EXHIBIT B

David Linehan

From: Justin Wortman <jwortman@oakpointe.com>
Sent: Monday, March 1, 2021 3:25 PM
To: Mona Davis
Subject: Black Diamond Comprehensive Plan Amendment -- Items for Docket
Attachments: BD Comprehensive Plan Amendment - SEPA Checklist.pdf; Comp Plan Amendment - SE Loop Connector Alternative.pdf; Master Permit Application_signed.pdf; Sensitive Area ID Form_signed.pdf; Comprehensive Plan Submittal.pdf

Mona,

Please find attached an application proposing an amendment for the docket for the Black Diamond Comprehensive Plan.

If you have any questions or need any additional information, please don't hesitate to ask.

Thanks,
Justin

Justin Wortman
Senior Project Manager

OAKPOINTE

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EXHIBIT B

OAKPOINTE

March 1, 2021

Mona Davis
Community Development Director
City of Black Diamond
Community Development Department
24301 Roberts Drive
P.O. Box 599
Black Diamond, WA 98010

RE: City of Black Diamond Comprehensive Plan Amendment – Items for Docket

Pursuant to Black Diamond Municipal Code 16.10.220, CCD Black Diamond Partners LLC ("Oakpointe" or "Master Developer") respectively suggests text and map amendments to the City of Black Diamond Comprehensive Plan to include an alternative Southeast Loop Connector. The rationale for this request is to include a Southeast Loop Connector alternative in order to provide optionality given potential environmental impacts, topography and extensive third-party parcel acquisition associated with the existing Southeast Loop Connector.

Attached to this letter is Oakpointe's submittal to meet the City's requirements for a comprehensive plan text and map amendment. It includes a project narrative, the purpose of the amendments, consistency with the comprehensive plan goals and policies, and consistency with the evaluation criteria for amendments. It also includes suggested text changes (in "bill" format) for three pages of the comprehensive plan, as well as one map change. A SEPA non-project action checklist is attached as well.

I appreciate your consideration of our suggested changes to the Black Diamond Comprehensive Plan.

Sincerely,

Brian Ross
CEO Oakpointe

3025 112th Ave NE SUITE 100
BELLEVUE, WA 98004
WWW.OAKPOINTE.COM

PROJECT NARRATIVE

The proposal is a Comprehensive Plan amendment that would allow an alternative route alignment to the SE Loop Connector and is identified as a future transportation improvement in the 2019 adopted Comprehensive Plan. As an alternative to the SE Loop Connector extending from the Lawson Hills MPD to SR 169, the SE Loop Connector Alternative would route the access road from the MPD to Lawson Street (see proposed map change). This request is an addition to the list of future road projects in Appendix 7, Table 0-9 (nothing is being deleted).

One parcel would be affected by this proposal: King County Parcel Number 1321069018. The address is 32317 Botts Drive. The owner is Palmer Coking Coal Co. LLP (contact information: P.O. Box 10, Black Diamond, Washington 98010). The parcel is 689,990 square feet in size. The existing land use zone is R4 - no concurrent zoning change is being requested. The legal description is:

PARCEL 4 CITY OF BLACK DIAMOND LOT LINE ADJUSTMENT NO PLN 19-0028 RECORDING NO 20190619900008 (BEING A PORTION OF NW QTR STR 13-21-06 AND NE QTR STR 14-21-06).

The proposal is for text and map amendments. The suggested changes to the Comprehensive Plan are in Appendix 7 (Transportation Appendix) for the plan sections titled Functional Classification System located on page A7-10; Transportation Improvement Recommendations on page 19 (*should be A7-19*); and Table 0-9 on page 25 (*should be A7-25*). A map amendment is suggested for Figure 7-4 on page 47 (*should be A7-47*). Attached are the relevant Comprehensive Plan text sections and figure with the suggested additions in "bill" format. Similarly, the suggested map change is shown in red.

PURPOSE OF THE AMENDMENT

The amendment is proposed because the alternative alignment likely involves fewer impacts, less cost, and reduced right-of-way acquisition requirements. It does not preclude development of the existing SE Loop Connector, but provides two options for a secondary access route to the Lawson Hills MPD. As stated in the Transportation Appendix on page A7-19 of the Transportation (emphasis added):

"The proposed roadways are to show the general route and connections of future roadways and are not specific to design level locations. ***Alternative roads and alignments may be considered.*** *The intent is to show a basic route, connections and concept and the exact locations will be determined after engineering and environmental review. These new roads will distribute future traffic growth throughout the City that would otherwise have been concentrated on the few existing major arterials."*

This proposal presents an alternative road alignment to be considered that will further the objective stated above. Some preliminary environmental and engineering work has been completed for this alternative, but in the future (when the road is needed) a decision can be made on the which option to construct.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

Comprehensive Plan Goals and Policies

Natural Environment Policy 17: Minimize areas of vegetation loss and grading disturbance to protect water quality and prevent erosion, when developing on moderate and highly erodible soils.

The SE Loop Connector Alternative would cross a relatively flat area and the alignment is not mapped as a landslide or erosion hazard area. Construction Best Management Practices to avoid or minimize erosion would be employed as part of the Temporary Erosion and Sediment Control Plan. This alternative results in minimal vegetation loss and grading (refer to the SEPA checklist).

Natural Environment Policy 35: Preserve existing natural trees and vegetation on steep hillsides, along stream banks and other habitat areas, and where visual buffers between uses or activities are desirable.

The SE Loop Connector Alternative avoids crossing steep hillsides thereby helping to preserve existing natural trees and vegetation on steep slopes.

Transportation Policy T-10 Pedestrians, Bicycles, and Transit Policy: Black Diamond recognizes the primacy of pedestrians and other non-motorized modes of mobility. The City shall lessen dependence upon and the influence of the automobile by encouraging complete streets and multi-modal travel for all users including pedestrians, bicyclists, and transit passengers of all ages and abilities. City actions will:

- **Require new roadways to incorporate pedestrian, bicycle and transit facilities including appropriately spaced crosswalks on arterials and collectors.**

  The SE Loop Connector Alternative would incorporate pedestrian and bicycle facilities into the road design.

Transportation Policy T-12 Transportation Health and Safety Policy: The City of Black Diamond will provide a transportation system that enhances the health and safety of residents by:

- **Expanding the sidewalk, bike lane, and multi-use path network in the city.**

  The SE Loop Connector Alternative would expand the sidewalk and bike lane network in the City.

Transportation Policy T-14 Character of the City Policy: Enhance the character that the City currently possesses by:

- **Encouraging landscaping, parkway trees, and compatible architecture in the design and construction of roadways, especially SR 169, and other facilities along selected corridors.**

  The SE Loop Connector Alternative would incorporate landscaping into the design of the roadway.

Transportation Policy T-15 Environmental Protection and Conservation Policy: Design transportation facilities within Black Diamond that minimizes adverse environmental impacts resulting from both their construction and operation. The City will fulfill this need by:

- **Aligning and locating transportation facilities away from environmentally sensitive areas**

  The SE Loop Connector Alternative would locate the right-of-way away from wetlands and steep slopes. The SE Loop Connector Alternative would cross Lawson Creek but would provide an opportunity for the elimination of the existing culvert under Botts Drive. This would be part of future studies concerning the implementation of the alternative.

- **Mitigating unavoidable environmental impacts**

  Under the SE Loop Connector Alternative there would be few environmental impacts due to the routing of the alignment. However, this alternative would cross Lawson Creek. A bridge crossing is proposed so that stream flow and fish passage are not impeded. Other mitigation as necessary would be incorporated into the design for any impacts that may occur in consultation with the City. This may include the elimination of the Botts Drive crossing of Lawson Creek and the removal of the existing culvert.

Economic Development Policy ED-4.1: Focus investment in infrastructure and services

Stormwater Policy U-22: Manage the quality of stormwater runoff to protect public health and safety, surface and groundwater quality, and the natural drainage systems.

The SE Loop Connector Alternative would provide stormwater runoff flow control and water quality treatment prior to discharge of runoff.

Stormwater Policy U-24: Design stormwater lines or pathways to minimize potential erosion and sedimentation, discourage significant vegetation clearing, and preserve the natural drainage systems such as rivers, streams, lakes, and wetlands.

The SE Loop Connector Alternative would provide stormwater flow control and water quality treatment. Outfall of treated stormwater runoff would be discharged to existing drainage systems in a manner consistent with the Department of Ecology's Stormwater Manual for Western Washington.

EVALUATION CRITERIA FOR PROPOSED AMENDMENTS (BDMC Chapter 16.10.220)

BDMC 16.10.220.A. All Amendments. All of the comprehensive plan amendments shall be reviewed under the following criteria:

1. Whether the proposed amendment(s) conform to the Growth Management Act (Chapter 36.70A RCW).

The proposal amendment is for an infrastructure improvement that supports development within the urban area of the City of Black Diamond. The GMA encourages development in urban areas where adequate public facilities exist to serve the development. The SE Loop

Connector Alternative would meet the goal of providing adequate infrastructure facilities for urban growth.

2. Whether the proposed amendment(s) are consistent with and implement the city's comprehensive plan, including the goals, policies, and implementation strategies of the various elements of the plan.

Consistency with the City's Comprehensive Plan is described above.

3. Whether circumstances related to the proposed amendment(s) and/or the area in which it is located have substantially changed since the adoption of the city's comprehensive plan.

4. Whether the assumptions upon which the city's comprehensive plan is based are no longer valid, or whether new information is available which was not considered during the adoption process or any annual amendments of the city's comprehensive plan.

Significant additional investigation and research has been done on the SE Loop Connector since it was originally included in the Comprehensive Plan. Given the considerable additional impacts and hurdles that have been discovered through this research, it became apparent that developing an alternative was a practical approach. The SE Loop Connector Alternative provides a more practical approach.

5. Whether the proposed amendment(s) reflects current, widely held values of the residents of the city.

The proposed amendment would likely be accepted by residents as a better alternative to the SE Loop Connector currently in the Comprehensive Plan. This would be due to fewer environmental impacts:

- The route does not bring traffic through an existing quiet neighborhood.
- Route does not cross as steep of slopes and significantly less cut and fill
- Less area of disturbance
- Does not require large retaining walls
- Acquisition of one parcel instead of 16 parcels
- Reduction in stormwater facility requirements (i.e., less pollution generating impervious surface)

B. Amendments for Site-Specific Proposals. In addition to the above, any proposal for a site-specific development or amendment shall be reviewed under the following criteria:

1. Whether the proposed site-specific amendment(s) meets concurrency requirements for transportation and does not adversely affect adopted level of service standards for other public facilities and services (e.g., police, fire and emergency medical services, parks, fire flow and general governmental services).

