	1	0	1	0	2	10	1	40	0	51	252
01:15 PM	45	75	2	0	122	2	88	9	0	99	1	0	0	0	1	8	0	42	0	50	272
Total Volume	167	268	12	0	447	4	287	50	0	341	10	1	3	0	14	44	1	155	0	200	1002
% App. Total	37.4	60	2.7	0		1.2	84.2	14.7	0		71.4	7.1	21.4	0		22	0.5	77.5	0		
PHF	.928	.893	.600	.000	.916	.500	.815	.625	.000	.861	.625	.250	.375	.000	.583	.846	.250	.901	.000	.893	.921





Dillon, CO Panera Bread AM Peak Highway 6 and Dillon Ridge Rd File Name: Hwy 6 and Dillon Ridge Rd AM

Site Code : IPO 358 Start Date : 7/10/2018

Page No : 1

Groups Printed- Automobiles

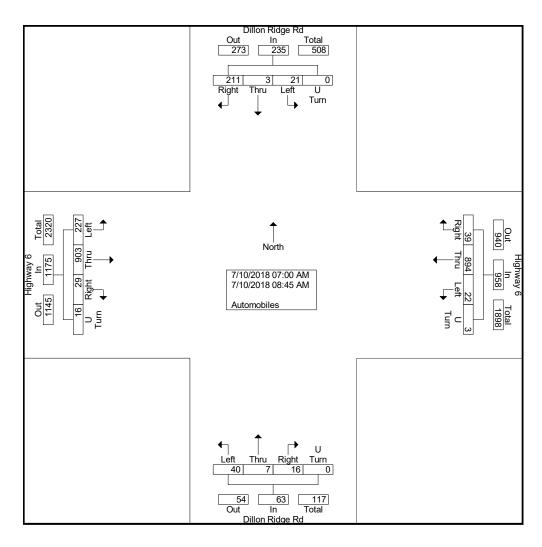
			ighwa					ighwa						ge Rd				n Rido	,		
		E	astbοι	und			W	estbo	und			N	orthbo	und			Sc	uthbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	16	81	1	3	101	0	63	3	0	66	4	0	0	0	4	3	0	18	0	21	192
07:15 AM	27	68	2	2	99	1	77	2	0	80	3	2	0	0	5	0	1	14	0	15	199
07:30 AM	24	112	1	2	139	2	119	3	1	125	8	0	3	0	11	2	1	24	0	27	302
07:45 AM	31	102	2	2	137	5	117	2	1	125	5	0	3	0	8	1	1	30	0	32	302
Total	98	363	6	9	476	8	376	10	2	396	20	2	6	0	28	6	3	86	0	95	995
					,										,						'
08:00 AM	23	149	2	0	174	3	137	4	0	144	5	1	2	0	8	2	0	33	0	35	361
08:15 AM	32	132	5	2	171	2	114	8	0	124	5	1	3	0	9	2	0	26	0	28	332
08:30 AM	26	133	5	3	167	5	138	6	0	149	2	0	2	0	4	5	0	29	0	34	354
08:45 AM	48	126	11	2	187	4	129	11	1	145	8	3	3	0	14	6	0	37	0	43	389
Total	129	540	23	7	699	14	518	29	1	562	20	5	10	0	35	15	0	125	0	140	1436
					'	, i					•				,						
Grand Total	227	903	29	16	1175	22	894	39	3	958	40	7	16	0	63	21	3	211	0	235	2431
Apprch %	19.3	76.9	2.5	1.4		2.3	93.3	4.1	0.3		63.5	11.1	25.4	0		8.9	1.3	89.8	0		
Total %	9.3	37.1	1.2	0.7	48.3	0.9	36.8	1.6	0.1	39.4	1.6	0.3	0.7	0	2.6	0.9	0.1	8.7	0	9.7	



Dillon, CO File Name: Hwy 6 and Dillon Ridge Rd AM

Panera Bread Site Code : IPO 358
AM Peak Start Date : 7/10/2018

Highway 6 and Dillon Ridge Rd Page No : 2





Dillon, CO Panera Bread AM Peak

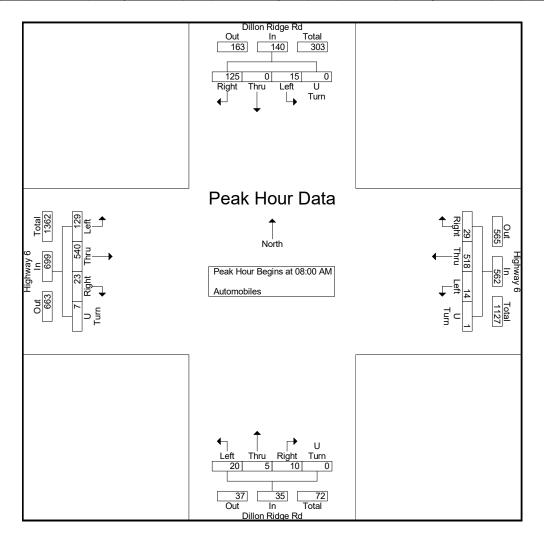
Highway 6 and Dillon Ridge Rd

File Name : Hwy 6 and Dillon Ridge Rd AM $\,$

Site Code : IPO 358 Start Date : 7/10/2018

Page No : 3

			ighwa	•				ighwa	,				n Rid	-				n Rid	•		
		E	astbou	ınd			W	estbo	und			N	orthbo	und			Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	า 07:0	0 AM t	o 08:45	AM -	Peak ²	l of 1													
Peak Hour fo	or Enti	re Inte	rsectio	on Beg	ins at 0	8:00 A	M														
08:00 AM	23	149	2	0	174	3	137	4	0	144	5	1	2	0	8	2	0	33	0	35	361
08:15 AM	32	132	5	2	171	2	114	8	0	124	5	1	3	0	9	2	0	26	0	28	332
08:30 AM	26	133	5	3	167	5	138	6	0	149	2	0	2	0	4	5	0	29	0	34	354
08:45 AM	48	126	11	2	187	4	129	11	1	145	8	3	3	0	14	6	0	37	0	43	389
Total Volume	129	540	23	7	699	14	518	29	1	562	20	5	10	0	35	15	0	125	0	140	1436
% App. Total	18.5	77.3	3.3	1		2.5	92.2	5.2	0.2		57.1	14.3	28.6	0		10.7	0	89.3	0		
PHF	.672	.906	.523	.583	.934	.700	.938	.659	.250	.943	.625	.417	.833	.000	.625	.625	.000	.845	.000	.814	.923





Dillon, CO Panera Bread PM Peak Highway 6 and Dillon Ridge Rd File Name : Hwy 6 and Dillon Ridge Rd PM Site Code : IPO 358

Start Date : 7/10/2018

Page No : 1

Groups Printed- Automobiles

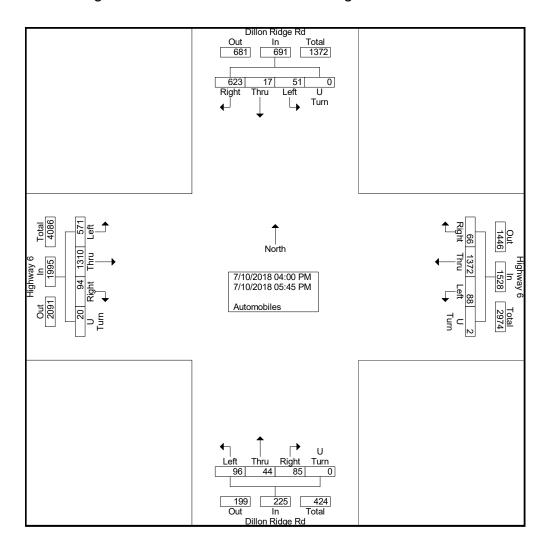
	Groups Frinted-Automobiles																				
		Highway 6					Н	ighwa	y 6			Dillo	n Rid	ge Rd			Dillo	n Rid	ge Rd		
		E	astbou	ind			W	estbo	und				orthbo				Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	74	165	11	4	254	10	139	8	1	158	11	4	9	0	24	8	3	67	0	78	514
04:15 PM	65	160	16	0	241	12	176	5	0	193	16	9	9	0	34	9	3	74	0	86	554
04:30 PM	68	170	15	3	256	14	168	10	1	193	11	9	16	0	36	3	3	82	0	88	573
04:45 PM	73	180	11	3	267	17	167	8	0	192	16	8	7	0	31	14	0	82	0	96	586
Total	280	675	53	10	1018	53	650	31	2	736	54	30	41	0	125	34	9	305	0	348	2227
05:00 PM	66	164	7	3	240	5	181	6	0	192	14	5	17	0	36	2	3	75	0	80	548
05:15 PM	68	176	9	2	255	7	160	12	0	179	10	3	12	0	25	2	3	78	0	83	542
05:30 PM	79	175	13	2	269	12	179	9	0	200	11	3	8	0	22	6	0	72	0	78	569
05:45 PM	78	120	12	3	213	11	202	8	0	221	7	3	7	0	17	7	2	93	0	102	553
Total	291	635	41	10	977	35	722	35	0	792	42	14	44	0	100	17	8	318	0	343	2212
Grand Total	571	1310	94	20	1995	88	1372	66	2	1528	96	44	85	0	225	51	17	623	0	691	4439
Apprch %	28.6	65.7	4.7	1		5.8	89.8	4.3	0.1		42.7	19.6	37.8	0		7.4	2.5	90.2	0		
Total %	12.9	29.5	2.1	0.5	44.9	2	30.9	1.5	0	34.4	2.2	1	1.9	0	5.1	1.1	0.4	14	0	15.6	



Dillon, CO File Name: Hwy 6 and Dillon Ridge Rd PM

Panera Bread Site Code : IPO 358
PM Peak Start Date : 7/10/2018

Highway 6 and Dillon Ridge Rd Page No : 2





Dillon, CO Panera Bread PM Peak

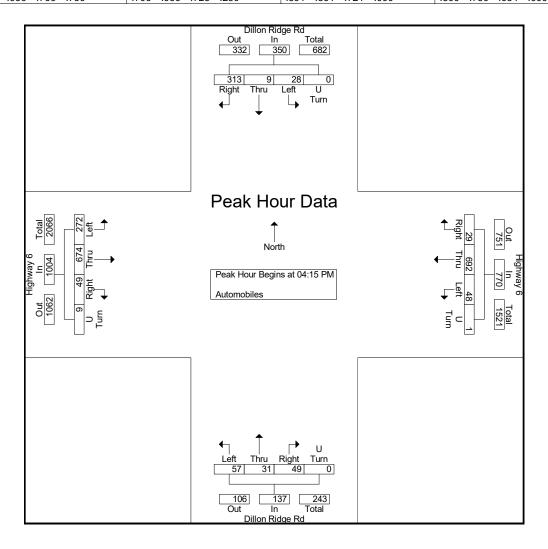
Highway 6 and Dillon Ridge Rd

File Name: Hwy 6 and Dillon Ridge Rd PM

Site Code : IPO 358 Start Date : 7/10/2018

Page No : 3

		Н	ighwa	y 6			Н	ighwa	y 6			Dillo	n Rid	ge Rd			Dillo	n Rid	ge Rd		
		E	astbou	ınd			W	estbo	und			N	orthbo	und			Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	า 04:0	0 PM t	o 05:45	PM -	Peak '	l of 1			•						•				
Peak Hour fo	or Enti	re Inte	rsectio	n Beg	ins at 0	4:15 P	M														
04:15 PM	65	160	16	0	241	12	176	5	0	193	16	9	9	0	34	9	3	74	0	86	554
04:30 PM	68	170	15	3	256	14	168	10	1	193	11	9	16	0	36	3	3	82	0	88	573
04:45 PM	73	180	11	3	267	17	167	8	0	192	16	8	7	0	31	14	0	82	0	96	586
05:00 PM	66	164	7	3	240	5	181	6	0	192	14	5	17	0	36	2	3	75	0	80	548
Total Volume	272	674	49	9	1004	48	692	29	1	770	57	31	49	0	137	28	9	313	0	350	2261
% App. Total	27.1	67.1	4.9	0.9		6.2	89.9	3.8	0.1		41.6	22.6	35.8	0		8	2.6	89.4	0		
PHF	.932	.936	.766	.750	.940	.706	.956	.725	.250	.997	.891	.861	.721	.000	.951	.500	.750	.954	.000	.911	.965





Dillon, CO Panera Bread Weekend Noon Peak Highway 6 and Dillon Ridge Rd File Name: Hwy 6 and Dillon Ridge Rd Noon