The proposal would not cause the level of service on the roadways to fall below the City standards. There would be a need for improvements at two intersections to maintain intersection level of service (see item A4 above).

2. Any proposed site-specific amendment(s) will not result in probable significant adverse impacts to the city's transportation network, capital facilities, utilities, parks and

environmental features that cannot be mitigated, and will not place uncompensated burdens upon existing or planned service capabilities.

Impacts from the SE Loop Connector Alternative can be fully mitigated, and development of this roadway would be funded by the proponent.

3. In the case of a site-specific amendment(s) to the comprehensive plan's land use map, that the subject parcels are physically suitable for the requested land use designation and the anticipated land use development, including, but not limited to, the following: (i) access; (ii) provision of utilities; and (iii) compatibility with existing and planned surrounding land uses.

The alignment would cross one parcel, which is suitable for development of the road (the road would cross the undeveloped portion of the parcel).

4. The proposed site-specific amendment(s) will not create pressure to change the land use designation of other properties, unless the change of land use designation for other properties is in the long-term best interests of the city as a whole.

The proposal would not change the land use designation of other properties.

5. The proposed site specific amendment(s) does not materially affect the land use and population growth projections that are the bases of the comprehensive plan.

The proposal itself does not affect land use or population growth but rather would be developed in support of growth at a time when the population of the Lawson Hills MPD would require additional access.

6. If within an incorporated urban growth area (UGA), the proposed site-specific amendment(s) does not materially affect the adequacy or availability of urban facilities and services to the immediate area and the overall UGA.

The proposal would not affect the adequacy of urban facilities or services. Instead, it would provide infrastructure that complements growth in the urban area.

7. The proposed amendment(s) is consistent with any applicable county-wide policies for the city and any other applicable inter-jurisdictional policies or agreements, and any other local, state or federal laws.

The proposal would be consistent with federal, state and local laws, regulations and policies. It would occur in compliance with a development agreement and MPD permit conditions of approval.

Suggested Comprehensive Plan Changes

Functional Classification System

Roadway classifications define the character of service that a street is intended to provide. The City has classified its roadway system and adopted roadway design standards based on the roadway's functional and physical characteristics. The functional classification system is a hierarchical system providing for the gradation of traffic flow from an access function to a movement function. The functional classification system for the City is described in **Table 0-4** and the accompanying roadway design standards are summarized in **Table 0-5.**

The following list provides the planned classifications by roadway.

Principal Arterials

- SR 169

Minor Arterials

- SE 288th Street
- Roberts Drive
- North Connector*
- North-South Connector*/Abrams Road
- Black Diamond-Ravensdale Road
- Lake Sawyer Road
- Pipeline Road*
- Lawson Connector*

Collectors

- Annexation Road*
- Southeast Loop Connector*
- Southeast Loop Connector Alternative*
- Morgan Street
- Baker Street (west of SR 169)
- South Connector*
- Railroad Avenue (Jones Lake Road)
- Lake Sawyer Extension* a

Local Access

All remaining roadways within the city are shown on Figure 7-1 and Table 0-4. These tables serve as only a general guide for the different classifications and the City's Road Design Standards should be reference for further clarification.

The short-term forecast coincides with the City's TIP and represents current growth trends and expected short term development within the city. Future levels and timing of land development were based on conversations with City staff, local landowners, and development firms. Changes to development patterns and priorities may vary the need for and the completion order of the transportation improvements. The long-term traffic forecast represents the future growth in housing, employment and background traffic that will produce the expected 2035 traffic projections. The City's Development Agreement with the Master Planned Development (MPD) Developer requires updates at the beginning and middles of the three phases of development so as to program the timing of transportation capacity adding projects to come online as needed.

Transportation Improvement Recommendations

This section of the transportation plan establishes intersection and roadway improvement programs for the periods 2015 to 2021 and 2022 to 2035.

Arterial and Collector Roadway Improvements

A conceptual configuration for the future roadway system in 2035 is shown in Figure 7-4. New arterial and collector roads include: Pipeline Road, Annexation Road, Lake Sawyer Extension, Lawson Connector, South Connector, Southeast Loop Connector or Southeast Loop Connector Alternative, and North Connector.

The proposed roadways are to show the general route and connections of future roadways and are not specific to design level locations. Alternative roads and alignments may be considered. The intent is to show a basic route, connections and concept and the exact locations will be determined after engineering and environmental review. These new roads will distribute future traffic growth throughout the City that would otherwise have been concentrated on the few existing major arterials.

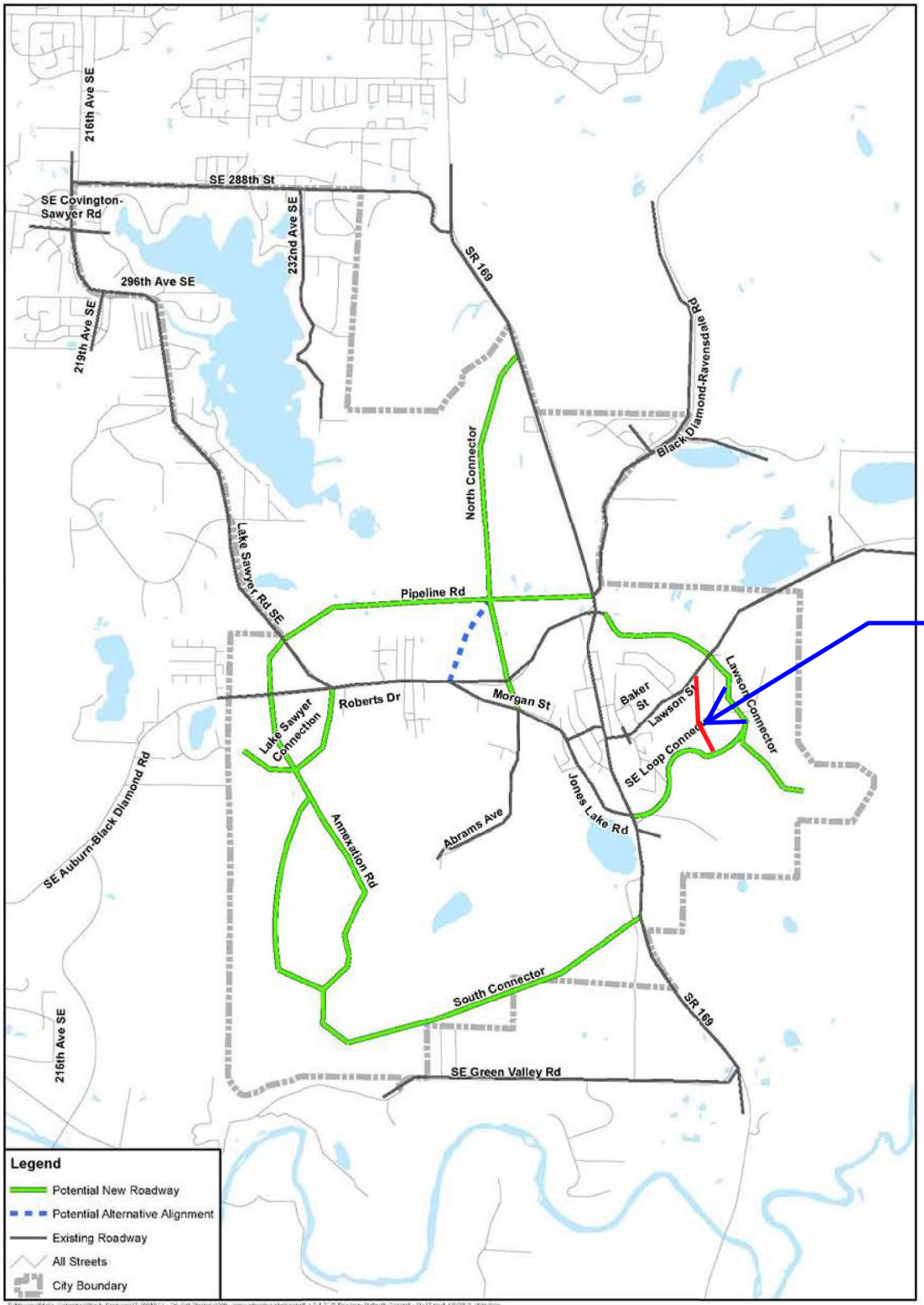
The Pipeline Road will provide an east / west alternative to Roberts Drive and will enhance the circulation and access for industrial development. The North Connector will provide a north / south alternative to SR 169 in the middle of the City. The Annexation Road would provide north-south and east-west circulation through the southwestern portion of the City's Expansion Area. Other new facilities are proposed to improve general circulation such as the Southeast Loop Connector. The Southeast Loop Connector Alternative is a functionally equivalent roadway alternative to the Southeast Loop Connector, both of which provide secondary access to the Lawson Hills MPD and improve general circulation through the City.

Agency Coordination

Improvements on SR 169 will require coordination with WSDOT. The City has adopted a Gateway Overlay District from the North City boundary to Roberts Drive regulating how development will occur along the roadway including separated meandering sidewalks within the front setbacks of the properties. The Comprehensive Plan should include a vision for SR 169 through the city. The City could use the vision to begin discussions with WSDOT to coordinate the future design of the road. Then as development occurs along the highway, improvements (such as lanes, sidewalks, bike lanes, median planting, turn pockets, driveways, and signals) could be implemented consistent with the overall design. The City will continue to participate in the implementation of or future updates to the SR 169 Route Development Plan (WSDOT, 2007) and as well as any other regional transportation planning efforts.

A8, South Connector	South Connector	A new east west collector in south Black Diamond connecting SR 169 to southwest Black Diamond	Within 7 to 20 years	$7,560,0 with Ci
A9, SE Loop connector	SE Loop Connector	Construct a new collector street from Lawson Hills MPD to SR 169 for a second connection	Within 7 to 20 years	$7,125,0 with Ci
SE Loop Connector Alternative	SE Loop Connector Alternative	Construct a new collector street from Lawson Hills MPD to Lawson Street for a second connection	Within 7 to 20 years	Future grant fu
Widen SR 169 From Roberts Drive to north City limits		Widen SR 169 to 4 lanes from Roberts Drive to north City limits.	Within 7 to 20 years	Future grant fu
SR 169 / RR Ave / SE Loop Connector	SR 169 / Jones Lake Road / SE Loop Connector	Signal or roundabout	Within 7 to 20 years	$630,00 City an
Lawson Street/SE Loop Connector Alternative	Lawson Street/SE Loop Connector Alternative	Lawson Street & SE Loop Connector Alternative Intersection	Within 7 to 20 years	Future grant fu
SE 288th Street & 232nd Ave SE		Channelization improvements	Within 7 to 20 years	Future grant fu
SR 169 / South Connector		Roundabout	Within 7 to 20 years	$630,00 City an
North Connector & Pipeline Road		Roundabout	Within 7 to 20 years	Future with Ci
North Connector & Roberts Drive		Roundabout or maybe a signal	Within 7 to 20 years	Future with Ci
SR 169 / Baker Street & SR 169/ Lawson Street	Intersection improvements for Lawson Street and Baker Street with SR 169.	One roundabout or two signals. Right of Way needed.	Within 7 to 20 years	$1,260,0
SE Auburn Black Diamond Road / Morgan Street	Roberts Drive & Morgan Street Intersection	Roundabout or maybe a Signal	Within 7 to 20 years	
SE 288th Street & 232nd Ave SE		Channelization Improvements.	Within 7 to 20 years	$630,00
North Connector & Pipeline Road		Roundabout	Within 7 to 20 years	

EXHIBIT B



BHC CONSULTANTS

GIS Base: City of Black Diamond & King County
Data sources supplied may not reflect current or actual conditions. This map is a geographic representation based on information available. It does not represent survey data. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.
BHC Consultants LLC., assumes no responsibility for the validity of any information presented hereon, nor any responsibility for the use or misuse of the data.

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2035 Roadway Network Concept
Comprehensive Plan Update
City of Black Diamond
April 2018

Figure 7-4

Additional Reference Material

MEMORANDUM

Date:	March 1, 2021	**TG:**	16450.00
To:	Andrew Williamson – City of Black Diamond		
From:	Mike Swenson, P.E., PTOE and Maris Fry, P.E. – Transpo Group		
cc:	Brian Ross and Justin Wortman – Oakpointe		
Subject:	Comprehensive Plan Amendment – SE Loop Connector Alternative		

This memorandum provides analysis evaluating the proposed inclusion of the SE Loop Connector Alternative in the City of Black Diamond's 2019 Comprehensive Plan. This memorandum includes the following information:

- Overview of the proposed Alternative
- Summary of pertinent EIS findings
- Operational impacts of the SE Loop Connector Alternative

As detailed below, this analysis determined that the worst-case impacts of the proposed SE Loop Connector Alternative could be sufficiently mitigated through the addition of turn lanes at the intersections of SR 169/Baker Street and SR 169/Lawson Street.

Alternative Overview

As shown in Figure 1, the Comprehensive Plan currently identifies the SE Loop Connector as a connection between the Lawson Connector and SR 169. The identified SE Loop Connector Alternative is shown in Figure 1.

The SE Loop Connector was analyzed in the *Lawson Hills Technical Transportation Report* (TTR), performed by Parametrix in 2009, which was used as the basis for the transportation-related EIS findings for the Lawson Hills MPD. To understand the worst-case impacts of the proposed SE Loop Connector Alternative, the volume projections outlined in the Lawson Hills TTR were updated assuming all traffic shifts from the SE Loop Connector to the Alternative. Based on the anticipated trip assignment and re-routing associated with the Alternative, volume and operations impacts were limited to the following intersections:

1. SR 169/Baker Street
2. SR 169/Lawson Street
3. SR 169/Jones Lake Road
4. Railroad Avenue/Baker Street

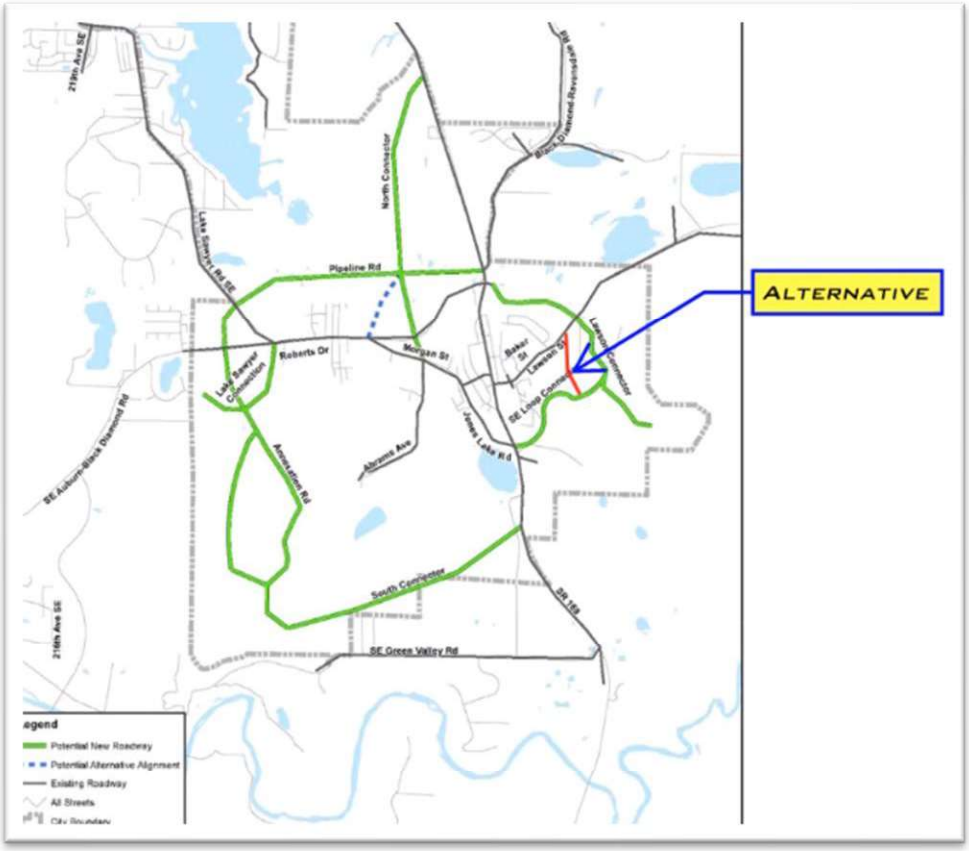


Figure 1: Proposed SE Loop Connector Alternative (Base Map Source: City of Black Diamond 2019 Comprehensive Plan)

Summary of Pertinent EIS Findings

The analysis contained within the Lawson Hills TTR developed traffic volume projections and defined impacts for the Lawson Hills MPD, as well as the collective impacts of the Lawson Hills and Ten Trails MPDs. Based on this analysis, the following mitigations were identified at the above study intersections for full build-out conditions of both MPDs. The channelization and traffic control for the intersections are also summarized in Figure 1.

- **SR 169/Baker Street**: Traffic signal and northbound left-turn lane
- **SR 169/Lawson Street**: Traffic signal and southbound left-turn lane
- **SR 169/Jones Lake Road**: Traffic signal and northbound, westbound, and southbound left-turn lanes
- **Railroad Avenue/Baker Street:** No mitigations necessary

Traffic Operations Analysis

To determine the worst-case impacts of the SE Loop Connector Alternative, traffic volume projections from the Lawson Hills TTR were revised to account for re-routed traffic. This analysis conservatively assumed that all traffic routed through the SE Loop Connector in the EIS is re-routed to Lawson Street. Figure 1 depicts the re-routed volumes and the adjusted full-build traffic volumes.

Using these adjusted volumes, intersection level of service (LOS) was evaluated at the study intersections. The channelization and traffic control associated with the EIS-identified mitigations were used as a baseline in order to determine if additional mitigations would be necessary. For the intersection of SR 169/Jones Lake Road, channelization and traffic control consistent with existing conditions was assumed to determine if introduction of the SE Loop Connector Alternative would result in mitigations no longer being necessary.

Weekday PM peak hour levels of service and delays were calculated at study intersections based on existing peak hour factors (PHFs) and methodologies contained in the *Highway Capacity Manual, 6th Edition* (Transportation Research Board). As shown in Table 1, the re-rerouted traffic volumes result in the need for additional improvements beyond those identified in the EIS at two intersections: SR 169/Baker Street and SR 169/Lawson Street. Additionally, mitigations are still required at the intersection of SR 169/Jones Lake Road.

In order to meet WSDOT's LOS D or better standard, additional southbound and eastbound right-turn lanes would be needed at SR 169/Baker Street and an additional westbound right-turn lane would be needed at SR 169/Lawson Street. Additionally, the traffic signal and northbound left-turn lane would need to remain at the intersection of SR 169/Jones Lake Road. Consistent with the EIS, no mitigations would be necessary at the intersection of Railroad Avenue/Baker Street. The mitigated channelization and traffic control assumptions are summarized in Figure 1. With these additional mitigations in place, the intersections are projected to operate at LOS D or better, as shown on Table 1.

Table 1. Traffic Analysis Summary – Removal of SE Loop Connector

Intersection	LOS Standard	Mitigated Traffic Control (EIS)			Mitigated Traffic Control (Removal of SE Loop Connector)		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. SR 169/Baker Street	D	F	129	-	D	53	-
2. SR 169/Lawson Street	D	F	170	-	D	48	-
3. SR 169/Jones Lake Road	D	F	53	EB	A	4	-
4. Railroad Avenue/Baker Street	C	B	12	WB	*No Change*		

Source: HCM 6th Edition and Transpo Group, 2020
1. Level of service (A – F) as defined by the Highway Capacity Manual (HCM) 6th Edition, Transportation Research Board
2. Average delay per vehicle in seconds
3. Worst movement (WM) reported for two-way stop sign traffic control

Conclusions

This analysis determined that the worst-case impacts of the SE Loop Connector Alternative can be adequately mitigated assuming the following:

- Implementation of additional improvements beyond those identified in the EIS at two intersections:
    - **SR 169/Baker Street**: New southbound and eastbound right-turn lanes
    - **SR 169/Lawson Street**: New westbound right-turn lane
- Implementation of limited improvements (construction of a traffic signal and northbound left-turn lane) at the intersection of **SR 169/Jones Lake Road**

Additionally, improvements would remain unnecessary at the intersection of Railroad Avenue/Baker Street.