Site Code : IPO 367 Start Date : 9/1/2018

Page No : 1

Groups Printed- Automobiles

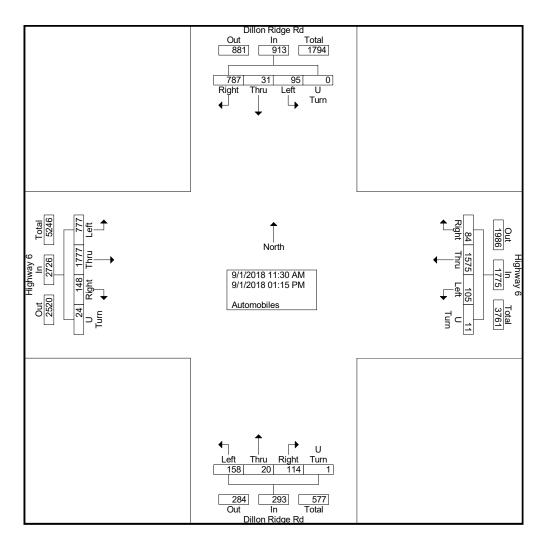
	Highway 6 Highway 6 Dillon Ridge Rd Dillon Ridge Rd																				
		Н	ighwa	y 6			Н	lighwa	y 6			Dillo	on Rido	ge Rd			Dillo	n Rido	ge Rd		1
		E	astbοι	ınd			W	'estbo	und			N	orthbo	und			Sc	outhbo	und		1
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
11:30 AM	94	200	23	1	318	15	219	13	1	248	13	2	9	1	25	10	1	92	0	103	694
11:45 AM	92	205	13	2	312	17	207	8	3	235	20	1	16	0	37	14	8	94	0	116	700
Total	186	405	36	3	630	32	426	21	4	483	33	3	25	1	62	24	9	186	0	219	1394
	1					ı					ı					l					1
12:00 PM	88	204	16	1	309	15	197	12	1	225	18	1	13	0	32	12	1	86	0	99	665
12:15 PM	101	256	19	2	378	16	202	9	0	227	20	2	16	0	38	14	1	102	0	117	760
12:30 PM	97	229	16	7	349	8	212	10	0	230	29	4	8	0	41	9	5	93	0	107	727
12:45 PM	94	206	17	4	321	14	163	9	0	186	19	4	21	0	44	15	7	98	0	120	671
Total	380	895	68	14	1357	53	774	40	1	868	86	11	58	0	155	50	14	379	0	443	2823
	I					ı					I					l					1
01:00 PM	101	223	19	4	347	8	205	10	4	227	18	3	12	0	33	13	1	96	0	110	717
01:15 PM	110	254	25	3	392	12	170	13	2	197	21	3	19	0	43	8	7	126	0	141	773
Grand Total	777	1777	148	24	2726	105	1575	84	11	1775	158	20	114	1	293	95	31	787	0	913	5707
Apprch %	28.5	65.2	5.4	0.9		5.9	88.7	4.7	0.6		53.9	6.8	38.9	0.3		10.4	3.4	86.2	0		1
Total %	13.6	31.1	2.6	0.4	47.8	1.8	27.6	1.5	0.2	31.1	2.8	0.4	2	0	5.1	1.7	0.5	13.8	0	16	



Dillon, CO File Name: Hwy 6 and Dillon Ridge Rd Noon

Panera Bread Site Code : IPO 367 Weekend Noon Peak Start Date : 9/1/2018

Highway 6 and Dillon Ridge Rd Page No : 2



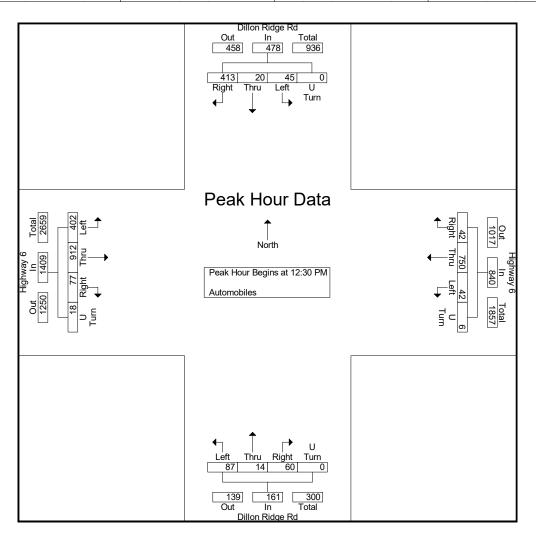


Dillon, CO Panera Bread Weekend Noon Peak Highway 6 and Dillon Ridge Rd File Name: Hwy 6 and Dillon Ridge Rd Noon

Site Code : IPO 367 Start Date : 9/1/2018

Page No : 3

		Н	ighwa	y 6			Н	ighwa	y 6			Dillo	n Rid	ge Rd			Dillo	n Rid	ge Rd		
		E	astbou	ınd			W	estbo	und			N	orthbo	und			Sc	outhbo	und		
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour A	nalysi	s Fron	11:30	O AM t	o 01:15	PM -	Peak 1	of 1			•										
Peak Hour fo	or Enti	re Inte	rsectio	n Beg	ins at 1	2:30 P	M														
12:30 PM	97	229	16	7	349	8	212	10	0	230	29	4	8	0	41	9	5	93	0	107	727
12:45 PM	94	206	17	4	321	14	163	9	0	186	19	4	21	0	44	15	7	98	0	120	671
01:00 PM	101	223	19	4	347	8	205	10	4	227	18	3	12	0	33	13	1	96	0	110	717
01:15 PM	110	254	25	3	392	12	170	13	2	197	21	3	19	0	43	8	7	126	0	141	773
Total Volume	402	912	77	18	1409	42	750	42	6	840	87	14	60	0	161	45	20	413	0	478	2888
% App. Total	28.5	64.7	5.5	1.3		5	89.3	5	0.7		54	8.7	37.3	0		9.4	4.2	86.4	0		
PHF	.914	.898	.770	.643	.899	.750	.884	.808	.375	.913	.750	.875	.714	.000	.915	.750	.714	.819	.000	.848	.934



APPENDIX B

CDOT Annual Traffic Data

Panera Bread Dillon Traffic Projections:

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTYR	YR20FACTOR	DHV	LOCATION
006F	208.659	208.95	0.263	26000	2016	1.26	10.5	ON SH 6 SE/O I-70 SILVERTHORNE
006F	208.95	209.844	0.923	18000	2016	1.19	12.5	ON SH 6 W/O DILLON DAM RD CR 7 DILLON
006F	209.844	210.662	0.838	13000	2016	1.24	14	ON SH 6 E/O EVERGREEN RD LAKE DILLON DR DILLON

APPENDIX C

Trip Generation Worksheets



Project	Panera Bread Dillo	า				
Subject	Trip Generation for	Fast-Food Resta	urant with Drive-Through	Window		
Designed by	ACK	Date	August 29, 2018	Job No.	096745000	
Checked by		Date	-	Sheet No.	1 of	1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Fast Food Restaurant With Drive-Through Window (934)

Independant Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = 4,500 Square Feet

X = 4.500

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series page 158)

Average Weekday	Directi	Directional Distribution: 51% ent. 49								
T = 40.19 (X)		T =	181	Average Vehic	cle Trip E	nds				
T = 40.19 *	4.500	92	entering	89	exiting					

92 + 89 = 181

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series page 159)

Average Weekday		Directio	nal Distribution	: 52%	ent. 48%	exit.
T = 32.67 (X)		T =	147 Ave	erage Vehicle	Trip Ends	
T = 32.67 *	4.500	76	entering	71 exit	ting	
		76	+ 71	= 147		

Weekday (900 Series page 157)

Average Weekday		Directio	nal Distrib	ution: 50% entering, 50% exiting
T = 470.95 (X)		T =	2120	Average Vehicle Trip Ends
T = 470.95 *	4.500	1060	entering	1060 exiting
		1060	+ 10	060 = 2120

Saturday Peak Hour of Generator (900 Series page 163)

		Direction	nal Distribution:	51%	ent. 49%	exit.
T = 54.86 (X)		T =	247 Avera	ige Vehicle Tr	ip Ends	
T = 54.86 *	4.500	126	entering	121 exitin	ıg	
		126	+ 121 =	247		

Non Pass-By Trip	Volum	es (Per ITE Trip	Generation Handboo	ok, 3rd E	<u>Edition September 2</u>	<u> 2017)</u>
AM Peak Hour =	51%	Non-Pass By	PM Peak Hour =	50%	Non-Pass By	
IN		Out Total				

IN Out Total

AM Peak 47 45 92

PM Peak 38 36 74

Daily 530 530 1060 PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Handbook, 3rd Edition September 2017)

AM Peak Hou	ır = 49	% Pas	s By	PM Peak Hour =	50%	Pass By
	IN	Out	Total			
AM Peak	45	44	89			
PM Peak	38	36	74			
Daily	530	530	1060	PM Peak Hour Rat	e Applied	d to Daily

APPENDIX D

Intersection Analysis Worksheets

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1		7	1			4			4	
Traffic Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Future Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	86	46	45	94	44	56	25	50	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	108	80	20	109	16	16	4	4	8	4	32
Major/Minor N	/lajor1			Major2			Minor1		1	Minor2		
Conflicting Flow All	125	0	0	188	0	0	379	369	148	365	401	117
Stage 1	-	-	-	-	-	-	204	204	-	157	157	-
Stage 2	-	-	-	-	-	-	175	165	-	208	244	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
3 3	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1462	-	-	1386	-	-	579	560	899	591	538	935
Stage 1	-	-	-	-	-	-	798	733	-	845	768	-
Stage 2	-	-	-	-	-	-	827	762	-	794	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1462	-	-	1386	-	-	542	542	899	570	520	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	542	542	-	570	520	-
Stage 1	-	-	-	-	-	-	783	719	-	829	757	-
Stage 2	-	-	-	-	-	-	783	751	-	771	691	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.1			11.5			9.9		
HCM LOS	•						В			A		
										,,		
Minor Lane/Major Mvm	it [NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		580	1462	-	-	1386	-	-	786			
HCM Lane V/C Ratio		0.042		-		0.014	-	-	0.056			
HCM Control Delay (s)		11.5	7.5	-	-	7.6	-	-	9.9			
HCM Lane LOS		В	A	-	-	Α	-	-	Α			
HCM 95th %tile Q(veh))	0.1	0.1	-	-	0	-	-	0.2			

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	P		*	f)			4			4	
Traffic Vol, veh/h	74	235	24	10	231	45	31	3	11	30	0	92
Future Vol, veh/h	74	235	24	10	231	45	31	3	11	30	0	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	·-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	:,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	95	67	62	89	86	86	25	46	68	92	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	247	36	16	260	52	36	12	24	44	0	124
Major/Minor N	Major1		ľ	Major2		ı	Minor1		ſ	Minor2		
Conflicting Flow All	312	0	0	283	0	0	805	769	265	761	761	286
Stage 1	-	-	-	-	-	-	425	425	-	318	318	-
Stage 2	-	-	-	-	-	-	380	344	-	443	443	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1248	-	-	1279	-	-	301	332	774	322	335	753
Stage 1	-	-	-	-	-	-	607	586	-	693	654	-
Stage 2	-	-	-	-	-	-	642	637	-	594	576	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1248	-	-	1279	-	-	237	307	774	285	310	753
Mov Cap-2 Maneuver	-	-	-	-	-	-	237	307	-	285	310	-
Stage 1	-	-	-	-	-	-	568	548	-	649	645	-
Stage 2	-	-	-	-	-	-	529	629	-	527	539	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.8			0.4			19.3			15		
HCM LOS							С			С		
Minor Lane/Major Mvm	nt r	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		324	1248	-		1279	-	-	527			
HCM Lane V/C Ratio		0.222		-		0.013	-	-	0.32			
HCM Control Delay (s)		19.3	8.1	-	-	7.9	-	-	15			
HCM Lane LOS		С	Α	-	-	Α	-	-	С			
HCM 95th %tile Q(veh))	0.8	0.2	-	-	0	-	-	1.4			

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	1			4			4	
Traffic Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Future Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	89	60	50	81	62	62	25	38	85	25	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	180	301	20	8	354	81	16	4	8	52	4	172
Major/Minor N	Major1		_	Major2			Minor1		_	Minor2		
Conflicting Flow All	435	0	0	321	0	0	1170	1122	311	1088	1092	395
Stage 1	-	-	-	-	-	-	671	671	-	411	411	-
Stage 2	-	-	-	-	-	-	499	451	-	677	681	-
Critical Hdwy	4.12	_	_	4.12	_	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	_	-	-	_	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	_	_	_	_	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1125	_	_	1239	_	-	170	206	729	193	215	654
Stage 1	-	-	-	-	-	-	446	455	-	618	595	-
Stage 2	-	-	-	-	-	-	554	571	-	443	450	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1125	-	-	1239	-	-	107	172	729	164	180	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	172	-	164	180	-
Stage 1	-	-	-	-	-	-	375	382	-	519	591	-
Stage 2	-	-	-	-	-	-	403	568	-	364	378	-
3												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.2			0.1			34			27.8		
HCM LOS							D			D		
							_					
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		152	1125	-		1239	-	-	379			
HCM Lane V/C Ratio		0.184	0.16	-		0.006	-	-	0.602			
HCM Control Delay (s)		34	8.8	-	-	7.9	-	-				
HCM Lane LOS		D	A	-	-	Α	-	-	D			
HCM 95th %tile Q(veh))	0.7	0.6	-	-	0	-	-	3.8			

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	f.		*	1			4			4	
Traffic Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Future Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	86	46	45	94	44	56	25	50	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	108	80	20	109	16	16	4	4	8	4	32
Major/Minor N	Major1			Major2		ı	Minor1		_	Minor2		
Conflicting Flow All	125	0	0	188	0	0	379	369	148	365	401	117
Stage 1	125	-		100	-	-	204	204	140	157	157	- 117
Stage 2	-	-			-	-	175	165	-	208	244	
Critical Hdwy	4.12			4.12		-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	T. 1Z	-		7.12	_	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	_	6.12	5.52	-
Follow-up Hdwy	2.218	-		2.218	-	_	3.518			3.518	4.018	
Pot Cap-1 Maneuver	1462			1386	_		579	560	899	591	538	935
Stage 1	1702	-		1300	-	-	798	733	077	845	768	733
Stage 2						-	827	762	-	794	704	-
Platoon blocked, %		-			-	-	UZI	102		7.74	704	
Mov Cap-1 Maneuver	1462		_	1386			542	542	899	570	520	935
Mov Cap-1 Maneuver	1702	_	_	-	_	_	542	542	- 077	570	520	755
Stage 1			_				783	719	_	829	757	
Stage 2	_	_	_	_	_	_	783	751	_	771	691	_
Juge 2							, 03	7 3 1		, , , ,	371	
0	F0			VCC			ND			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.1			11.5			9.9		
HCM LOS							В			Α		
Minor Lane/Major Mvm	nt r	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		580	1462	-	-	1386	-	-	786			
HCM Lane V/C Ratio		0.042	0.019	-	-	0.014	-	-	0.056			
HCM Control Delay (s)		11.5	7.5	-	-	7.6	-	-	9.9			
HCM Lane LOS		В	Α	-	-	Α	-	-	Α			
HCM 95th %tile Q(veh))	0.1	0.1	-	-	0	-	-	0.2			