	Weekday PM Peak Hour Traffic Volumes		Chan
	Re-Routed	With SE Loop Connector Alternative	
(1) SR 169/ Baker St	173 188	1,392 104 60 288 252 802	
(2) SR 169/ Lawson St	-57 230 299 132 117 -111	1,154 5 516 1 383 1 1 174 1 168 662	
(3) SR 169/ Jones Lake Rd	132 -57 -111 -173 -188 -132 -117 117	1,323 1 1 108 38 837	Singal was propo of intersection
(4) Railroad Ave/ Baker St	-173 173 188 -188	132 329 359 13 16 44	No change relati

Traffic Analysis in Support of SE Loop Connector Alternative

Comprehensive Plan Amendment

transpo

Attachment A:

LOS Worksheets

HCM 6th Signalized Intersection Summary
1: SR-169 & Baker St

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	288	252	802	1392	104
Future Volume (veh/h)	60	288	252	802	1392	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	297	260	827	1435	107
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	38	182	218	1502	1166	87
Arrive On Green	0.14	0.14	0.19	1.00	0.68	0.68
Sat Flow, veh/h	270	1291	1781	1870	1719	128
Grp Volume(v), veh/h	360	0	260	827	0	1542
Grp Sat Flow(s),veh/h/ln	1565	0	1781	1870	0	1847
Q Serve(g_s), s	22.5	0.0	15.5	0.0	0.0	108.5
Cycle Q Clear(g_c), s	22.5	0.0	15.5	0.0	0.0	108.5
Prop In Lane	0.17	0.82	1.00			0.07
Lane Grp Cap(c), veh/h	220	0	218	1502	0	1253
V/C Ratio(X)	1.64	0.00	1.20	0.55	0.00	1.23
Avail Cap(c_a), veh/h	220	0	218	1502	0	1253
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.13	0.13	0.00	1.00
Uniform Delay (d), s/veh	68.8	0.0	55.9	0.0	0.0	25.8
Incr Delay (d2), s/veh	305.7	0.0	93.9	0.2	0.0	111.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.7	0.0	13.3	0.1	0.0	83.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	374.5	0.0	149.8	0.2	0.0	136.8
LnGrp LOS	F	A	F	A	A	F
Approach Vol, veh/h	360			1087	1542	
Approach Delay, s/veh	374.5			36.0	136.8	
Approach LOS	F			D	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		133.0		27.0	20.0	113.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		128.5		22.5	15.5	108.5
Max Q Clear Time (g_c+I1), s		2.0		24.5	17.5	110.5
Green Ext Time (p_c), s		8.1		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	128.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
2: SSR-169/SR-169 & Lawson St

02/26/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
Future Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
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	1900	1900	1900	1900	1900	1900	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	1	1	1	179	0	395	1	682	173	532	1190	5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	6	6	6	2	2	2
Cap, veh/h	71	70	56	90	0	132	23	698	177	518	1526	6
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.50	0.50	0.50	0.58	1.00	1.00
Sat Flow, veh/h	332	569	450	485	0	1071	0	1393	353	1781	1861	8
Grp Volume(v), veh/h	3	0	0	574	0	0	856	0	0	532	0	1195
Grp Sat Flow(s),veh/h/ln	1351	0	0	1556	0	0	1747	0	0	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.0	19.6	0.0	0.0	7.6	0.0	0.0	46.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	19.8	0.0	0.0	76.7	0.0	0.0	46.5	0.0	0.0
Prop In Lane	0.33		0.33	0.31		0.69	0.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	197	0	0	222	0	0	898	0	0	518	0	1533
V/C Ratio(X)	0.02	0.00	0.00	2.59	0.00	0.00	0.95	0.00	0.00	1.03	0.00	0.78
Avail Cap(c_a), veh/h	197	0	0	222	0	0	898	0	0	518	0	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.00	0.09
Uniform Delay (d), s/veh	61.5	0.0	0.0	71.4	0.0	0.0	39.0	0.0	0.0	33.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	726.3	0.0	0.0	20.6	0.0	0.0	19.8	0.0	0.4
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	0.1	0.0	0.0	54.0	0.0	0.0	37.5	0.0	0.0	18.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	0.0	0.0	797.7	0.0	0.0	59.6	0.0	0.0	53.3	0.0	0.4
LnGrp LOS	E	A	A	F	A	A	E	A	A	F	A	A
Approach Vol, veh/h		3			574			856			1727	
Approach Delay, s/veh		61.6			797.7			59.6			16.7	
Approach LOS		E			F			E			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	51.0	84.7		24.3		135.7		24.3				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	46.5	80.2		19.8		131.2		19.8				
Max Q Clear Time (g_c+I1), s	48.5	78.7		2.2		2.0		21.8				
Green Ext Time (p_c), s	0.0	0.9		0.0		19.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	170.2	
HCM 6th LOS	F	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	108	38	837	1323	1
Future Vol, veh/h	0	108	38	837	1323	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	39	863	1364	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2306	1365	1365	0	-	0
Stage 1	1365	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	42	180	503	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	36	180	503	-	-	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	380	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	52.9	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	503	-	180	-	-
HCM Lane V/C Ratio	0.078	-	0.619	-	-
HCM Control Delay (s)	12.8	0	52.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.3	-	3.5	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	359	44	16	329	132
Future Vol, veh/h	13	359	44	16	329	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	370	45	16	339	136

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	867	53	0	0	61	0
Stage 1	53	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	323	1014	-	-	1542	-
Stage 1	970	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	1014	-	-	1542	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	332	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1542	-
HCM Lane V/C Ratio	-	-	0.42	0.22	-
HCM Control Delay (s)	-	-	11.8	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	2.1	0.8	-

HCM 6th Signalized Intersection Summary
1: SR-169 & Baker St

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	288	252	802	1392	104
Future Volume (veh/h)	60	288	252	802	1392	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1811	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	297	260	827	1435	107
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	2	2	2	2
Cap, veh/h	102	321	313	1655	1321	1119
Arrive On Green	0.06	0.06	0.20	1.00	0.71	0.71
Sat Flow, veh/h	1725	1535	1781	1870	1870	1585
Grp Volume(v), veh/h	62	297	260	827	1435	107
Grp Sat Flow(s),veh/h/ln	1725	1535	1781	1870	1870	1585
Q Serve(g_s), s	5.6	6.3	18.2	0.0	113.0	3.4
Cycle Q Clear(g_c), s	5.6	6.3	18.2	0.0	113.0	3.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	102	321	313	1655	1321	1119
V/C Ratio(X)	0.61	0.92	0.83	0.50	1.09	0.10
Avail Cap(c_a), veh/h	194	403	313	1655	1321	1119
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.46	0.46	1.00	1.00
Uniform Delay (d), s/veh	73.5	62.0	60.1	0.0	23.5	7.4
Incr Delay (d2), s/veh	5.7	23.7	8.6	0.5	51.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	17.5	10.5	0.2	64.7	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.2	85.7	68.7	0.5	75.2	7.6
LnGrp LOS	E	F	E	A	F	A
Approach Vol, veh/h	359			1087	1542	
Approach Delay, s/veh	84.6			16.8	70.5	
Approach LOS	F			B	E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		146.2		13.8	28.7	117.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		133.0		18.0	15.5	113.0
Max Q Clear Time (g_c+I1), s		2.0		8.3	20.2	115.0
Green Ext Time (p_c), s		8.1		0.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
2: SSR-169/SR-169 & Lawson St

02/26/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
Future Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
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	1900	1900	1900	1900	1900	1900	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	1	1	1	179	0	395	1	682	173	532	1190	5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	6	6	6	2	2	2
Cap, veh/h	30	29	15	133	0	667	23	698	177	518	1526	6
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.50	0.50	0.50	0.39	1.00	1.00
Sat Flow, veh/h	0	237	119	710	0	1610	0	1393	353	1781	1861	8
Grp Volume(v), veh/h	3	0	0	179	0	395	856	0	0	532	0	1195
Grp Sat Flow(s),veh/h/ln	356	0	0	710	0	1610	1747	0	0	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	19.8	7.6	0.0	0.0	46.5	0.0	0.0
Cycle Q Clear(g_c), s	19.8	0.0	0.0	19.8	0.0	19.8	76.7	0.0	0.0	46.5	0.0	0.0
Prop In Lane	0.33		0.33	1.00		1.00	0.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	74	0	0	133	0	667	898	0	0	518	0	1533
V/C Ratio(X)	0.04	0.00	0.00	1.35	0.00	0.59	0.95	0.00	0.00	1.03	0.00	0.78
Avail Cap(c_a), veh/h	74	0	0	133	0	667	898	0	0	518	0	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.12	0.00	0.12
Uniform Delay (d), s/veh	62.3	0.0	0.0	73.5	0.0	36.4	39.0	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	198.0	0.0	1.4	20.6	0.0	0.0	21.4	0.0	0.5
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	0.1	0.0	0.0	12.8	0.0	12.4	37.5	0.0	0.0	22.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	0.0	0.0	271.4	0.0	37.8	59.6	0.0	0.0	70.5	0.0	0.5
LnGrp LOS	E	A	A	F	A	D	E	A	A	F	A	A
Approach Vol, veh/h		3			574			856			1727	
Approach Delay, s/veh		62.5			110.6			59.6			22.1	
Approach LOS		E			F			E			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	51.0	84.7		24.3		135.7		24.3				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	46.5	80.2		19.8		131.2		19.8				
Max Q Clear Time (g_c+I1), s	48.5	78.7		21.8		2.0		21.8				
Green Ext Time (p_c), s	0.0	0.9		0.0		19.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
3: SR-169 & Railroad Ave

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	108	38	837	1323	1
Future Volume (veh/h)	1	108	38	837	1323	1
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	0	39	863	1364	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	2		334	1697	1696	1
Arrive On Green	0.00	0.00	0.91	0.91	0.91	0.91
Sat Flow, veh/h	912	0	398	1870	1869	1
Grp Volume(v), veh/h	2	0	39	863	0	1365
Grp Sat Flow(s),veh/h/ln	1825	0	398	1870	0	1870
Q Serve(g_s), s	0.1	0.0	3.7	7.9	0.0	25.1
Cycle Q Clear(g_c), s	0.1	0.0	28.8	7.9	0.0	25.1
Prop In Lane	0.50	0.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		334	1697	0	1697
V/C Ratio(X)	0.41		0.12	0.51	0.00	0.80
Avail Cap(c_a), veh/h	328		334	1697	0	1697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.8	0.0	6.5	0.8	0.0	1.6
Incr Delay (d2), s/veh	45.9	0.0	0.7	1.1	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	0.5	0.0	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	95.7	0.0	7.2	1.9	0.0	5.8
LnGrp LOS	F		A	A	A	A
Approach Vol, veh/h	2	A		902	1365	
Approach Delay, s/veh	95.7			2.1	5.8	
Approach LOS	F			A	A	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	95.2		4.8		95.2
Change Period (Y+Rc), s	4.5		4.5		4.5
Max Green Setting (Gmax), s	73.0		18.0		73.0
Max Q Clear Time (g_c+I1), s	30.8		2.1		27.1
Green Ext Time (p_c), s	9.4		0.0		23.7

Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

EXHIBIT B

CITY OF BLACK DIAMOND
PLANNING DIVISION
MASTER APPLICATION

OFFICE USE ONLY

FILE #	
APPL TYPE	
FEE PAID	

24301 Roberts Dr, PO Box 599 Black Diamond, WA 98010
Phone: (360)886-2560, Fax: (360)886-2592

NAME OF PROJECT/DEVELOPMENT:
Southeast Loop Connector Alternative Comprehensive Plan Amendment

ADDRESS/LOCATION OF PROPERTY:
Parcel No. 1321069018 (See attached plan set for additional information)

OWNER NAME	ADDRESS	
CCD Black Diamond Partners LLC	3025 112th Ave NE Suite 100 Bellevue, WA 98004	
EMAIL	PHONE	FAX
jwortman@oakpointe.com	(425) 898-2100	(425) 898-2139
APPLICANT NAME	ADDRESS	
CCD Black Diamond Partners LLC	3025 112th Ave NE Suite 100 Bellevue, WA 98004	
EMAIL	PHONE	FAX
jwortman@oakpointe.com	(425) 898-2100	(425) 898-2139
CONTACT NAME	ADDRESS	
Justin Wortman	3025 112th Ave NE Suite 100 Bellevue, WA 98004	
EMAIL	PHONE	FAX
jwortman@oakpointe.com	(425) 898-2100	(425) 898-2139

BRIEF DESCRIPTION OF PROJECT:

Comprehensive Plan Amendment and Rezone

PARCEL #: *Legal Description must be attached	1/4 SEC:	SEC:	TWN:	RANGE:
132106-9018; See attached legal description	NE	13	21	06
SIZE (ACRES/SQ FT): 48,600 sq ft	ZONING: MPD		COMP PLAN DESIGNATION: MPD Overlay	

EXISTING LAND USE: Vacant MPD

ADJACENT LAND USE:
NORTH: SFR
SOUTH: Vacant MPD/SFR
EAST: Vacant MPD/SFR
WEST: Vacant MPD

DOES THE SITE CONTAIN ANY OF THE FOLLOWING ENVIRONMENTALLY SENSITIVE AREAS? CHECK ALL THAT APPLY:

FLOOD HAZARD AREA ☐ LANDSLIDE HAZARD AREA ☐ SEISMIC HAZARD AREA ☐
COAL MINE HAZARD AREA ☐ STEEP SLOPE HAZARD ☐ WETLANDS ☒ STREAMS ☐

I certify under penalty of perjury, under the laws of the State of Washington, that the foregoing and attached exhibits are true and correct. I further certify that I am the owner of the property described above or authorized to act on behalf of the above interested parties.

OWNER

PRINT NAME See Attached
SIGNATURE

APPLICANT/AGENT

PRINT NAME See Attached
SIGNATURE

CHANGES TO APPROVED APPLICATIONS WILL CONSTITUTE A NEW APPLICATION AND WILL BE SUBJECT TO FULL APPLICATION FFES.

SOUTHEAST LOOP CONNECTOR ALTERNATIVE COMPREHENSIVE PLAN AMENDMENT
COMPREHENSIVE PLAN AMENDMENT AND REZONE
LEGAL DESCRIPTION

PARCEL 4 CITY OF BLACK DIAMOND LOT LINE ADJUSTMENT NO PLN 19-0028 RECORDING NO 20190619900008 (BEING A PORTION OF NW QTR STR 13-21-06 AND NE QTR STR 14-21-06).

CITY OF BLACK DIAMOND
COMPREHENSIVE PLAN AMENDMENT AND REZONE
SIGNATURE PAGE

Owner:

CCD Black Diamond Partners LLC, a Delaware limited liability company

By: Oakpointe LLC, its Manager

By: _____

Brian Ross, Manager

Date: 3/1/2021

Applicant:

CCD Black Diamond Partners LLC, a Delaware limited liability company

By: Oakpointe LLC, its Manager

By: _____

Brian Ross, Manager

Date: 3/1/2021

Purpose of Checklist: The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help the City of Black Diamond identify impacts from a proposal (and to reduce or avoid impacts from the proposal, if it can be done), and to help the City decide whether an EIS is required.

A. BACKGROUND

1. Name of proposed project, if applicable:

Comprehensive Plan Amendment Request – Southeast Loop Connector Alternative

2. Name of proponent:

CCD Black Diamond Partners LLC

3. Address and phone number of proponent and contact person:

Proponent:
CCD Black Diamond Partners LLC.

Contact:
Justin Wortman
CCD Black Diamond Partners LLC.
3025 112th Ave NE, Suite 100
Bellevue, WA 98004
(425) 898-2100

4. Date checklist prepared:

February 26, 2021

5. Agency requesting checklist:

City of Black Diamond

6. Proposed timing or schedule (including phasing, if applicable):

This proposal is for the 2021 Comprehensive Plan Amendment

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, please explain.

If the Southeast Loop Connector Alternative is ultimately included in the Black Diamond Comprehensive Plan, the alternative may in the future, subject to permitting requirements, be used as a secondary access to the Lawson Hills Master Planned Development (MPD).

8. Environmental information that has been prepared, or will be prepared, directly related to this proposal.

- Comprehensive Plan Amendment – SE Loop Connector Alternative Traffic Analysis, dated 3/1/21, by Transpo Group.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by this proposal.

Currently, there are no other applications pending for approval related to this proposal.

10. List any governmental approvals or permits that will be needed for your proposal, if known.

This amendment proposal will need to be approved by the City.

11. Description of the proposal including the proposed uses and the size of the project and site.

The proposal is for a Black Diamond Comprehensive Plan (Comp Plan) amendment that would include in the Comp Plan an alternative to the SE Loop Connector identified in the adopted Comprehensive Plan. The SE Loop Connector Alternative is located between the future MPD road and Lawson Street (see attached Comp Plan Map Change). Therefore, text amendments are proposed to the Comprehensive Plan's Transportation Appendix for the plan sections titled Functional Classification System located on page A7-10; the Transportation Improvement Recommendations on page 19; and Table 0-9 on page 25. A map amendment is proposed for Figure 7-4 on page 47. (**Note: This is an addition to the future road projects list and does not preclude the implementation of the SE Loop Connector.)**

See attached documents for proposed text and map changes (in strikeout and highlight):

- Functional Classification System - Comp Plan Text Change 1
- Transportation Improvement Recommendations - Comp Plan Text Change 2
- Table 0.9 - Comp Plan Text Change 3
- Figure 7-4 - Comp Plan Map Change 1.

12. Location of the proposal. Provide a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if available.

The SE Loop Connector Alternative would be located in Township 21N, Range 6E, Section 13 (See attached Figure 7-4).

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): flat and rolling, hilly, steep slopes, mountainous.

The land that the road segment would traverse is fairly flat.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope is approximately 6 percent.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Based on the USDA Natural Resource Conservation Service Soil Survey, the soil type is Beausite gravelly sandy loam. Since the site is located within an urban growth area it is not considered prime farmland.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There are no surface indications or history of unstable soils in the vicinity.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Grading would occur to construct the road, install temporary construction erosion controls, and permanent stormwater runoff facilities. The approximate cut and fill amounts for the road alternative itself are 650 cubic yards of cut and 2,600 cubic yards of fill.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Limited erosion could occur as a result of the initial construction on-site; however, temporary erosion and sedimentation control (TESC) measures would be utilized during the construction phase to minimize potential erosion impacts (see 1h below). Temporary erosion and sedimentation control plans must be submitted to and approved by the City of Black Diamond prior to any clearing or grading activity.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 21,600 square feet of impervious road surface would be created.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The site would be stabilized consistent with an approved temporary erosion and sedimentation control (TESC) plan in compliance with the then-applicable DOE Stormwater Management Manual for Western Washington as amended in 2014 and City of Black Diamond requirements (BDMC 15.28). Temporary erosion and sedimentation control plans must be submitted to and approved by the City of Black Diamond prior to any clearing or grading activity. Construction stormwater would be managed per the TESC Plan and Stormwater Pollution Prevention Plan (SWPPP) prior to being discharged.

The TESC would include the use of best management practices (BMPs), which could include all or a combination of the following:

1. Construction activity should be scheduled or phased as much as possible to avoid earthwork activity during the wet season.

2. The winter performance of a site is dependent on a well-conceived plan for control of site erosion and stormwater runoff. The site plan should include ground-cover measures and staging areas. The contractor should be prepared to implement and maintain the required measures to reduce the amount of exposed ground.

3. Temporary erosion and sedimentation control (TESC) elements and perimeter flow control should be established prior to the start of grading.

4. During the wetter months of the year, or when significant storm events are predicted during the summer months, the work area should be stabilized so that if showers occur, it can receive the rainfall without excessive erosion or sediment transport. The required measures for an area to be “buttoned-up” would depend on the time of year and the duration that the area would be left unworked. During the winter months, areas that are to be left unworked for more than 2 days should be mulched or covered with plastic. During the summer months, stabilization would usually consist of seal-rolling the subgrade. Such measures would aid in the contractor’s ability to get back into a work area after a storm event. The stabilization process also includes establishing temporary stormwater conveyance channels through work areas to route runoff to the approved treatment/discharge facilities.