Int Delay, s/veh 5 Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR Lane Configurations 1<
Lane Configurations 1 1 1 4 4 Traffic Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Future Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0
Traffic Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Future Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0
Traffic Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Future Vol, veh/h 74 235 24 10 231 45 31 3 11 30 0 92 Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0
,
Sign Control Free Free Free Free Free Free Ston Ston Ston Ston Ston Ston Ston Ston
organ control troc troc troc troc troc order order order order order order
RT Channelized None None None
Storage Length 65 90
Veh in Median Storage, # - 0 0 0 -
Grade, % - 0 0 0 -
Peak Hour Factor 93 95 67 62 89 86 86 25 46 68 92 74
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2
Mvmt Flow 80 247 36 16 260 52 36 12 24 44 0 124
Major/Minor Major1 Major2 Minor1 Minor2
Conflicting Flow All 312 0 0 283 0 0 805 769 265 761 761 286
Stage 1 425 425 - 318 318 -
Stage 2 380 344 - 443 443 -
Critical Hdwy 4.12 4.12 7.12 6.52 6.22 7.12 6.52 6.22
Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 -
Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 -
Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318
Pot Cap-1 Maneuver 1248 1279 301 332 774 322 335 753
Stage 1 607 586 - 693 654 -
Stage 2 642 637 - 594 576 -
Platoon blocked, %
Mov Cap-1 Maneuver 1248 1279 237 307 774 285 310 753
Mov Cap-2 Maneuver 237 307 - 285 310 -
Stage 1 568 548 - 649 645 -
Stage 2 529 629 - 527 539 -
Approach EB WB NB SB
HCM Control Delay, s 1.8 0.4 19.3 15 HCM LOS C C
HOW LOS
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1
Capacity (veh/h) 324 1248 1279 527
HCM Lane V/C Ratio 0.222 0.064 0.013 0.32
HCM Control Delay (s) 19.3 8.1 7.9 15
HCM Lane LOS C A A C
HCM 95th %tile Q(veh) 0.8 0.2 0 1.4

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	1			4			4	
Traffic Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Future Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	89	60	50	81	62	62	25	38	85	25	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	180	301	20	8	354	81	16	4	8	52	4	172
Major/Minor N	Major1		ľ	Major2		ı	Vinor1		I	Minor2		
Conflicting Flow All	435	0	0	321	0	0	1170	1122	311	1088	1092	395
Stage 1	-	-	-	-	-	-	671	671	-	411	411	-
Stage 2	-	-	-	-	-	-	499	451	-	677	681	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1125	-	-	1239	-	-	170	206	729	193	215	654
Stage 1	-	-	-	-	-	-	446	455	-	618	595	-
Stage 2	-	-	-	-	-	-	554	571	-	443	450	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1125	-	-	1239	-	-	107	172	729	164	180	654
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	172	-	164	180	-
Stage 1	-	-	-	-	-	-	375	382	-	519	591	-
Stage 2	-	-	-	-	-	-	403	568	-	364	378	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.2			0.1			34			27.8		
HCM LOS							D			D		
Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		152	1125	-	-	1239	-	-	379			
HCM Lane V/C Ratio		0.184	0.16	-		0.006	-	-	0.602			
HCM Control Delay (s)		34	8.8	-	-	7.9	-	-				
HCM Lane LOS		D	A	-	-	Α	-	-	D			
HCM 95th %tile Q(veh))	0.7	0.6	-	-	0	-	-	3.8			

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	1			4			4	
Traffic Vol, veh/h	96	93	37	9	102	21	9	1	2	15	1	92
Future Vol, veh/h	96	93	37	9	102	21	9	1	2	15	1	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	86	46	45	94	44	56	25	50	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	150	108	80	20	109	48	16	4	4	60	4	184
Major/Minor N	Major1			Major2		1	Minor1		ı	Minor2		
Conflicting Flow All	157	0	0	188	0	0	715	645	148	625	661	133
Stage 1	-	-	-	-	-	-	448	448	-	173	173	-
Stage 2	-	-	_	-	-	-	267	197	-	452	488	-
Critical Hdwy	4.12	-	_	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1386	-	-	346	391	899	397	383	916
Stage 1	-	-	-	-	-	-	590	573	-	829	756	-
Stage 2	-	-	-	-	-	-	738	738	-	587	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1386	-	-	249	345	899	356	338	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	345	-	356	338	-
Stage 1	-	-	-	-	-	-	528	513	-	742	745	-
Stage 2	-	-	-	-	-	-	578	728	-	519	492	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.5			0.9			18.1			13.9		
HCM LOS							С			В		
Minor Lane/Major Mvm	nt I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		299	1423	-		1386	-		650			
HCM Lane V/C Ratio		0.081	0.105	-		0.014	-	_	0.382			
HCM Control Delay (s)		18.1	7.8	-	-	7.6	-		13.9			
HCM Lane LOS		С	Α	-	-	Α	-	-	В			
HCM 95th %tile Q(veh))	0.3	0.4	-	-	0	-	-	1.8			

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	P		*	1			4			4	
Traffic Vol, veh/h	139	235	24	10	231	56	31	3	11	41	0	152
Future Vol, veh/h	139	235	24	10	231	56	31	3	11	41	0	152
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	95	67	62	89	86	86	25	46	68	92	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	149	247	36	16	260	65	36	12	24	60	0	205
Major/Minor N	/lajor1			Major2			Minor1			Minor2		
Conflicting Flow All	325	0	0	283	0	0	990	920	265	906	906	293
Stage 1	-	-	-	-	-	-	563	563	-	325	325	-
Stage 2	_	_	_	_	_	_	427	357	_	581	581	_
Critical Hdwy	4.12	_	_	4.12	_	_	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1		_	_	-	_	_	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	_	_	_	-	_	_	6.12	5.52	-	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1235	-	-	1279	-	-	225	271	774	257	276	746
Stage 1			-				511	509	-	687	649	
Stage 2	-	-	-	-	-	-	606	628	-	499	500	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1235	-	-	1279	-	-	147	235	774	215	240	746
Mov Cap-2 Maneuver	-	-	-	-	-	-	147	235	-	215	240	-
Stage 1	-	-	-	-	-	-	449	447	-	604	641	-
Stage 2	-	-	-	-	-	-	434	620	-	414	440	-
Approach	EB			WB			NB			SB		
	2.9			0.4			29.1			21.6		
HCM Control Delay, s HCM LOS	2.9			0.4						21.6 C		
TION LOS							D			C		
		IDI (14/5	11/5=	14/55	201			
Minor Lane/Major Mvm	it f	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S				
Capacity (veh/h)		220	1235	-	-	1279	-	-	478			
HCM Lane V/C Ratio		0.327		-	-	0.013	-		0.556			
HCM Control Delay (s)		29.1	8.3	-	-	7.9	-	-	21.6			
HCM Lane LOS		D	A	-	-	A	-	-	C			
HCM 95th %tile Q(veh)		1.4	0.4	-	-	0	-	-	3.3			

Intersection												
Int Delay, s/veh	43.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	P		*	1			4			4	
Traffic Vol, veh/h	274	268	12	4	287	69	10	1	3	62	1	258
Future Vol, veh/h	274	268	12	4	287	69	10	1	3	62	1	258
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	90	-	-	-	-	-	-	-	-
Veh in Median Storage	e, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	89	60	50	81	62	62	25	38	85	25	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	295	301	20	8	354	111	16	4	8	73	4	287
Major/Minor N	Major1		<u> </u>	Major2			Vinor1			Minor2		
Conflicting Flow All	465	0	0	321	0	0	1472	1382	311	1333	1337	410
Stage 1	-	-	-	-	-	-	901	901	-	426	426	-
Stage 2	-	-	-	-	-	-	571	481	-	907	911	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1096	-	-	1239	-	-	105	144	729	131	153	642
Stage 1	-	-	-	-	-	-	333	357	-	606	586	-
Stage 2	-	-	-	-	-	-	506	554	-	330	353	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1096	-	-	1239	-	-	45	105	729	99	111	642
Mov Cap-2 Maneuver	-	-	-	-	-	-	45	105	-	99	111	-
Stage 1	-	-	-	-	-	-	243	261	-	443	582	-
Stage 2	-	-	-	-	-	-	276	551	-	235	258	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.5			0.1			89.1			161.9		
HCM LOS							F			F		
Minor Lane/Major Mvm	nt ſ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		69	1096	-	-	1239	-	-	298			
HCM Lane V/C Ratio		0.406	0.269	-	-	0.006	-	-	1.22			
HCM Control Delay (s)		89.1	9.5	-	-	7.9	-	-	161.9			
HCM Lane LOS		F	Α	-	-	Α	-	-	F			
HCM 95th %tile Q(veh))	1.6	1.1	-	-	0	-	-	16.5			

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Intersection												
Intersection Delay, s/veh	8.6											
Intersection LOS	0.0 A											
IIICISCUIOII LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	f.			4		*	1	
Traffic Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Future Vol, veh/h	18	93	37	9	102	7	9	1	2	2	1	16
Peak Hour Factor	0.64	0.86	0.46	0.45	0.94	0.44	0.56	0.25	0.50	0.25	0.25	0.50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	108	80	20	109	16	16	4	4	8	4	32
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	8.7			8.5			8.7			7.9		
HCM LOS	Α			Α			А			Α		
Lane		NBLn1	EBLn1		WBLn1		SBLn1	SBLn2				
Vol Left, %		75%	100%	0%	100%	0%	100%	0%				
Vol Thru, %		8%	0%	72%	0%	94%	0%	6%				
Vol Right, %		17%	0%	28%	0%	6%	0%	94%				
Sign Control		Stop										
Traffic Vol by Lane		12	18	130	9	109	2	17				
LT Vol		9	18	0	9	0	2	0				
Through Vol		1	0	93	0	102	0	1				
RT Vol		2	0	37	0	7	0	16				
Lane Flow Rate		24	28	189	20	124	8	36				
Geometry Grp		6	7	7	7	7	7	7				
Degree of Util (X)		0.037	0.042	0.243	0.03	0.167	0.013	0.048				
Departure Headway (Hd)		5.494	5.332	4.631	5.386	4.839	5.919	4.754				
Convergence, Y/N		Yes										
Cap		653	674	779	667	744	606	754				
Service Time		3.518	3.045	2.344	3.101	2.554	3.641	2.476				
HCM Lane V/C Ratio		0.037	0.042	0.243	0.03	0.167	0.013	0.048				

8.7

0.1

Α

8.3

0.1

Α

8.8

Α

1

8.3

0.1

Α

8.5

Α

0.6

8.7

Α

0

7.7

Α

HCM Lane LOS

HCM 95th-tile Q

Interception												
Intersection Delay alvah	10.0											
Intersection Delay, s/veh	12.2											
Intersection LOS	В											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		1	T ₂			4		1	P	
Traffic Vol, veh/h	74	235	24	10	231	45	31	3	11	30	0	92
Future Vol, veh/h	74	235	24	10	231	45	31	3	11	30	0	92
Peak Hour Factor	0.93	0.95	0.67	0.62	0.89	0.86	0.86	0.25	0.46	0.68	0.92	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	247	36	16	260	52	36	12	24	44	0	124
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	12.2			13.5			10.8			10.1		
HCM LOS	В			В			В			В		
Lane		NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %		69%	100%	0%	100%	0%	100%	0%				
Vol Thru, %		7%	0%	91%	0%	84%	0%	0%				
Vol Right, %		24%	0%	9%	0%	16%	0%	100%				
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop				
Traffic Vol by Lane		45	74	259	10	276	30	92				
LT Vol		31	74	0	10	0	30	0				
Through Vol		3	0	235	0	231	0	0				
RT Vol		11	0	24	0	45	0	92				
Lane Flow Rate		72	80	283	16	312	44	124				
Geometry Grp		6	7	7	7	7	7	7				
Degree of Util (X)		0.134	0.137	0.444	0.028	0.489	0.086	0.2				
Departure Headway (Hd)		6.702	6.213	5.642	6.266	5.645	7.016	5.799				
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Cap		534	578	640	572	639	510	618				
Service Time		4.752	3.946	3.375	4	3.378	4.76	3.542				
HCM Lane V/C Ratio		0.135	0.138	0.442	0.028	0.488	0.086	0.201				
HCM Control Delay		10.8	9.9	12.8	9.2	13.7	10.4	10				
HOM Lawar LOC			Δ.		Λ.			Λ.				