5. All disturbed areas should be revegetated as soon as possible. If it is outside of the growing season, the disturbed areas should be covered with mulch. Straw mulch provides a cost-effective cover measure and can be made wind-resistant with the application of a tackifier after it is placed.

6. Surface runoff and discharge should be controlled during and following development. Uncontrolled discharge may promote erosion and sediment transport.

7. Soils that are to be reused around the site should be stored in such a manner as to reduce erosion from the stockpile. Protective measures may include, but are not limited to, covering stockpiles with plastic sheeting, or the use of silt fences around pile perimeters.

In addition to the approved TESC plan, the contractor would be monitored by the Washington State Department of Ecology under the National Pollutant Discharge Elimination System Permit (NPDES) General Stormwater Construction Permit. As part of the NPDES permit requirements, the contractor is required to keep a copy of the SWPPP on-site for reference. The SWPPP includes objectives to implement BMPs to minimize erosion and silt and sediment impacts from rainfall runoff during construction and to identify, reduce, eliminate, or prevent the pollution of stormwater, prevent violations of surface water quality, ground water quality, or sediment management standards, and prevent adverse water quality impacts during construction by controlling peak rates and volumes of stormwater runoff at the permittee's outfall and discharge locations. In addition, the contractor would provide a certified erosion control supervisor to be on site whenever earthwork or other activity that might result in turbid runoff is being performed.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

During project construction, heavy equipment operation and vehicles would generate exhaust emissions. Additionally, dust particulates generated primarily by construction equipment and construction activities would be produced during the construction phase of this project. During paving operations odors from asphalt would be detectible to some people near the project site. There would be long-term emissions from vehicles using the completed alternative route.

b. Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.

There are no known off-site sources of emissions or odors that would affect the road alternative.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

To minimize the potential adverse impacts from emissions resulting from construction activities, Best Management Practices (BMPs) would be implemented to ensure that minimal amounts of dust and exhaust fumes leave the preliminary plat site. BMP measures may include street cleaning/sweeping, wheel washing, and watering of the site as necessary to help control dust and other particulates; and minimizing vehicle and equipment idling to reduce exhaust emissions at the site.

3. Water

a. Surface:

1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

   Lawson Creek is located on the road alignment and the SE Loop Connector Alternative would cross the creek. No work would occur in the water. The alignment would pass one Category IV wetland and may slightly encroach on the wetland buffer.

2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   Work would occur within 200 feet of Lawson Creek. However, no work would take place in the water as the SE Loop Connector Alternative would cross Lawson Creek via a bridge.

3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   No fill or dredge material would be placed in or removed from surface water or wetlands.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities, if known.**

   The road alternative would not require any surface water withdrawals or diversions.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. If so, note location on the site plan.**

   The proposal would cross the 100-year floodplain. FEMA lists the area around Lawson Creek as an area of minimal flood hazard (Zone X).

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No waste materials would be discharged to surface waters.

b. **Ground:**

1) **Will groundwater be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

   No ground water would be withdrawn. Some stormwater would infiltrate into the ground and the remainder would be sent to a stormwater system.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals ..; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   No waste materials would be discharged into the ground.

c. **Water Run-off (including stormwater):**

1) **Describe the source of run-off (including stormwater) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Rainfall is the only source of runoff. Stormwater would be collected in roadside catch basins and directed into the stormwater control system that would be constructed as part of the Lawson Hills Master Planned Development. Some stormwater (not captured by the catch basins) would run off the road surface and infiltrate into the ground.

2) **Could waste materials enter ground or surface waters? If so, generally describe.**

Construction activities such as fueling, and equipment operation and maintenance can create the potential for spills or minor leaks of fuel, oil, hydraulic fluid or other material into the soil that could make their way into the groundwater. There would be potential for waste materials from the completed road surface to enter groundwater via stormwater runoff.

d. Proposed measures to reduce or control surface, ground, and run-off water impacts, if any:

A temporary erosion and control plan (TESC) and surface water pollution prevention plan (SWPPP) would be prepared for approval by the City of Black Diamond and Washington Department of Ecology (under the NPDES General Construction Stormwater permit) and implemented during construction. These plans contain BMPs for controlling surface and groundwater impacts during construction. See Section 1h above for more detail on the mitigation measures.

4. Plants

a. Check or circle types of vegetation found on the site:

__X__ **Deciduous trees:** Alder, maple, aspen, other bitter cherry, cascara
__X__ **Evergreen trees:** Fir, cedar, pine, other hemlock
__X__ **Shrubs**
__X__ **Grass**
__X__ **Pasture**
____ **Crop or grain**
____ **Wet Soil Plants:** Cattail, buttercup, bulrush, skunk cabbage, other
____ **Water Plants:** Water Lily, eelgrass, milfoil, other
____ **Other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

Only the areas within the clearing limits would have vegetation removed. Areas outside of the clearing limits would retain existing vegetation. Evergreen and deciduous trees and shrubs would be removed.

c. List threatened or endangered species known to be on or near the site.

There are no known threatened or endangered plant species on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The clearing limits would be delineated (using continuous flagging and orange barrier fencing) prior to clearing and grading to minimize vegetation removal.

5. Animals

a. Check or circle any birds and animals which have been observed on or near the site, or are known to be on or near the site:

__X__ **Birds**: *hawk*, heron, eagle, *songbirds*, other**:**
__X__ **Mammals:** *deer, bear*, *elk*, beaver, other**:**
__X__ **Fish:** bass, *salmon*, trout, herring, shellfish,
____ **Other:**

b. List any threatened or endangered species known to be on or near the site.

According the U.S. Fish and Wildlife's Information for Planning and Consultation (IPaC) database (accessed online) there are no critical habitats at this location and no known threatened, endangered, or priority species known to be on the site.

c. Is the site part of a migration route? If so, explain.

The project site lies within the migratory bird Pacific Flyway; however, the site is not known to contain critical habitat for migratory birds.

d. Proposed measures to preserve or enhance wildlife, if any:

No measures are proposed.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Energy in the form of diesel, gasoline and possibly electricity would be used during construction. Electricity would be used for lighting the roadway.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project will not affect the potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Limiting idling construction equipment would reduce the amount of fuel used during construction.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste, that could occur as a result of this proposal? If so, describe.

Construction equipment and activities such as fueling, and equipment operation (leaky equipment) and maintenance (leaky storage containers) can create the potential for spills or minor leaks of fuel, oil, hydraulic fluid or other material that could potentially pose a threat to environmental health. Project related construction activities and material handling/storage would meet all current local, county, state and federal regulations. The completed road would not result in any environmental health hazards.

1) Describe special emergency services that might be required.

No special emergency services would be needed.

2) **Proposed measures to reduce or control environmental health hazards, if any:**

State regulations regarding safety and the handling of hazardous materials would be enforced during the construction process. Equipment refueling areas would be located in areas where a spill could be quickly contained, and where the risk of the hazardous material entering ground water is minimized.

In order to reduce the risk of environmental health hazards during construction, the selected contractor would submit a Spill Prevention Control and Countermeasures Plan (SPCCP) with future permits. The SPCCP would include the handling of petroleum products and an emergency response procedure for any soil contaminated by a spill. The plan should include the use of fueling pads or berms located in areas where a spill could be quickly contained and where the risk of hazardous materials entering surface water is minimized, procedures to follow in case of spills, a maintenance plan to minimize leaky equipment, specify a staging area for vehicle maintenance, solid waste handling and disposal Best Management Practices (BMPs), and BMPs for any chemicals to be used or stored onsite during construction. State regulations regarding safety and the handling of hazardous materials will be followed during the construction process.

b. Noise

1) **What types of noise exist in the area, which may affect your project (for example: traffic, equipment operation, other)?**

There is no noise source that would affect the road project.

2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Construction equipment and activities would create impact and prolonged duration noise during the construction period, which would vary in intensity depending on the equipment in use and type of activity. Construction activities on the site would temporarily increase the peak on-site noise levels. Once completed, there would be noise produced by vehicles on the road.

3) **Proposed measures to reduce or control noise impacts, if any:**

Construction activity would be limited to hours and days as specified by the Lawson Hills MPD Development Agreement dated December 12, 2011.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The site is currently pastureland with one residence. Surrounding property is mostly residential or vacant, wooded property.

b. Has the site been used for agriculture? If so, describe.

Fields located on the site have recently been plowed.

c. Describe any structures on the site.

There is one residence on the property; however, the road alignment would not impact the house.

d. Will any structures be demolished? If so, what?

No structures would be demolished.

e. What is the current zoning classification of the site?

The current zoning is R-4 and MPD.

f. What is the current comprehensive plan designation of the site?

The comprehensive plan designation for the site is Low Density Residential and Master Planned Development. The current transportation improvement plan attached to the Comprehensive Plan identifies the SE Loop Connector.

g. If applicable, what is the current shoreline master program designation of the site?

There is no shoreline designation on the site.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

There is a Category IV wetland on the site and Lawson Creek, both are environmentally sensitive areas.

i. Approximately how many people would reside or work in the completed project?

Not applicable.

j. Approximately how many people would the completed project displace?

Not applicable.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposal will be reviewed for compatibility with the Comprehensive Plan by the Community Development Department as part of the amendment process.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Not applicable.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Lighting would be provided along the roadway and would be approximately 20 feet in height.

b. What views in the immediate vicinity would be altered or obstructed?

No views would be obstructed. There would be a slight alteration in views of the site due to the road surface.

c. Proposed measures to reduce or control aesthetic impacts, if any:

No measures are proposed.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Night lighting would be installed along the road for safety.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

There would be no light or glare that would be a safety hazard or interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?

There are no off-site sources of light or glare that would affect the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

No measures are proposed.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are several community parks in the vicinity of this site, including the Eagle Creek Community Park, Lake Sawyer Regional Park (undeveloped) and Ginder Creek Park (undeveloped). There are also a number of lakes in the general area including Lake Sawyer, Horseshoe Lake, Keevie Lake and Oak Lake that provide water-based recreational opportunities.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No existing authorized recreational uses would be displaced.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The road alternative would provide sidewalks for pedestrian and bicycle recreation. Sidewalks would be ADA compliant with curb ramps.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

There are no significant historic or cultural resources on the site.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known landmarks or evidence of historic, archaeological, scientific or cultural importance know to be on or next to the project site.

c. Proposed measures to reduce or control impacts, if any:

The project would comply with all applicable local, state and federal laws.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The SE Loop Connector Alternative would connect to Lawson Street and a not-yet-built portion of road.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by public transit. The nearest Metro Transit Route is 143/907 that runs on SR 169 and stops at the intersection with Baker Street.

c. How many parking spaces would the completed project have? How many would the project eliminate?

No parking spaces would be added or eliminated.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The project would not require new roads but would require a new intersection at Lawson Street.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project would not occur in the immediate vicinity of water, rail or air transportation

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Unknown at this time.

g. Proposed measures to reduce or control transportation impacts, if any:

During construction, workers and trucks with materials will travel to and from the site and could be timed to avoid peak traffic hours. For example, workers can arrive early in the morning before the AM peak hour and if possible, material trips can be scheduled to occur during off-peak hours. Flaggers, signage and barriers would be used to help general traffic avoid the construction zone. The contractor would be required to prepare and implement a traffic control plan during construction.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

During construction, there could be a slight increase in the potential demand for emergency medical services due to the operation of heavy construction equipment. The completed project would not result in an increase in the demand for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

No measures are proposed.

16. Utilities

a. Indicate utilities currently available at the site:

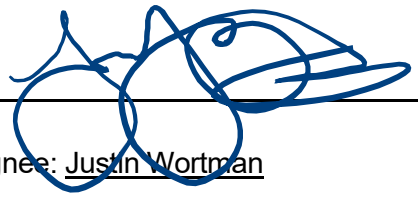
Electricity is available at the site.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Electricity would be used for lighting on the finished project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Name of signee: Justin Wortman

Position and Agency/Organization: Senior Project Manager, CCD Black Diamond Partners, LLC.

Date Submitted: February 26, 2021

A. Supplemental Sheet for Nonproject Actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

Construction of the proposal would cause temporary increases in diesel exhaust emissions from construction equipment and gasoline exhaust emissions from construction workers travelling to and from the site. During dry weather, construction earthwork may also result in dust generation. There would also be a temporary increase in construction noise. However, the construction period would be relatively short as compared to the SE Loop Connector, which would reduce the duration of construction-related impacts.

The proposal operation would result in stormwater runoff from the increase in impervious road surface, emissions to air from vehicle exhaust, and increased noise from vehicles moving on the road. There would be no release of toxic or hazardous substances.

Proposed measures to avoid or reduce such increases are:

The site will be stabilized consistent with an approved temporary erosion and sedimentation control (TESC) plan in compliance with the then-applicable DOE Stormwater Management Manual for Western Washington as amended in 2014 and City of Black Diamond requirements (BDMC 15.28). Temporary erosion and sedimentation control plans must be submitted to and approved by the City of Black Diamond prior to any clearing or grading activity. Construction stormwater will be managed per the TESC Plan and Stormwater Pollution Prevention Plan (SWPPP) prior to being discharged.

The TESC will include the use of best management practices (BMPs), which could include all or a combination of the following:

1. Construction activity should be scheduled or phased as much as possible to avoid earthwork activity during the wet season.

2. The winter performance of a site is dependent on a well-conceived plan for control of site erosion and stormwater runoff. The site plan should include ground-cover measures and staging areas. The contractor should be prepared to implement and maintain the required measures to reduce the amount of exposed ground.

3. Temporary erosion and sedimentation control (TESC) elements and perimeter flow control should be established prior to the start of grading.

4. During the wetter months of the year, or when significant storm events are predicted during the summer months, the work area should be stabilized so that if showers occur, it can receive the rainfall without excessive erosion or sediment transport. The required measures for an area to be "buttoned-up" will depend on the time of year and the duration that the area will be left unworked. During the winter months, areas that are to be left unworked for more than 2 days should be mulched or covered with plastic. During the summer months, stabilization will usually consist of seal-rolling the subgrade. Such measures will aid in the contractor's ability to get back into a work area after a storm event. The stabilization process also includes establishing temporary stormwater conveyance channels through work areas to route runoff to the approved treatment/discharge facilities.

5. All disturbed areas should be revegetated as soon as possible. If it is outside of the growing season, the disturbed areas should be covered with mulch. Straw mulch provides a cost-effective cover measure and can be made wind-resistant with the application of a tackifier after it is placed.

6. Surface runoff and discharge should be controlled during and following development. Uncontrolled discharge may promote erosion and sediment transport.

7. Soils that are to be reused around the site should be stored in such a manner as to reduce erosion from the stockpile. Protective measures may include, but are not limited to, covering stockpiles with plastic sheeting, or the use of silt fences around pile perimeters.

In addition to the approved TESC plan, the contractor will be monitored by the Washington State Department of Ecology under the National Pollutant Discharge Elimination System Permit (NPDES) General Stormwater Construction Permit. As part of the NPDES permit requirements, the contractor is required to keep a copy of the SWPPP on-site for reference. The SWPPP includes objectives to implement BMPs to minimize erosion and silt and sediment impacts from rainfall runoff during construction and to identify, reduce, eliminate, or prevent the pollution of stormwater, prevent violations of surface water quality, ground water quality, or sediment management standards, and prevent adverse water quality impacts during construction by controlling peak rates and volumes of stormwater runoff at the permittee's outfall and discharge locations. In addition, the contractor will provide a certified erosion control supervisor to be on site whenever earthwork or other activity that might result in turbid runoff is being performed.

To minimize the potential adverse impacts from emissions resulting from construction activities, Best Management Practices (BMPs) will be implemented to ensure that minimal amounts of dust and exhaust fumes leave the site. BMP measures may include the following: street cleaning/sweeping; wheel washing; installing stabilized rock construction entrances; watering of the site as necessary to help control dust and other particulates; covering trucks beds carrying soil material; and minimizing vehicle and equipment idling to reduce exhaust emissions at the site.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The proposal would have no effect on fish or marine life (stormwater would be treated prior to discharge). Only one parcel would be affected by the proposal and the route would not impact any wetlands or sensitive wildlife habitat on that property.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Stormwater would be treated prior to discharge into surface waters.

3. **How would the proposal be likely to deplete energy or natural resources?**

The proposal would use energy in the form of diesel, gasoline and possibly electricity during construction. Natural resources such as petroleum, aggregates (e.g., rock, sand, gravel), cement, and various metals (e.g., steel rebar) would be used in constructing the road and road elements (e.g., guard railings, light posts, walls, etc.).

Proposed measures to protect or conserve energy and natural resources are:

No measures are proposed.

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

There are no environmentally sensitive areas along the proposal right-of-way except for Lawson Creek. The proposal alignment would cross the creek (similar to the SE Loop Connector).

Proposed measures to protect such resources or to avoid or reduce impacts are:

A bridge would be constructed to span across the creek with bridge supports that are located outside the ordinary high water mark. In this way, creek flow and fish passage would not be impeded.

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

The proposal would not impact shoreline uses.

Proposed measures to avoid or reduce shoreline and land use impacts are:

No measures are proposed.

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

The proposal would not increase the demand for transportation or public services. There would be a slight increase in demand for electricity to operate lighting along the roadway for safety.

Proposed measures to reduce or respond to such demand(s) are:

The project itself would serve the demand for transportation circulation and access.

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

The proposal would not conflict with any local, state, or federal laws for protection of the environment.

EXHIBIT B

CITY OF BLACK DIAMOND
SENSITIVE AREA IDENTIFICATION FORM

This form identifies potential sensitive areas located on the subject property. This is a supplemental form to the sensitive area applications. Further study and or identification of sensitive areas may be required. Please complete the following information to the best of your ability.

Applicant: CCD Black Diamond Partners LLC	**Permit #:**
Parcel#: See attached legal	**Site Address:** Southeast Loop Connector Alternative
Sensitive Areas Identified: ☐ Geologic Hazard Area ☐ Erosion Hazard Area ☒ Wetlands ☐ Flood Zone ☐ Aquifer Recharge ☐ Stream Corridor ☐ To my knowledge there are no sensitive areas on my property.	
Comments: Comprehensive Plan Amendment	
Signature: See Attached	**Date:** 3/1/2021

~For Official Use Only~

Reports Completed or Required: ☐ Sensitive Area Report ☐ Wetland Delineation Report ☐ Geotechnical Report
Inspection Results: ☐ No Sensitive Areas Present ☐ Sensitive Areas Present, but No Impact ☐ Sensitive Areas may be affected by proposal
Summary of Findings:

Signature: Natural Resources Director	**Date:**

SOUTHEAST LOOP CONNECTOR ALTERNATIVE COMPREHENSIVE PLAN AMENDMENT
COMPREHENSIVE PLAN AMENDMENT AND REZONE
LEGAL DESCRIPTION

PARCEL 4 CITY OF BLACK DIAMOND LOT LINE ADJUSTMENT NO PLN 19-0028 RECORDING NO 20190619900008 (BEING A PORTION OF NW QTR STR 13-21-06 AND NE QTR STR 14-21-06).

EXHIBIT B

SOUTHEAST LOOP CONNECTOR ALTERNATIVE COMPREHENSIVE PLAN AMENDMENT
COMPREHENSIVE PLAN AMENDMENT AND REZONE
SENSITIVE AREA IDENTIFICATION FORM
SIGNATURE PAGE

Applicant:

CCD Black Diamond Partners LLC, a Delaware limited liability company

By: Oakpointe LLC, its Manager

By: _____

Brian Ross, Manager

Date: 3/1/2021

MEMORANDUM

Date:	March 1, 2021	**TG:**	16450.00
To:	Andrew Williamson – City of Black Diamond		
From:	Mike Swenson, P.E., PTOE and Maris Fry, P.E. – Transpo Group		
cc:	Brian Ross and Justin Wortman – Oakpointe		
Subject:	Comprehensive Plan Amendment – SE Loop Connector Alternative		

This memorandum provides analysis evaluating the proposed inclusion of the SE Loop Connector Alternative in the City of Black Diamond's 2019 Comprehensive Plan. This memorandum includes the following information:

- Overview of the proposed Alternative
- Summary of pertinent EIS findings
- Operational impacts of the SE Loop Connector Alternative

As detailed below, this analysis determined that the worst-case impacts of the proposed SE Loop Connector Alternative could be sufficiently mitigated through the addition of turn lanes at the intersections of SR 169/Baker Street and SR 169/Lawson Street.

Alternative Overview

As shown in Figure 1, the Comprehensive Plan currently identifies the SE Loop Connector as a connection between the Lawson Connector and SR 169. The identified SE Loop Connector Alternative is shown in Figure 1.