В

2.3

Α

0.1

В

2.7

В

0.3

Α

0.7

В

0.5

Α

Intersection												
Intersection Delay, s/veh	16.8											
Intersection LOS	С											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	f)		*	P			4		*	1	
Traffic Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Future Vol, veh/h	167	268	12	4	287	50	10	1	3	44	1	155
Peak Hour Factor	0.93	0.89	0.60	0.50	0.81	0.62	0.62	0.25	0.38	0.85	0.25	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	180	301	20	8	354	81	16	4	8	52	4	172
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	14.3			22.6			11.2			11.7		
HCM LOS	В			С			В			В		
Lane		NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %		71%	100%	0%	100%	0%	100%	0%				
Vol Thru, %		7%	0%	96%	0%	85%	0%	1%				
Vol Right, %		21%	0%	4%	0%	15%	0%	99%				
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop				
Traffic Vol by Lane		14	167	280	4	337	44	156				
LT Vol		10	167	0	4	0	44	0				
Through Vol		1	0	268	0	287	0	1				
RT Vol		3	0	12	0	50	0	155				
Lane Flow Rate		28	180	321	8	435	52	176				
Geometry Grp		6	7	7	7	7	7	7				
Degree of Util (X)		0.059	0.324	0.531	0.015	0.722	0.108	0.31				
D 1 11 1 /11 \)		7 /4	/ 100	E 055	/ 50/	E 070	7 5 40	/ 00 /				

7.61

Yes

468

5.706

0.06

11.2

В

0.2

Departure Headway (Hd)

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

6.493

Yes

553

4.246

0.325

12.4

В

1.4

5.955

Yes

604

3.708

0.531

15.3

C

3.1

6.586

Yes

542

4.339

0.015

9.4

Α

0

5.973

Yes

605

3.726

0.719

22.8

C

6

7.543

Yes

474

5.31

0.11

11.2

В

0.4

6.324

Yes

566

4.09

0.311

11.9

В

Intersection												
Intersection Delay, s/veh	10.1											
Intersection LOS	В											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	ħ			4		*	1	
Traffic Vol, veh/h	96	93	37	9	102	21	9	1	2	15	1	92
Future Vol, veh/h	96	93	37	9	102	21	9	1	2	15	1	92
Peak Hour Factor	0.64	0.86	0.46	0.45	0.94	0.44	0.56	0.25	0.50	0.25	0.25	0.50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	150	108	80	20	109	48	16	4	4	60	4	184
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	10.3			10			9.6			9.8		
HCM LOS	В			Α			Α			Α		
Lane		NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %		75%	100%	0%	100%	0%	100%	0%				
Vol Thru, %		8%	0%	72%	0%	83%	0%	1%				
Vol Right, %		17%	0%	28%	0%	17%	0%	99%				
Sign Control		Stop										
Traffic Vol by Lane		12	96	130	9	123	15	93				
LT Vol		9	96	0	9	0	15	0				
Through Vol		1	0	93	0	102	0	1				
RT Vol		2	0	37	0	21	0	92				
Lane Flow Rate		24	150	189	20	156	60	188				
Geometry Grp		6	7	7	7	7	7	7				
Degree of Util (X)		0.042	0.248	0.274	0.034	0.239	0.106	0.269				
Departure Headway (Hd)		6.338	5.945	5.24	6.138	5.512	6.352	5.15				
Convergence, Y/N		Yes										
Cap		568	599	679	578	644	560	690				
Service Time		4.338	3.732	3.027	3.937	3.311	4.135	2.932				
HCM Lane V/C Ratio		0.042	0.25	0.278	0.035	0.242	0.107	0.272				
HCM Control Delay		9.6	10.7	10	9.2	10.1	9.9	9.8				

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HCM Lane LOS

HCM 95th-tile Q

HCM 95th-tile Q

Intersection												
Intersection Delay, s/veh	13.7											
Intersection LOS	В											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		ħ	f)			4		*	7>	
Traffic Vol, veh/h	139	235	24	10	231	56	31	3	11	41	0	152
Future Vol, veh/h	139	235	24	10	231	56	31	3	11	41	0	152
Peak Hour Factor	0.93	0.95	0.67	0.62	0.89	0.86	0.86	0.25	0.46	0.68	0.92	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	149	247	36	16	260	65	36	12	24	60	0	205
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	13.5			15.9			11.6			11.9		
HCM LOS	В			С			В			В		
Lane		NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %		69%	100%	0%	100%	0%	100%	0%				
Vol Thru, %		7%	0%	91%	0%	80%	0%	0%				
Vol Right, %		24%	0%	9%	0%	20%	0%	100%				
Sign Control		Stop										
Traffic Vol by Lane		45	139	259	10	287	41	152				
LT Vol		31	139	0	10	0	41	0				
Through Vol		3	0	235	0	231	0	0				
RT Vol		11	0	24	0	56	0	152				
Lane Flow Rate		72	149	283	16	325	60	205				
Geometry Grp		6	7	7	7	7	7	7				
Degree of Util (X)		0.145	0.276	0.477	0.03	0.552	0.122	0.348				
Departure Headway (Hd)		7.233	6.639	6.065	6.772	6.125	7.312	6.092				
Convergence, Y/N		Yes										
Cap		492	540	592	527	588	488	587				
Service Time		5.326	4.402	3.828	4.538	3.89	5.084	3.862				
HCM Lane V/C Ratio		0.146	0.276	0.478	0.03	0.553	0.123	0.349				
HCM Control Delay		11.6	11.9	14.3	9.7	16.2	11.1	12.1				
HCM Lane LOS		В	В	В	Α	С	В	В				
LIOM OF H. 41. O		ο -	1 1	2 /	0.1	2.4	0.4	1 /				

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2.6

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HCM 95th-tile Q

Intersection												
Intersection Delay, s/veh	25.9											
Intersection LOS	D											
mioradallon 200												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1		*	1			4		*	f)	
Traffic Vol, veh/h	274	268	12	4	287	69	10	1	3	62	1	258
Future Vol, veh/h	274	268	12	4	287	69	10	1	3	62	1	258
Peak Hour Factor	0.93	0.89	0.60	0.50	0.81	0.62	0.62	0.25	0.38	0.85	0.25	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	295	301	20	8	354	111	16	4	8	73	4	287
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			1			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			2			2			2		
HCM Control Delay	19.9			41.6			12.5			16.8		
HCM LOS	С			Е			В			С		
Lane		NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Lane Vol Left, %		71%	100%	0%	100%	0%	SBLn1 100%	0%				
		71% 7%	100% 0%	0% 96%	100% 0%	0% 81%	SBLn1 100% 0%	0% 0%				
Vol Left, %		71% 7% 21%	100%	0%	100%	0% 81% 19%	SBLn1 100% 0% 0%	0% 0% 100%				
Vol Left, % Vol Thru, %		71% 7%	100% 0% 0% Stop	0% 96% 4% Stop	100% 0%	0% 81% 19% Stop	SBLn1 100% 0%	0% 0% 100% Stop				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane		71% 7% 21% Stop 14	100% 0% 0% Stop 274	0% 96 % 4%	100% 0% 0%	0% 81% 19%	SBLn1 100% 0% 0% Stop 62	0% 0% 100% Stop 259				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol		71% 7% 21% Stop 14 10	100% 0% 0% Stop	0% 96% 4% Stop 280	100% 0% 0% Stop	0% 81% 19% Stop 356	SBLn1 100% 0% 0% Stop	0% 0% 100% Stop 259				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol		71% 7% 21% Stop 14 10	100% 0% 0% Stop 274 274	0% 96% 4% Stop 280 0 268	100% 0% 0% Stop 4 4	0% 81% 19% Stop 356 0 287	SBLn1 100% 0% 0% Stop 62 62 0	0% 0% 100% Stop 259 0				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol		71% 7% 21% Stop 14 10 1	100% 0% 0% Stop 274 274 0	0% 96% 4% Stop 280 0 268	100% 0% 0% Stop 4 4 0	0% 81% 19% Stop 356 0 287	SBLn1 100% 0% 0% Stop 62 62 0	0% 0% 100% Stop 259 0 1				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate		71% 7% 21% Stop 14 10 1 3 28	100% 0% 0% Stop 274 274 0 0	0% 96% 4% Stop 280 0 268 12 321	100% 0% 0% Stop 4 4 0	0% 81% 19% Stop 356 0 287 69 466	SBLn1 100% 0% 0% Stop 62 62 0 0 73	0% 0% 100% Stop 259 0 1 258 291				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp		71% 7% 21% Stop 14 10 1 3 28	100% 0% 0% Stop 274 274 0 0 295	0% 96% 4% Stop 280 0 268 12 321	100% 0% 0% Stop 4 4 0 0	0% 81% 19% Stop 356 0 287 69 466	SBLn1 100% 0% 0% Stop 62 62 0 0 73	0% 0% 100% Stop 259 0 1 258 291				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X)		71% 7% 21% Stop 14 10 1 3 28 6 0.069	100% 0% 0% Stop 274 274 0 0 295 7	0% 96% 4% Stop 280 0 268 12 321 7 0.605	100% 0% 0% Stop 4 4 0 0 8 7	0% 81% 19% Stop 356 0 287 69 466 7 0.885	SBLn1 100% 0% 0% Stop 62 62 0 0 73 7	0% 0% 100% Stop 259 0 1 258 291 7 0.555				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd)		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778	100% 0% 0% Stop 4 4 0 0 8 7 0.017 7.493	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843	SBLn1 100% 0% 0% Stop 62 62 0 73 7 0.164 8.108	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816 Yes	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32 Yes	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778 Yes	100% 0% 0% Stop 4 4 0 0 8 7 0.017 7.493 Yes	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843 Yes	SBLn1 100% 0% 0% Stop 62 62 0 0 73 7 0.164 8.108 Yes	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879 Yes				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816 Yes 406	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32 Yes 492	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778 Yes 533	100% 0% 0% Stop 4 0 0 0 8 7 0.017 7.493 Yes 478	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843 Yes 531	SBLn1 100% 0% 0% Stop 62 62 0 0 73 7 0.164 8.108 Yes 443	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879 Yes 526				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816 Yes 406 6.884	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32 Yes 492 5.061	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778 Yes 533 4.518	100% 0% 0% Stop 4 4 0 0 8 7 0.017 7.493 Yes 478 5.232	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843 Yes 531 4.581	SBLn1 100% 0% 0% Stop 62 62 0 73 7 0.164 8.108 Yes 443 5.846	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879 Yes 526 4.617				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time HCM Lane V/C Ratio		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816 Yes 406 6.884 0.069	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32 Yes 492 5.061 0.6	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778 Yes 533 4.518 0.602	100% 0% 0% Stop 4 4 0 0 8 7 0.017 7.493 Yes 478 5.232 0.017	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843 Yes 531 4.581 0.878	SBLn1 100% 0% 0% Stop 62 62 0 0 73 7 0.164 8.108 Yes 443 5.846 0.165	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879 Yes 526 4.617 0.553				
Vol Left, % Vol Thru, % Vol Right, % Sign Control Traffic Vol by Lane LT Vol Through Vol RT Vol Lane Flow Rate Geometry Grp Degree of Util (X) Departure Headway (Hd) Convergence, Y/N Cap Service Time		71% 7% 21% Stop 14 10 1 3 28 6 0.069 8.816 Yes 406 6.884	100% 0% 0% Stop 274 274 0 0 295 7 0.599 7.32 Yes 492 5.061	0% 96% 4% Stop 280 0 268 12 321 7 0.605 6.778 Yes 533 4.518	100% 0% 0% Stop 4 4 0 0 8 7 0.017 7.493 Yes 478 5.232	0% 81% 19% Stop 356 0 287 69 466 7 0.885 6.843 Yes 531 4.581	SBLn1 100% 0% 0% Stop 62 62 0 73 7 0.164 8.108 Yes 443 5.846	0% 0% 100% Stop 259 0 1 258 291 7 0.555 6.879 Yes 526 4.617				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	*	7	7	*	7	1	र्स	7		र्स	7
Traffic Volume (veh/h)	129	540	23	14	518	29	20	5	10	15	0	125
Future Volume (veh/h)	129	540	23	14	518	29	20	5	10	15	0	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	593	44	20	551	44	22	26	12	24	0	78
Peak Hour Factor	0.67	0.91	0.52	0.70	0.94	0.66	0.62	0.42	0.83	0.62	0.92	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	643	2513	1121	601	2437	1087	139	145	123	111	0	99
Arrive On Green	0.04	0.71	0.71	0.02	0.69	0.69	0.08	0.08	0.08	0.06	0.00	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	0	1585
Grp Volume(v), veh/h	193	593	44	20	551	44	22	26	12	24	0	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	4.4	7.9	1.1	0.5	7.8	1.2	1.6	1.8	0.9	1.7	0.0	6.6
Cycle Q Clear(g_c), s	4.4	7.9	1.1	0.5	7.8	1.2	1.6	1.8	0.9	1.7	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	643	2513	1121	601	2437	1087	139	145	123	111	0	99
V/C Ratio(X)	0.30	0.24	0.04	0.03	0.23	0.04	0.16	0.18	0.10	0.22	0.00	0.79
Avail Cap(c_a), veh/h	643	2513	1121	639	2437	1087	139	145	123	139	0	123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.9	7.0	6.0	6.0	7.9	6.9	58.1	58.2	57.8	60.2	0.0	62.4
Incr Delay (d2), s/veh	0.3	0.2	0.1	0.0	0.2	0.1	2.4	2.7	1.6	1.0	0.0	23.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.0	0.4	0.2	3.0	0.4	0.8	0.9	0.4	0.8	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	7.2	6.0	6.0	8.1	6.9	60.6	60.9	59.4	61.1	0.0	85.7
LnGrp LOS	A	A	A	A	A	A	E	E	E	<u>E</u>	A	<u> </u>
Approach Vol, veh/h		830			615			60			102	
Approach Delay, s/veh		6.9			7.9			60.5			79.9	
Approach LOS		Α			Α			Е			Е	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	7.1	99.9		12.9	10.0	97.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		10.5	5.5	90.5		10.5	5.5	90.5				
Max Q Clear Time (g_c+l1), s		3.8	2.5	9.9		8.6	6.4	9.8				
Green Ext Time (p_c), s		0.1	0.0	4.9		0.0	0.0	4.5				
Intersection Summary												
HCM 6th Ctrl Delay			13.9									
HCM 6th LOS			В									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBI Lane Configurations 1 <t< th=""></t<>
Traffic Volume (veh/h) 272 674 49 48 692 29 57 31 49 28 9 31 Future Volume (veh/h) 272 674 49 48 692 29 57 31 49 28 9 31
Future Volume (veh/h) 272 674 49 48 692 29 57 31 49 28 9 31
Initial Q (Qb), veh 0 0 0 0 0 0 0 0
Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Work Zone On Approach No No No No
Adj Sat Flow, veh/h/ln 1870 1870 1870 1870 1870 1870 1870 1870
Adj Flow Rate, veh/h 292 717 64 68 721 40 50 56 68 56 12 10
Peak Hour Factor 0.93 0.94 0.77 0.71 0.96 0.72 0.89 0.86 0.72 0.50 0.75 0.9
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2
Cap, veh/h 554 2270 1012 505 2103 938 156 164 139 128 27 13
Arrive On Green 0.08 0.64 0.64 0.04 0.59 0.59 0.09 0.09 0.09 0.09 0.09 0.09
Sat Flow, veh/h 1781 3554 1585 1781 3554 1585 1781 1870 1585 1479 317 158
Grp Volume(v), veh/h 292 717 64 68 721 40 50 56 68 68 0 10
Grp Sat Flow(s), veh/h/ln 1781 1777 1585 1781 1777 1585 1781 1870 1585 1796 0 158
Q Serve(g_s), s 7.2 11.0 1.8 1.8 12.5 1.3 3.2 3.4 4.9 4.3 0.0 8.
Cycle Q Clear(g_c), s 7.2 11.0 1.8 1.8 12.5 1.3 3.2 3.4 4.9 4.3 0.0 8.
Prop In Lane 1.00 1.00 1.00 1.00 1.00 0.82 1.0
Lane Grp Cap(c), veh/h 554 2270 1012 505 2103 938 156 164 139 155 0 13
V/C Ratio(X) 0.53 0.32 0.06 0.13 0.34 0.04 0.32 0.34 0.49 0.44 0.00 0.7
Avail Cap(c_a), veh/h 952 2270 1012 716 2103 938 156 164 139 271 0 23
HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Uniform Delay (d), s/veh 8.3 9.8 8.2 8.7 12.5 10.3 51.4 51.5 52.2 52.0 0.0 53.
Incr Delay (d2), s/veh 0.8 0.4 0.1 0.1 0.4 0.1 5.4 5.6 11.9 1.9 0.0 9.
Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
%ile BackOfQ(50%),veh/ln 2.7 4.2 0.6 0.7 5.0 0.5 1.6 1.8 2.4 2.0 0.0 3.
Unsig. Movement Delay, s/veh
LnGrp Delay(d),s/veh 9.0 10.2 8.3 8.8 13.0 10.3 56.8 57.1 64.1 54.0 0.0 63.
LnGrp LOS A B A A B B E E E D A
Approach Vol, veh/h 1073 829 174 176
Approach Delay, s/veh 9.8 12.5 59.7 59.7
Approach LOS A B E E
Timer - Assigned Phs 2 3 4 6 7 8
Phs Duration (G+Y+Rc), s 15.0 9.0 81.1 14.9 14.6 75.5
Change Period (Y+Rc), s 4.5 4.5 4.5 4.5 4.5
Max Green Setting (Gmax), s 10.5 18.7 54.7 18.1 36.9 36.5
Max Q Clear Time (g_c+l1), s 6.9 3.8 13.0 10.0 9.2 14.5
Green Ext Time (p_c), s 0.2 0.1 6.1 0.4 0.9 5.3
Intersection Summary
HCM 6th Ctrl Delay 18.5
HCM 6th LOS B

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^	7	*	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	402	912	77	42	750	42	87	14	60	45	20	413
Future Volume (veh/h)	402	912	77	42	750	42	87	14	60	45	20	413
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	442	1013	68	56	852	21	127	0	50	60	28	16
Peak Hour Factor	0.91	0.90	0.77	0.75	0.88	0.81	0.75	0.88	0.71	0.75	0.71	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	576	2560	1142	429	2324	1036	172	0	76	81	38	104
Arrive On Green	0.10	0.72	0.72	0.03	0.65	0.65	0.05	0.00	0.05	0.07	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1233	575	1585
Grp Volume(v), veh/h	442	1013	68	56	852	21	127	0	50	88	0	16
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1809	0	1585
Q Serve(g_s), s	10.3	15.0	1.7	1.4	14.7	0.6	4.8	0.0	4.2	6.5	0.0	1.3
Cycle Q Clear(g_c), s	10.3	15.0	1.7	1.4	14.7	0.6	4.8	0.0	4.2	6.5	0.0	1.3
Prop In Lane	1.00	13.0	1.00	1.00	14.7	1.00	1.00	0.0	1.00	0.68	0.0	1.00
Lane Grp Cap(c), veh/h	576	2560	1142	429	2324	1036	172	0	76	119	0	1.00
V/C Ratio(X)	0.77	0.40	0.06	0.13	0.37	0.02	0.74	0.00	0.66	0.74	0.00	0.15
Avail Cap(c_a), veh/h	683	2560	1142	655	2324	1036	172	0.00	76	931	0.00	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Upstream Filter(I)			5.5		10.6	8.2	63.4	0.00	63.1	61.9		59.5
Uniform Delay (d), s/veh	8.3 4.4	7.4 0.5	0.1	7.0			24.7			8.8	0.0	
Incr Delay (d2), s/veh				0.1	0.4	0.0		0.0	36.3		0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.6	0.6	0.5	5.8	0.2	2.7	0.0	2.5	3.3	0.0	0.5
Unsig. Movement Delay, s/veh		7.0	Г/	7 1	11 1	0.0	00.1	0.0	00.5	70.7	0.0	(0.0
LnGrp Delay(d),s/veh	12.7	7.8	5.6	7.1	11.1	8.2	88.1	0.0	99.5	70.7	0.0	60.2
LnGrp LOS	В	Α	A	A	В	A	F	A	<u> </u>	E	A	E
Approach Vol, veh/h		1523			929			177			104	
Approach Delay, s/veh		9.1			10.8			91.3			69.1	
Approach LOS		Α			В			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.9	101.8		13.4	17.9	92.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		6.5	21.5	19.5		69.5	21.5	19.5				
Max Q Clear Time (g_c+l1), s		6.8	3.4	17.0		8.5	12.3	16.7				
Green Ext Time (p_c), s		0.0	0.1	1.6		0.6	1.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			17.3									
HCM 6th LOS			В									
N												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^	7	*	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	129	556	23	14	534	29	20	5	10	15	0	125
Future Volume (veh/h)	129	556	23	14	534	29	20	5	10	15	0	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	611	44	20	568	44	22	26	12	24	0	78
Peak Hour Factor	0.67	0.91	0.52	0.70	0.94	0.66	0.62	0.42	0.83	0.62	0.92	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	633	2513	1121	591	2437	1087	139	145	123	111	0	99
Arrive On Green	0.04	0.71	0.71	0.02	0.69	0.69	0.08	0.08	0.08	0.06	0.00	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	0	1585
Grp Volume(v), veh/h	193	611	44	20	568	44	22	26	12	24	0	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	4.4	8.2	1.1	0.5	8.1	1.2	1.6	1.8	0.9	1.7	0.0	6.6
Cycle Q Clear(g_c), s	4.4	8.2	1.1	0.5	8.1	1.2	1.6	1.8	0.9	1.7	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	633	2513	1121	591	2437	1087	139	145	123	111	0	99
V/C Ratio(X)	0.30	0.24	0.04	0.03	0.23	0.04	0.16	0.18	0.10	0.22	0.00	0.79
Avail Cap(c_a), veh/h	633	2513	1121	629	2437	1087	139	145	123	139	0	123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.9	7.0	6.0	6.0	7.9	6.9	58.1	58.2	57.8	60.2	0.0	62.4
Incr Delay (d2), s/veh	0.3	0.2	0.1	0.0	0.2	0.1	2.4	2.7	1.6	1.0	0.0	23.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.1	0.4	0.2	3.1	0.4	0.8	0.9	0.4	0.8	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	7.2	6.0	6.1	8.2	6.9	60.6	60.9	59.4	61.1	0.0	85.7
LnGrp LOS	<u>A</u>	Α	Α	Α	Α	Α	E	E	E	E	Α	F
Approach Vol, veh/h		848			632			60			102	
Approach Delay, s/veh		6.9			8.0			60.5			79.9	
Approach LOS		Α			Α			E			Е	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	7.1	99.9		12.9	10.0	97.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		10.5	5.5	90.5		10.5	5.5	90.5				
Max Q Clear Time (g_c+l1), s		3.8	2.5	10.2		8.6	6.4	10.1				
Green Ext Time (p_c), s		0.1	0.0	5.1		0.0	0.0	4.7				
Intersection Summary												
HCM 6th Ctrl Delay			13.8									
HCM 6th LOS			В									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	*	7	*	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	272	694	49	48	713	29	57	31	49	28	9	313
Future Volume (veh/h)	272	694	49	48	713	29	57	31	49	28	9	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	738	32	68	743	5	50	56	33	56	12	140
Peak Hour Factor	0.93	0.94	0.77	0.71	0.96	0.72	0.89	0.86	0.72	0.50	0.75	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	572	2351	1049	527	2200	981	82	86	73	156	33	167
Arrive On Green	0.08	0.66	0.66	0.04	0.62	0.62	0.05	0.05	0.05	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1479	317	1585
Grp Volume(v), veh/h	292	738	32	68	743	5	50	56	33	68	0	140
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1796	0	1585
Q Serve(g_s), s	6.7	10.6	0.8	1.6	12.1	0.1	3.3	3.5	2.4	4.2	0.0	10.4
Cycle Q Clear(g_c), s	6.7	10.6	0.8	1.6	12.1	0.1	3.3	3.5	2.4	4.2	0.0	10.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.82	_	1.00
Lane Grp Cap(c), veh/h	572	2351	1049	527	2200	981	82	86	73	189	0	167
V/C Ratio(X)	0.51	0.31	0.03	0.13	0.34	0.01	0.61	0.65	0.45	0.36	0.00	0.84
Avail Cap(c_a), veh/h	1091	2351	1049	1151	2200	981	82	86	73	232	0	205
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.2	8.7	7.0	7.5	11.0	8.7	56.2	56.3	55.8	49.9	0.0	52.7
Incr Delay (d2), s/veh	0.7	0.3	0.1	0.1	0.4	0.0	29.8	32.7	19.1	1.2	0.0	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.0	0.3	0.6	4.7	0.1	2.2	2.4	1.4	2.0	0.0	5.1
Unsig. Movement Delay, s/veh		0.0	71	7/	11 1	0.7	0/ 0	00.0	740	F1 1	0.0	747
LnGrp Delay(d),s/veh	7.9	9.0	7.1	7.6	11.4	8.7	86.0	89.0	74.9	51.1	0.0	74.7
LnGrp LOS	A	A 10/2	A	A	B	A	<u>F</u>	F	<u>E</u>	D	A	<u>E</u>
Approach Vol, veh/h		1062			816			139			208	
Approach Delay, s/veh		8.7			11.1			84.6			67.0	
Approach LOS		А			В			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	9.0	83.9		17.1	14.1	78.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		5.5	46.5	34.5		15.5	44.5	36.5				
Max Q Clear Time (g_c+I1), s		5.5	3.6	12.6		12.4	8.7	14.1				
Green Ext Time (p_c), s		0.0	0.2	5.4		0.2	0.9	5.4				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			В									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^	7	*	^	7	*	र्भ	7		र्स	7
Traffic Volume (veh/h)	402	940	77	42	773	42	87	14	60	45	20	413
Future Volume (veh/h)	402	940	77	42	773	42	87	14	60	45	20	413
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	442	1044	68	56	878	21	127	0	50	60	28	16
Peak Hour Factor	0.91	0.90	0.77	0.75	0.88	0.81	0.75	0.88	0.71	0.75	0.71	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	564	2560	1142	417	2324	1036	172	0	76	81	38	104
Arrive On Green	0.10	0.72	0.72	0.03	0.65	0.65	0.05	0.00	0.05	0.07	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1233	575	1585
Grp Volume(v), veh/h	442	1044	68	56	878	21	127	0	50	88	0	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1809	0	1585
Q Serve(g_s), s	10.3	15.7	1.7	1.4	15.3	0.6	4.8	0.0	4.2	6.5	0.0	1.3
Cycle Q Clear(g_c), s	10.3	15.7	1.7	1.4	15.3	0.6	4.8	0.0	4.2	6.5	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	564	2560	1142	417	2324	1036	172	0	76	119	0	104
V/C Ratio(X)	0.78	0.41	0.06	0.13	0.38	0.02	0.74	0.00	0.66	0.74	0.00	0.15
Avail Cap(c_a), veh/h	672	2560	1142	643	2324	1036	172	0	76	931	0	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.7	7.5	5.5	7.0	10.7	8.2	63.4	0.0	63.1	61.9	0.0	59.5
Incr Delay (d2), s/veh	5.1	0.5	0.1	0.1	0.5	0.0	24.7	0.0	36.3	8.8	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.8	0.6	0.5	6.0	0.2	2.7	0.0	2.5	3.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	8.0	5.6	7.2	11.2	8.2	88.1	0.0	99.5	70.7	0.0	60.2
LnGrp LOS	В	A	A	A	В	А	F	A	F	E	A	<u>E</u>
Approach Vol, veh/h		1554			955			177			104	
Approach Delay, s/veh		9.5			10.9			91.3			69.1	
Approach LOS		Α			В			F			Е	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.9	101.8		13.4	17.9	92.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		6.5	21.5	19.5		69.5	21.5	19.5				
Max Q Clear Time (g_c+l1), s		6.8	3.4	17.7		8.5	12.3	17.3				
Green Ext Time (p_c), s		0.0	0.1	1.2		0.6	1.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			17.4									
HCM 6th LOS			В									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	7	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	175	556	23	14	534	57	20	10	10	42	4	170
Future Volume (veh/h)	175	556	23	14	534	57	20	10	10	42	4	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	611	44	20	568	86	28	30	12	68	4	131
Peak Hour Factor	0.67	0.91	0.52	0.70	0.94	0.66	0.62	0.42	0.83	0.62	0.92	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	599	2458	1096	576	2382	1063	139	145	123	131	8	123
Arrive On Green	0.04	0.69	0.69	0.02	0.67	0.67	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1687	99	1585
Grp Volume(v), veh/h	261	611	44	20	568	86	28	30	12	72	0	131
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1786	0	1585
Q Serve(g_s), s	5.5	8.6	1.2	0.5	8.5	2.6	2.0	2.0	0.9	5.2	0.0	10.5
Cycle Q Clear(g_c), s	5.5	8.6	1.2	0.5	8.5	2.6	2.0	2.0	0.9	5.2	0.0	10.5
Prop In Lane	1.00	0.0	1.00	1.00	0.0	1.00	1.00	2.0	1.00	0.94	0.0	1.00
Lane Grp Cap(c), veh/h	599	2458	1096	576	2382	1063	139	145	123	139	0	123
V/C Ratio(X)	0.44	0.25	0.04	0.03	0.24	0.08	0.20	0.21	0.10	0.52	0.00	1.06
Avail Cap(c_a), veh/h	599	2458	1096	614	2382	1063	139	145	123	139	0	123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.6	7.8	6.6	6.7	8.7	7.8	58.3	58.3	57.8	59.8	0.0	62.3
Incr Delay (d2), s/veh	0.5	0.2	0.1	0.0	0.2	0.1	3.3	3.2	1.6	3.4	0.0	98.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.3	0.4	0.2	3.3	0.9	1.0	1.1	0.4	2.5	0.0	7.6
Unsig. Movement Delay, s/vel		0.0	0.1	0.2	0.0	0.7	1.0		0.1	2.0	0.0	7.0
LnGrp Delay(d),s/veh	8.1	8.0	6.7	6.7	9.0	7.9	61.6	61.5	59.4	63.2	0.0	161.1
LnGrp LOS	A	A	Α	A	Α.	A	E	E	E	E	A	F
Approach Vol, veh/h		916			674		<u> </u>	70			203	•
Approach Delay, s/veh		8.0			8.8			61.2			126.4	
Approach LOS		Α			Α			01.2 E			120.4 E	
					A						'	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	7.1	97.9		15.0	10.0	95.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		10.5	5.5	90.5		10.5	5.5	90.5				
Max Q Clear Time (g_c+I1), s		4.0	2.5	10.6		12.5	7.5	10.5				
Green Ext Time (p_c), s		0.1	0.0	5.1		0.0	0.0	4.8				
Intersection Summary												
HCM 6th Ctrl Delay			23.2									
HCM 6th LOS			С									
Notos												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	7	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	310	694	49	48	713	52	57	35	49	49	13	349
Future Volume (veh/h)	310	694	49	48	713	52	57	35	49	49	13	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	738	64	68	743	72	52	57	68	98	17	241
Peak Hour Factor	0.93	0.94	0.77	0.71	0.96	0.72	0.89	0.86	0.72	0.50	0.75	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	1751	781	371	1431	638	269	282	239	258	45	268
Arrive On Green	0.13	0.49	0.49	0.04	0.40	0.40	0.15	0.15	0.15	0.17	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1529	265	1585
Grp Volume(v), veh/h	333	738	64	68	743	72	52	57	68	115	0	241
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1794	0	1585
Q Serve(g_s), s	12.5	16.0	2.6	2.7	18.9	3.4	3.1	3.2	4.6	6.8	0.0	17.9
Cycle Q Clear(g_c), s	12.5	16.0	2.6	2.7	18.9	3.4	3.1	3.2	4.6	6.8	0.0	17.9
Prop In Lane	1.00	10.0	1.00	1.00	10.7	1.00	1.00	3.2	1.00	0.85	0.0	1.00
Lane Grp Cap(c), veh/h	451	1751	781	371	1431	638	269	282	239	303	0	268
V/C Ratio(X)		0.42	0.08	0.18	0.52	0.11	0.19	0.20	0.28	0.38	0.00	
` '	0.74 603	1751	781	387	1431	638	269	282	239	336	0.00	0.90
Avail Cap(c_a), veh/h												297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	19.5	16.1	19.7	27.1	22.4	44.6	44.6	45.2	44.3	0.0	48.9
Incr Delay (d2), s/veh	3.3	0.7	0.2	0.2	1.3	0.4	1.6	1.6	3.0	0.8	0.0	26.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.7	1.0	1.1	8.3	1.3	1.5	1.6	2.0	3.1	0.0	9.0
Unsig. Movement Delay, s/ve												
LnGrp Delay(d),s/veh	22.1	20.2	16.3	19.9	28.4	22.8	46.2	46.2	48.2	45.1	0.0	75.5
LnGrp LOS	<u> </u>	С	В	В	<u>C</u>	C	D	D	D	D	A	<u>E</u>
Approach Vol, veh/h		1135			883			177			356	
Approach Delay, s/veh		20.5			27.3			47.0			65.7	
Approach LOS		С			С			D			Е	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.6	9.0	63.6		24.8	19.8	52.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.1	5.6	55.8		22.5	25.5	35.9				
Max Q Clear Time (q_c+l1), s		6.6	4.7	18.0		19.9	14.5	20.9				
Green Ext Time (p_c), s	,	0.4	0.0	6.3		0.4	0.8	4.8				
Intersection Summary												
HCM 6th Ctrl Delay			31.0									
HCM 6th LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^	7	*	^	7	7	र्स	7		र्स	7
Traffic Volume (veh/h)	465	940	77	42	773	80	87	20	60	81	26	474
Future Volume (veh/h)	465	940	77	42	773	80	87	20	60	81	26	474
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	511	1044	68	56	878	68	132	0	50	108	37	90
Peak Hour Factor	0.91	0.90	0.77	0.75	0.88	0.81	0.75	0.88	0.71	0.75	0.71	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	557	2431	1084	391	2068	922	172	0	76	137	47	162
Arrive On Green	0.13	0.68	0.68	0.03	0.58	0.58	0.05	0.00	0.05	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1343	460	1585
Grp Volume(v), veh/h	511	1044	68	56	878	68	132	0	50	145	0	90
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1803	0	1585
Q Serve(g_s), s	14.6	17.7	1.9	1.7	18.5	2.5	4.9	0.0	4.2	10.6	0.0	7.3
Cycle Q Clear(g_c), s	14.6	17.7	1.9	1.7	18.5	2.5	4.9	0.0	4.2	10.6	0.0	7.3
Prop In Lane	1.00	17.7	1.00	1.00	10.5	1.00	1.00	0.0	1.00	0.74	0.0	1.00
Lane Grp Cap(c), veh/h	557	2431	1084	391	2068	922	172	0	76	184	0	162
V/C Ratio(X)	0.92	0.43	0.06	0.14	0.42	0.07	0.77	0.00	0.66	0.79	0.00	0.56
Avail Cap(c_a), veh/h	772	2431	1084	789	2068	922	172	0.00	76	621	0.00	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Upstream Filter(I)												
Uniform Delay (d), s/veh	15.4 12.6	9.5	7.0 0.1	10.4 0.2	15.7	12.3 0.2	63.5 27.7	0.0	63.1 36.3	59.2 7.3	0.0	57.7 3.0
Incr Delay (d2), s/veh		0.6			0.6			0.0			0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	6.8	0.7	0.7	7.6	0.9	2.9	0.0	2.5	5.2	0.0	3.1
Unsig. Movement Delay, s/veh		10.1	7.0	10 /	1/ 2	10 F	01.2	0.0	00 5	// [0.0	/07
LnGrp Delay(d),s/veh	28.0	10.1	7.2	10.6	16.3	12.5	91.2	0.0	99.5	66.5	0.0	60.7
LnGrp LOS	<u>C</u>	B	A	В	B	В	F	A	<u> </u>	<u>E</u>	A	<u>E</u>
Approach Vol, veh/h		1623			1002			182			235	
Approach Delay, s/veh		15.6			15.7			93.4			64.3	
Approach LOS		В			В			F			Е	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.9	96.8		18.3	22.7	83.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		6.5	34.5	29.5		46.5	34.5	29.5				
Max Q Clear Time (g_c+l1), s		6.9	3.7	19.7		12.6	16.6	20.5				
Green Ext Time (p_c), s		0.0	0.1	5.2		1.2	1.6	4.1				
Intersection Summary												
HCM 6th Ctrl Delay			24.1									
HCM 6th LOS			С									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^	7	*	^	7	*	4	7		र्भ	7
Traffic Volume (veh/h)	129	749	23	14	719	29	20	5	10	15	0	125
Future Volume (veh/h)	129	749	23	14	719	29	20	5	10	15	0	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	823	44	20	765	44	22	26	12	24	0	149
Peak Hour Factor	0.67	0.91	0.52	0.70	0.94	0.66	0.62	0.42	0.83	0.62	0.92	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	517	2458	1096	470	2382	1063	139	145	123	139	0	123
Arrive On Green	0.04	0.69	0.69	0.02	0.67	0.67	0.08	0.08	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	0	1585
Grp Volume(v), veh/h	193	823	44	20	765	44	22	26	12	24	0	149
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	4.7	12.5	1.2	0.5	12.2	1.3	1.6	1.8	0.9	1.7	0.0	10.5
Cycle Q Clear(g_c), s	4.7	12.5	1.2	0.5	12.2	1.3	1.6	1.8	0.9	1.7	0.0	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	517	2458	1096	470	2382	1063	139	145	123	139	0	123
V/C Ratio(X)	0.37	0.33	0.04	0.04	0.32	0.04	0.16	0.18	0.10	0.17	0.00	1.21
Avail Cap(c_a), veh/h	517	2458	1096	508	2382	1063	139	145	123	139	0	123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.0	8.4	6.6	6.9	9.3	7.5	58.1	58.2	57.8	58.2	0.0	62.3
Incr Delay (d2), s/veh	0.4	0.4	0.1	0.0	0.4	0.1	2.4	2.7	1.6	0.6	0.0	147.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.8	0.4	0.2	4.7	0.4	0.8	0.9	0.4	8.0	0.0	9.3
Unsig. Movement Delay, s/veh		0.7	/ 7	7.0	0.7	7 /	(0./	(0.0	FO 4	F0.0	0.0	200.0
LnGrp Delay(d),s/veh	7.5	8.7	6.7	7.0	9.7	7.6	60.6	60.9	59.4	58.8	0.0	209.9
LnGrp LOS	A	A	A	A	A	A	<u>E</u>	E	E	<u>E</u>	A	<u> </u>
Approach Vol, veh/h		1060			829			60			173	
Approach Delay, s/veh		8.4			9.5			60.5			188.9	
Approach LOS		Α			Α			E			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	7.1	97.9		15.0	10.0	95.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		10.5	5.5	90.5		10.5	5.5	90.5				
Max Q Clear Time (g_c+l1), s		3.8	2.5	14.5		12.5	6.7	14.2				
Green Ext Time (p_c), s		0.1	0.0	7.4		0.0	0.0	6.7				
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			С									
NI I												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	*	7	7	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	272	935	49	48	960	29	57	31	49	28	9	313
Future Volume (veh/h)	272	935	49	48	960	29	57	31	49	28	9	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	995	64	68	1000	40	50	56	68	56	12	234
Peak Hour Factor	0.93	0.94	0.77	0.71	0.96	0.72	0.89	0.86	0.72	0.50	0.75	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	1801	803	294	1547	690	267	281	238	231	49	247
Arrive On Green	0.11	0.51	0.51	0.04	0.44	0.44	0.15	0.15	0.15	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1479	317	1585
Grp Volume(v), veh/h	292	995	64	68	1000	40	50	56	68	68	0	234
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1796	0	1585
Q Serve(g_s), s	10.3	23.0	2.5	2.5	26.5	1.8	2.9	3.1	4.6	4.0	0.0	17.5
Cycle Q Clear(g_c), s	10.3	23.0	2.5	2.5	26.5	1.8	2.9	3.1	4.6	4.0	0.0	17.5
Prop In Lane	1.00	20.0	1.00	1.00	20.0	1.00	1.00	0.1	1.00	0.82	0.0	1.00
Lane Grp Cap(c), veh/h	370	1801	803	294	1547	690	267	281	238	280	0	247
V/C Ratio(X)	0.79	0.55	0.08	0.23	0.65	0.06	0.19	0.20	0.29	0.24	0.00	0.95
Avail Cap(c_a), veh/h	570	1801	803	339	1547	690	267	281	238	280	0.00	247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	20.3	15.2	18.3	26.6	19.6	44.6	44.7	45.3	44.4	0.0	50.2
Incr Delay (d2), s/veh	4.1	1.2	0.2	0.4	2.1	0.2	1.5	1.6	3.0	0.4	0.0	42.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	9.7	0.9	1.1	11.5	0.7	1.4	1.6	2.0	1.8	0.0	9.9
Unsig. Movement Delay, s/vel		7.1	0.7	1.1	11.5	0.7	1.7	1.0	2.0	1.0	0.0	7.7
LnGrp Delay(d),s/veh	25.1	21.5	15.4	18.7	28.7	19.8	46.1	46.3	48.3	44.9	0.0	93.0
LnGrp LOS	23.1 C	21.5 C	13.4 B	В	20.7 C	17.0 B	40.1 D	40.3 D	40.5 D	44.9 D	Α	73.0 F
		1351	D	ט	1108	<u> </u>	<u> </u>	174	U	<u> </u>	302	<u>'</u>
Approach Vol, veh/h												
Approach LOS		22.0			27.8			47.0			82.2	
Approach LOS		С			С			D			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	9.0	65.3		23.2	17.6	56.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.0	7.5	57.8		18.7	26.5	38.8				
Max Q Clear Time (g_c+l1), s		6.6	4.5	25.0		19.5	12.3	28.5				
Green Ext Time (p_c), s		0.4	0.0	8.9		0.0	0.7	5.1				
Intersection Summary												
HCM 6th Ctrl Delay			31.9									
HCM 6th LOS			С									
Notes												

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	*	7	M	^	7	7	ર્લ	7		4	7
Traffic Volume (veh/h)	402	1265	77	42	1041	42	87	14	60	45	20	413
Future Volume (veh/h)	402	1265	77	42	1041	42	87	14	60	45	20	413
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	442	1406	68	56	1183	21	127	0	50	60	28	16
Peak Hour Factor	0.91	0.90	0.77	0.75	0.88	0.81	0.75	0.88	0.71	0.75	0.71	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	2560	1142	304	2267	1011	172	0	76	81	38	104
Arrive On Green	0.11	0.72	0.72	0.03	0.64	0.64	0.05	0.00	0.05	0.07	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1233	575	1585
Grp Volume(v), veh/h	442	1406	68	56	1183	21	127	0	50	88	0	16
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1809	0	1585
Q Serve(g_s), s	12.6	24.7	1.7	1.4	24.4	0.7	4.8	0.0	4.2	6.5	0.0	1.3
Cycle Q Clear(g_c), s	12.6	24.7	1.7	1.4	24.4	0.7	4.8	0.0	4.2	6.5	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	470	2560	1142	304	2267	1011	172	0	76	119	0	104
V/C Ratio(X)	0.94	0.55	0.06	0.18	0.52	0.02	0.74	0.00	0.66	0.74	0.00	0.15
Avail Cap(c_a), veh/h	549	2560	1142	530	2267	1011	172	0	76	931	0	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	8.7	5.5	8.4	13.3	9.0	63.4	0.0	63.1	61.9	0.0	59.5
Incr Delay (d2), s/veh	22.5	0.9	0.1	0.3	0.9	0.0	24.7	0.0	36.3	8.8	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	9.1	0.6	0.6	9.8	0.2	2.7	0.0	2.5	3.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	9.6	5.6	8.7	14.1	9.0	88.1	0.0	99.5	70.7	0.0	60.2
LnGrp LOS	D	A	Α	Α	В	A	F	Α	F	E	Α	Е
Approach Vol, veh/h		1916			1260			177			104	
Approach Delay, s/veh		17.3			13.8			91.3			69.1	
Approach LOS		B			B			F			F	
			•			,	-					
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.9	101.8		13.4	20.0	90.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		6.5	21.5	19.5		69.5	21.5	19.5				
Max Q Clear Time (g_c+I1), s		6.8	3.4	26.7		8.5	14.6	26.4				
Green Ext Time (p_c), s		0.0	0.1	0.0		0.6	0.9	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			С									

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	7	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	175	749	23	14	719	57	20	10	10	42	4	170
Future Volume (veh/h)	175	749	23	14	719	57	20	10	10	42	4	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	823	44	20	765	86	28	30	12	68	4	184
Peak Hour Factor	0.67	0.91	0.52	0.70	0.94	0.66	0.62	0.42	0.83	0.62	0.92	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	502	2458	1096	470	2382	1063	99	104	88	169	10	159
Arrive On Green	0.04	0.69	0.69	0.02	0.67	0.67	0.06	0.06	0.06	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1687	99	1585
Grp Volume(v), veh/h	261	823	44	20	765	86	28	30	12	72	0	184
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1786	0	1585
Q Serve(g_s), s	5.5	12.5	1.2	0.5	12.2	2.6	2.0	2.1	1.0	5.1	0.0	13.5
Cycle Q Clear(g_c), s	5.5	12.5	1.2	0.5	12.2	2.6	2.0	2.1	1.0	5.1	0.0	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.94	0.0	1.00
Lane Grp Cap(c), veh/h	502	2458	1096	470	2382	1063	99	104	88	179	0	159
V/C Ratio(X)	0.52	0.33	0.04	0.04	0.32	0.08	0.28	0.29	0.14	0.40	0.00	1.16
Avail Cap(c_a), veh/h	502	2458	1096	508	2382	1063	99	104	88	179	0	159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.6	8.4	6.6	6.9	9.3	7.8	61.2	61.2	60.7	57.0	0.0	60.8
Incr Delay (d2), s/veh	1.0	0.4	0.1	0.0	0.4	0.1	7.0	6.9	3.2	1.5	0.0	121.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.8	0.4	0.2	4.7	0.9	1.1	1.2	0.5	2.4	0.0	10.8
Unsig. Movement Delay, s/vel		1.0	0.1	0.2	11.7	0.7	***	1.2	0.0	2.1	0.0	10.0
LnGrp Delay(d),s/veh	9.5	8.7	6.7	7.0	9.7	7.9	68.2	68.1	63.9	58.4	0.0	182.0
LnGrp LOS	Α.	A	Α	Α	Α.,	A	E	E	E	E	A	F
Approach Vol, veh/h		1128			871		<u> </u>	70		_ _	256	•
Approach Delay, s/veh		8.8			9.5			67.4			147.3	
Approach LOS		Α			7.5 A			67.4 E			147.5 E	
					A						'	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.0	7.1	97.9		18.0	10.0	95.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		7.5	5.5	90.5		13.5	5.5	90.5				
Max Q Clear Time (g_c+l1), s		4.1	2.5	14.5		15.5	7.5	14.2				
Green Ext Time (p_c), s		0.0	0.0	7.4		0.0	0.0	6.9				
Intersection Summary												
HCM 6th Ctrl Delay			26.1									
HCM 6th LOS			С									
Notos												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	*	^	7	7	र्स	7		र्स	7
Traffic Volume (veh/h)	310	935	49	48	960	52	57	35	49	49	13	349
Future Volume (veh/h)	310	935	49	48	960	52	57	35	49	49	13	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	995	64	68	1000	72	52	57	68	98	17	272
Peak Hour Factor	0.93	0.94	0.77	0.71	0.96	0.72	0.89	0.86	0.72	0.50	0.75	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	1825	814	299	1520	678	200	210	178	285	49	296
Arrive On Green	0.12	0.51	0.51	0.04	0.43	0.43	0.11	0.11	0.11	0.19	0.19	0.19
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1529	265	1585
Grp Volume(v), veh/h	333	995	64	68	1000	72	52	57	68	115	0	272
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1794	0	1585
Q Serve(g_s), s	11.9	22.7	2.5	2.5	26.9	3.3	3.2	3.3	4.8	6.7	0.0	20.2
Cycle Q Clear(g_c), s	11.9	22.7	2.5	2.5	26.9	3.3	3.2	3.3	4.8	6.7	0.0	20.2
Prop In Lane	1.00		1.00	1.00	20.7	1.00	1.00	0.0	1.00	0.85	0.0	1.00
Lane Grp Cap(c), veh/h	386	1825	814	299	1520	678	200	210	178	335	0	296
V/C Ratio(X)	0.86	0.55	0.08	0.23	0.66	0.11	0.26	0.27	0.38	0.34	0.00	0.92
Avail Cap(c_a), veh/h	561	1825	814	344	1520	678	200	210	178	347	0	306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	19.7	14.8	18.6	27.3	20.6	48.7	48.7	49.4	42.4	0.0	47.9
Incr Delay (d2), s/veh	9.2	1.2	0.2	0.4	2.2	0.3	3.1	3.1	6.1	0.6	0.0	30.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.5	0.9	1.1	11.7	1.3	1.6	1.8	2.2	3.0	0.0	10.5
Unsig. Movement Delay, s/ve		7.0	0.7	•••	1117	1.0	1.0	1.0	2,2	0.0	0.0	10.0
LnGrp Delay(d),s/veh	30.9	20.9	15.0	19.0	29.6	20.9	51.8	51.9	55.5	43.0	0.0	78.8
LnGrp LOS	C	C	В	В	C	C	D	D	55.5 E	D	A	70.0 E
Approach Vol, veh/h		1392			1140			177			387	
Approach Delay, s/veh		23.0			28.4			53.2			68.2	
Approach LOS		23.0 C			20.4 C			55.2 D			00.2 E	
					C						E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0	9.0	66.1		26.9	19.3	55.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		13.5	7.5	57.8		23.2	26.5	38.8				
Max Q Clear Time (g_c+l1), s	5	6.8	4.5	24.7		22.2	13.9	28.9				
Green Ext Time (p_c), s		0.3	0.0	9.0		0.2	0.8	5.0				
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			С									
Notos												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^	7	*	^	7	*	र्स	7		र्स	7
Traffic Volume (veh/h)	465	1265	77	42	1041	80	87	20	60	81	26	474
Future Volume (veh/h)	465	1265	77	42	1041	80	87	20	60	81	26	474
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	511	1406	35	56	1183	37	132	0	15	108	37	90
Peak Hour Factor	0.91	0.90	0.77	0.75	0.88	0.81	0.75	0.88	0.71	0.75	0.71	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	532	2430	1084	288	1845	823	172	0	76	137	47	162
Arrive On Green	0.20	0.68	0.68	0.03	0.52	0.52	0.05	0.00	0.05	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1343	460	1585
Grp Volume(v), veh/h	511	1406	35	56	1183	37	132	0	15	145	0	90
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1803	0	1585
Q Serve(g_s), s	24.4	27.9	1.0	2.0	32.4	1.6	4.9	0.0	1.2	10.6	0.0	7.3
Cycle Q Clear(g_c), s	24.4	27.9	1.0	2.0	32.4	1.6	4.9	0.0	1.2	10.6	0.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.74		1.00
Lane Grp Cap(c), veh/h	532	2430	1084	288	1845	823	172	0	76	184	0	162
V/C Ratio(X)	0.96	0.58	0.03	0.19	0.64	0.04	0.77	0.00	0.20	0.79	0.00	0.56
Avail Cap(c_a), veh/h	544	2430	1084	593	1845	823	172	0	76	821	0	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	11.2	6.9	14.1	23.4	16.0	63.5	0.0	61.7	59.2	0.0	57.7
Incr Delay (d2), s/veh	28.5	1.0	0.1	0.3	1.7	0.1	27.7	0.0	5.7	7.2	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.0	10.8	0.3	0.8	13.9	0.6	2.9	0.0	0.6	5.2	0.0	3.1
Unsig. Movement Delay, s/ve		10.0	0.0	0.0	10.7	0.0	2.,	0.0	0.0	0.2	0.0	0.1
LnGrp Delay(d),s/veh	59.9	12.2	7.0	14.5	25.1	16.1	91.2	0.0	67.4	66.4	0.0	60.6
LnGrp LOS	E	В	A	В	C	В	F	A	E	E	A	E
Approach Vol, veh/h		1952			1276		<u> </u>	147			235	
Approach Delay, s/veh		24.6			24.4			88.7			64.2	
Approach LOS		24.0 C			24.4 C			66.7 F			04.2 E	
					C							
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.9	96.8		18.3	31.1	74.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		6.5	27.5	21.5		61.5	27.5	21.5				
Max Q Clear Time (g_c+l1), s		6.9	4.0	29.9		12.6	26.4	34.4				
Green Ext Time (p_c), s		0.0	0.1	0.0		1.2	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			29.7									
HCM 6th LOS			С									
Notos												

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

APPENDIX E

Queueing Analysis Worksheets

	•	-	*	1	•	•	4	†	~	ļ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	193	593	44	20	551	44	22	22	12	24	149	
v/c Ratio	0.31	0.23	0.04	0.03	0.23	0.04	0.17	0.16	0.06	0.24	0.65	
Control Delay	5.8	7.2	0.2	4.4	8.7	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	5.8	7.2	0.2	4.4	8.7	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Length 50th (ft)	38	92	0	4	92	0	18	18	0	21	0	
Queue Length 95th (ft)	47	127	0	8	117	0	33	23	0	50	55	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	629	2549	1163	614	2396	1099	130	134	201	137	260	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.31	0.23	0.04	0.03	0.23	0.04	0.17	0.16	0.06	0.18	0.57	
Intersection Summary												

	•	-	*	1	-	•	4	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	292	717	64	68	721	40	49	51	68	68	329	
v/c Ratio	0.54	0.32	0.06	0.14	0.37	0.04	0.33	0.34	0.26	0.42	0.74	
Control Delay	10.7	11.9	1.1	7.7	17.0	0.1	58.2	58.0	2.4	57.7	16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.7	11.9	1.1	7.7	17.0	0.1	58.2	58.0	2.4	57.7	16.0	
Queue Length 50th (ft)	68	128	0	14	147	0	37	40	0	51	0	
Queue Length 95th (ft)	130	205	4	27	263	0	80	78	0	76	86	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	770	2229	1032	655	1969	941	147	152	262	269	518	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.32	0.06	0.10	0.37	0.04	0.33	0.34	0.26	0.25	0.64	
Intersection Summary												

	•	→	*	1	•	*	1	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	442	1013	100	56	852	52	66	66	85	88	504	
v/c Ratio	0.65	0.43	0.09	0.18	0.59	0.07	0.82	0.80	0.54	0.44	0.81	
Control Delay	21.8	12.5	3.5	11.7	32.8	1.8	123.3	118.7	25.6	60.7	15.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.8	12.5	3.5	11.7	32.8	1.8	123.3	118.7	25.6	60.7	15.6	
Queue Length 50th (ft)	172	197	4	11	263	0	61	61	0	75	3	
Queue Length 95th (ft)	351	347	23	28	393	4	#115	#149	27	90	52	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	676	2374	1089	498	1456	701	80	82	157	927	1057	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.65	0.43	0.09	0.11	0.59	0.07	0.82	0.80	0.54	0.09	0.48	

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

	•	-	7	1	-	•	1	†	-	Ţ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	193	611	44	20	568	44	22	22	12	24	149	
v/c Ratio	0.31	0.24	0.04	0.03	0.24	0.04	0.17	0.16	0.06	0.24	0.65	
Control Delay	5.9	7.3	0.2	4.4	8.8	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	5.9	7.3	0.2	4.4	8.8	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Length 50th (ft)	38	95	0	4	95	0	18	18	0	21	0	
Queue Length 95th (ft)	47	131	0	8	121	0	33	23	0	50	55	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	618	2549	1163	604	2396	1099	130	134	201	137	260	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.31	0.24	0.04	0.03	0.24	0.04	0.17	0.16	0.06	0.18	0.57	
Intersection Summary												

	•	→	*	1	•	•	4	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	292	738	64	68	743	40	49	51	68	68	329	
v/c Ratio	0.53	0.31	0.06	0.13	0.34	0.04	0.64	0.65	0.42	0.44	0.75	
Control Delay	8.3	9.2	0.8	5.6	12.7	0.1	90.9	91.2	12.8	59.7	16.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.3	9.2	0.8	5.6	12.7	0.1	90.9	91.2	12.8	59.7	16.8	
Queue Length 50th (ft)	56	116	0	11	132	0	40	42	0	51	0	
Queue Length 95th (ft)	103	177	3	21	224	0	#104	#100	5	78	89	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	877	2399	1103	939	2179	1011	77	79	163	230	490	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.33	0.31	0.06	0.07	0.34	0.04	0.64	0.65	0.42	0.30	0.67	

Intersection Summary

⁹⁵th percentile volume exceeds capacity, queue may be longer.

	•	-	7	1	-	*	1	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	442	1044	100	56	878	52	66	66	85	88	504	
v/c Ratio	0.66	0.44	0.09	0.19	0.60	0.07	0.82	0.80	0.54	0.44	0.81	
Control Delay	23.4	12.7	3.5	11.8	33.3	1.8	123.3	118.7	25.6	60.7	15.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.4	12.7	3.5	11.8	33.3	1.8	123.3	118.7	25.6	60.7	15.6	
Queue Length 50th (ft)	184	205	4	11	273	0	61	61	0	75	3	
Queue Length 95th (ft)	361	361	23	28	408	4	#115	#149	27	90	52	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	669	2374	1089	491	1456	701	80	82	157	927	1057	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.66	0.44	0.09	0.11	0.60	0.07	0.82	0.80	0.54	0.09	0.48	

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.

	•	-	*	1	•	•	4	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	261	611	44	20	568	86	28	28	12	72	202	
v/c Ratio	0.44	0.24	0.04	0.03	0.24	0.08	0.22	0.21	0.06	0.58	0.68	
Control Delay	8.0	7.8	0.2	4.6	9.0	1.6	62.8	62.3	0.6	79.3	19.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.0	7.8	0.2	4.6	9.0	1.6	62.8	62.3	0.6	79.3	19.7	
Queue Length 50th (ft)	61	104	0	4	95	0	25	24	0	62	0	
Queue Length 95th (ft)	62	131	0	8	121	6	40	27	0	115	59	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	599	2505	1145	590	2377	1091	130	136	201	138	309	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.44	0.24	0.04	0.03	0.24	0.08	0.22	0.21	0.06	0.52	0.65	
Intersection Summary												

	•	-	*	1	•	•	1	†	-	ļ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	333	738	64	68	743	72	52	53	68	115	367	
v/c Ratio	0.69	0.39	0.07	0.17	0.49	0.09	0.21	0.20	0.19	0.56	0.72	
Control Delay	19.5	18.0	1.5	12.9	28.3	0.2	47.1	46.9	1.2	59.5	13.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.5	18.0	1.5	12.9	28.3	0.2	47.1	46.9	1.2	59.5	13.5	
Queue Length 50th (ft)	113	175	0	20	212	0	37	37	0	85	0	
Queue Length 95th (ft)	191	251	4	34	339	0	77	75	0	114	90	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	566	1916	900	401	1522	758	253	263	354	334	595	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.59	0.39	0.07	0.17	0.49	0.09	0.21	0.20	0.19	0.34	0.62	
Intersection Summary												

	•	-	7	1	-	•	1	†	-	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	511	1044	100	56	878	99	68	71	85	145	578	
v/c Ratio	0.80	0.47	0.10	0.20	0.66	0.15	0.85	0.87	0.54	0.55	0.83	
Control Delay	35.1	15.7	4.3	16.3	39.5	7.8	128.1	130.3	25.6	59.1	17.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.1	15.7	4.3	16.3	39.5	7.8	128.1	130.3	25.6	59.1	17.1	
Queue Length 50th (ft)	287	234	5	13	323	0	63	66	0	121	31	
Queue Length 95th (ft)	459	405	25	32	#581	36	#122	#162	27	127	75	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	637	2240	1033	644	1332	657	80	82	157	618	898	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.80	0.47	0.10	0.09	0.66	0.15	0.85	0.87	0.54	0.23	0.64	

Intersection Summary

⁹⁵th percentile volume exceeds capacity, queue may be longer.

	•	→	*	1	•	*	4	†	1	ļ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	193	823	44	20	765	44	22	22	12	24	149	
v/c Ratio	0.38	0.32	0.04	0.04	0.32	0.04	0.17	0.16	0.06	0.24	0.65	
Control Delay	6.7	7.9	0.2	4.4	9.5	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	6.7	7.9	0.2	4.4	9.5	0.2	61.5	61.4	0.6	65.9	22.7	
Queue Length 50th (ft)	38	138	0	4	137	0	18	18	0	21	0	
Queue Length 95th (ft)	47	185	0	8	170	0	33	23	0	50	55	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	508	2549	1163	485	2396	1099	130	134	201	137	260	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.32	0.04	0.04	0.32	0.04	0.17	0.16	0.06	0.18	0.57	
Intersection Summary												

	•	-	7	1	-	•	1	†	-	Ţ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	292	995	64	68	1000	40	49	51	68	68	329	
v/c Ratio	0.70	0.50	0.07	0.21	0.62	0.05	0.19	0.20	0.19	0.42	0.74	
Control Delay	23.5	18.1	1.4	12.4	29.3	0.1	47.0	46.9	1.2	57.6	16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.5	18.1	1.4	12.4	29.3	0.1	47.0	46.9	1.2	57.6	16.0	
Queue Length 50th (ft)	87	237	0	17	298	0	35	36	0	51	0	
Queue Length 95th (ft)	201	350	4	33	#480	0	74	73	0	76	86	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	515	2005	938	336	1605	792	252	261	353	278	524	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.57	0.50	0.07	0.20	0.62	0.05	0.19	0.20	0.19	0.24	0.63	

Intersection Summary

⁹⁵th percentile volume exceeds capacity, queue may be longer.

	•	-	*	1	•	*	1	†	~	Ţ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	442	1406	100	56	1183	52	66	66	85	88	504	
v/c Ratio	0.76	0.59	0.09	0.24	0.81	0.07	0.82	0.80	0.54	0.44	0.81	
Control Delay	44.2	15.4	3.5	13.1	40.4	1.8	123.3	118.7	25.6	60.6	15.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	44.2	15.4	3.5	13.1	40.4	1.8	123.3	118.7	25.6	60.6	15.8	
Queue Length 50th (ft)	310	324	4	11	416	0	61	61	0	75	4	
Queue Length 95th (ft)	#513	563	23	28	#640	4	#115	#149	27	89	52	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	581	2373	1089	428	1455	701	80	82	157	927	1057	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.59	0.09	0.13	0.81	0.07	0.82	0.80	0.54	0.09	0.48	

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.

	•	-	*	1	•	*	1	†	-	Ţ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	261	823	44	20	765	86	28	28	12	72	202	
v/c Ratio	0.51	0.32	0.04	0.04	0.32	0.08	0.30	0.29	0.07	0.52	0.65	
Control Delay	9.0	8.0	0.2	4.5	9.5	1.6	70.0	69.2	0.8	72.8	18.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.0	8.0	0.2	4.5	9.5	1.6	70.0	69.2	0.8	72.8	18.0	
Queue Length 50th (ft)	55	141	0	4	137	0	25	25	0	62	0	
Queue Length 95th (ft)	62	185	0	8	170	6	41	28	0	112	58	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	508	2551	1164	487	2396	1099	93	97	168	177	340	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.32	0.04	0.04	0.32	0.08	0.30	0.29	0.07	0.41	0.59	
Intersection Summary												

	1	→	*	1	•	•	4	†	1	↓	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	333	995	64	68	1000	72	52	53	68	115	367	
v/c Ratio	0.74	0.49	0.07	0.20	0.64	0.09	0.28	0.27	0.23	0.56	0.72	
Control Delay	27.1	17.2	1.4	12.1	30.5	0.2	53.0	52.8	1.8	59.5	13.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.1	17.2	1.4	12.1	30.5	0.2	53.0	52.8	1.8	59.5	13.5	
Queue Length 50th (ft)	126	235	0	17	313	0	38	40	0	85	0	
Queue Length 95th (ft)	240	342	4	31	#480	0	81	80	0	114	90	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	519	2047	955	348	1570	777	189	196	298	345	602	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.64	0.49	0.07	0.20	0.64	0.09	0.28	0.27	0.23	0.33	0.61	

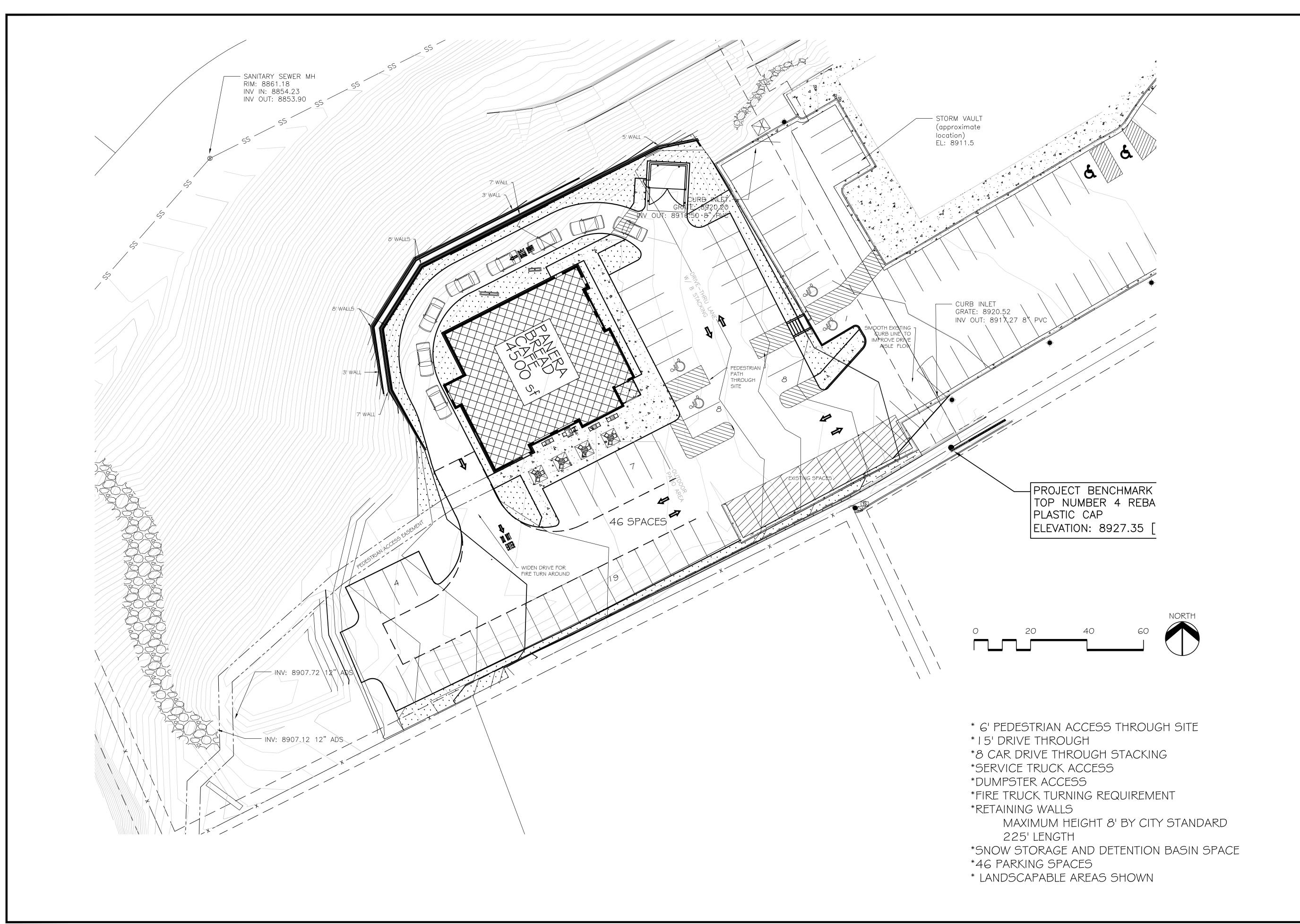
Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.

	•	→	*	1	•	*	1	†	1	↓	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	
Lane Group Flow (vph)	511	1406	100	56	1183	99	68	71	85	145	578	
v/c Ratio	0.76	0.63	0.10	0.27	1.04	0.17	0.85	0.87	0.54	0.54	0.83	
Control Delay	40.6	19.1	4.3	18.7	81.2	8.2	128.1	130.3	25.6	58.9	16.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	40.6	19.1	4.3	18.7	81.2	8.2	128.1	130.3	25.6	58.9	16.2	
Queue Length 50th (ft)	356	371	5	13	503	2	63	66	0	121	26	
Queue Length 95th (ft)	#552	631	26	32	#840	37	#122	#162	27	127	68	
Internal Link Dist (ft)		740			733			315		111		
Turn Bay Length (ft)	300		150	600		450	60		60		120	
Base Capacity (vph)	670	2238	1032	475	1138	574	80	82	157	818	1017	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.63	0.10	0.12	1.04	0.17	0.85	0.87	0.54	0.18	0.57	

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.

APPENDIX F

Conceptual Site Plan



DRAWN BY CR
CHECKED JP
JOB NO. 1821
DATE 8-16-2018
REVISIONS

PANERA

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PANERA

DILLON, COLORADO

CONCEPT SITE PLAN

SHEET NO.

1