The SE Loop Connector was analyzed in the *Lawson Hills Technical Transportation Report* (TTR), performed by Parametrix in 2009, which was used as the basis for the transportation-related EIS findings for the Lawson Hills MPD. To understand the worst-case impacts of the proposed SE Loop Connector Alternative, the volume projections outlined in the Lawson Hills TTR were updated assuming all traffic shifts from the SE Loop Connector to the Alternative. Based on the anticipated trip assignment and re-routing associated with the Alternative, volume and operations impacts were limited to the following intersections:

1. SR 169/Baker Street
2. SR 169/Lawson Street
3. SR 169/Jones Lake Road
4. Railroad Avenue/Baker Street

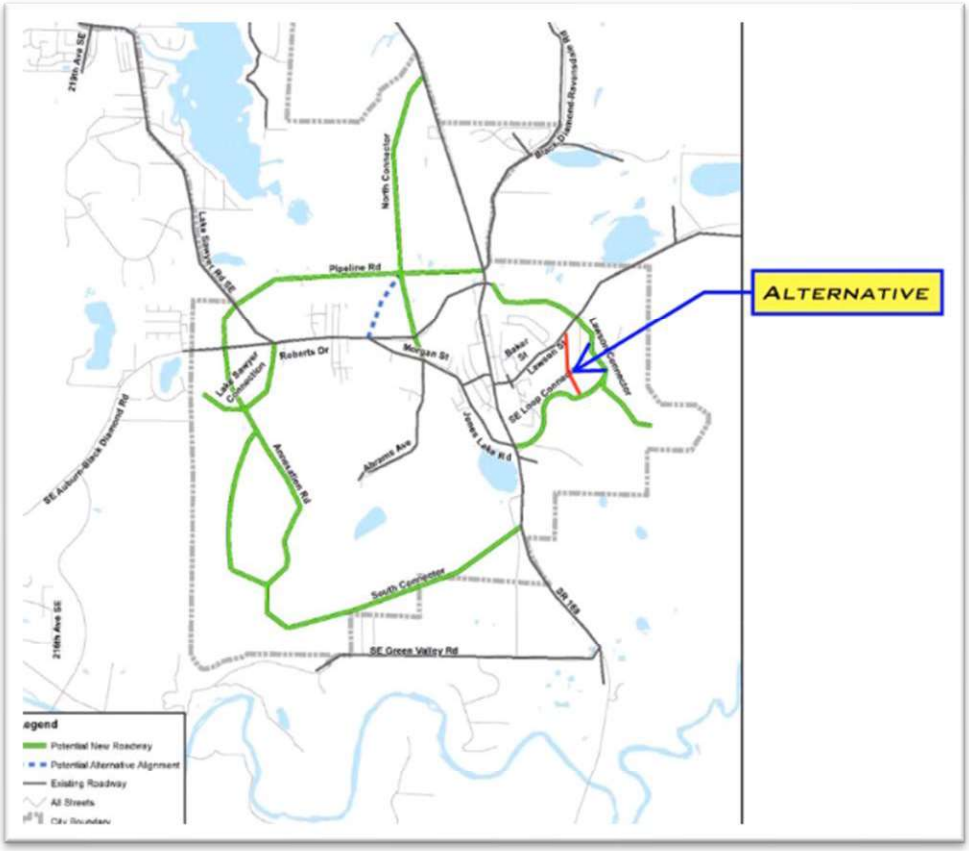


Figure 1: Proposed SE Loop Connector Alternative (Base Map Source: City of Black Diamond 2019 Comprehensive Plan)

Summary of Pertinent EIS Findings

The analysis contained within the Lawson Hills TTR developed traffic volume projections and defined impacts for the Lawson Hills MPD, as well as the collective impacts of the Lawson Hills and Ten Trails MPDs. Based on this analysis, the following mitigations were identified at the above study intersections for full build-out conditions of both MPDs. The channelization and traffic control for the intersections are also summarized in Figure 1.

- **SR 169/Baker Street**: Traffic signal and northbound left-turn lane
- **SR 169/Lawson Street**: Traffic signal and southbound left-turn lane
- **SR 169/Jones Lake Road**: Traffic signal and northbound, westbound, and southbound left-turn lanes
- **Railroad Avenue/Baker Street:** No mitigations necessary

Traffic Operations Analysis

To determine the worst-case impacts of the SE Loop Connector Alternative, traffic volume projections from the Lawson Hills TTR were revised to account for re-routed traffic. This analysis conservatively assumed that all traffic routed through the SE Loop Connector in the EIS is re-routed to Lawson Street. Figure 1 depicts the re-routed volumes and the adjusted full-build traffic volumes.

Using these adjusted volumes, intersection level of service (LOS) was evaluated at the study intersections. The channelization and traffic control associated with the EIS-identified mitigations were used as a baseline in order to determine if additional mitigations would be necessary. For the intersection of SR 169/Jones Lake Road, channelization and traffic control consistent with existing conditions was assumed to determine if introduction of the SE Loop Connector Alternative would result in mitigations no longer being necessary.

Weekday PM peak hour levels of service and delays were calculated at study intersections based on existing peak hour factors (PHFs) and methodologies contained in the *Highway Capacity Manual, 6th Edition* (Transportation Research Board). As shown in Table 1, the re-rerouted traffic volumes result in the need for additional improvements beyond those identified in the EIS at two intersections: SR 169/Baker Street and SR 169/Lawson Street. Additionally, mitigations are still required at the intersection of SR 169/Jones Lake Road.

In order to meet WSDOT's LOS D or better standard, additional southbound and eastbound right-turn lanes would be needed at SR 169/Baker Street and an additional westbound right-turn lane would be needed at SR 169/Lawson Street. Additionally, the traffic signal and northbound left-turn lane would need to remain at the intersection of SR 169/Jones Lake Road. Consistent with the EIS, no mitigations would be necessary at the intersection of Railroad Avenue/Baker Street. The mitigated channelization and traffic control assumptions are summarized in Figure 1. With these additional mitigations in place, the intersections are projected to operate at LOS D or better, as shown on Table 1.

Table 1. Traffic Analysis Summary – Removal of SE Loop Connector

Intersection	LOS Standard	Mitigated Traffic Control (EIS)			Mitigated Traffic Control (Removal of SE Loop Connector)		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. SR 169/Baker Street	D	F	129	-	D	53	-
2. SR 169/Lawson Street	D	F	170	-	D	48	-
3. SR 169/Jones Lake Road	D	F	53	EB	A	4	-
4. Railroad Avenue/Baker Street	C	B	12	WB	*No Change*		

Source: HCM 6th Edition and Transpo Group, 2020
1. Level of service (A – F) as defined by the Highway Capacity Manual (HCM) 6th Edition, Transportation Research Board
2. Average delay per vehicle in seconds
3. Worst movement (WM) reported for two-way stop sign traffic control

Conclusions

This analysis determined that the worst-case impacts of the SE Loop Connector Alternative can be adequately mitigated assuming the following:

- Implementation of additional improvements beyond those identified in the EIS at two intersections:
    - **SR 169/Baker Street**: New southbound and eastbound right-turn lanes
    - **SR 169/Lawson Street**: New westbound right-turn lane
- Implementation of limited improvements (construction of a traffic signal and northbound left-turn lane) at the intersection of **SR 169/Jones Lake Road**

Additionally, improvements would remain unnecessary at the intersection of Railroad Avenue/Baker Street.

	Weekday PM Peak Hour Traffic Volumes		Chan
	Re-Routed	With SE Loop Connector Alternative	
(1) SR 169/ Baker St	173 188	1,392 104 60 288 252 802	
(2) SR 169/ Lawson St	-57 230 299 132 117 -111	1,154 5 516 1 383 1 1 174 1 168 662	
(3) SR 169/ Jones Lake Rd	132 -57 -111 -173 -188 -132 -117 117	1,323 1 1 108 38 837	Singal was propo of intersection
(4) Railroad Ave/ Baker St	-173 173 188 -188	132 329 359 13 16 44	No change relati

Traffic Analysis in Support of SE Loop Connector Alternative

Comprehensive Plan Amendment

transpo

Attachment A:

LOS Worksheets

HCM 6th Signalized Intersection Summary
1: SR-169 & Baker St

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	288	252	802	1392	104
Future Volume (veh/h)	60	288	252	802	1392	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	297	260	827	1435	107
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	38	182	218	1502	1166	87
Arrive On Green	0.14	0.14	0.19	1.00	0.68	0.68
Sat Flow, veh/h	270	1291	1781	1870	1719	128
Grp Volume(v), veh/h	360	0	260	827	0	1542
Grp Sat Flow(s),veh/h/ln	1565	0	1781	1870	0	1847
Q Serve(g_s), s	22.5	0.0	15.5	0.0	0.0	108.5
Cycle Q Clear(g_c), s	22.5	0.0	15.5	0.0	0.0	108.5
Prop In Lane	0.17	0.82	1.00			0.07
Lane Grp Cap(c), veh/h	220	0	218	1502	0	1253
V/C Ratio(X)	1.64	0.00	1.20	0.55	0.00	1.23
Avail Cap(c_a), veh/h	220	0	218	1502	0	1253
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.13	0.13	0.00	1.00
Uniform Delay (d), s/veh	68.8	0.0	55.9	0.0	0.0	25.8
Incr Delay (d2), s/veh	305.7	0.0	93.9	0.2	0.0	111.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.7	0.0	13.3	0.1	0.0	83.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	374.5	0.0	149.8	0.2	0.0	136.8
LnGrp LOS	F	A	F	A	A	F
Approach Vol, veh/h	360			1087	1542	
Approach Delay, s/veh	374.5			36.0	136.8	
Approach LOS	F			D	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		133.0		27.0	20.0	113.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		128.5		22.5	15.5	108.5
Max Q Clear Time (g_c+I1), s		2.0		24.5	17.5	110.5
Green Ext Time (p_c), s		8.1		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	128.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
2: SSR-169/SR-169 & Lawson St

02/26/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
Future Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
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	1900	1900	1900	1900	1900	1900	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	1	1	1	179	0	395	1	682	173	532	1190	5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	6	6	6	2	2	2
Cap, veh/h	71	70	56	90	0	132	23	698	177	518	1526	6
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.50	0.50	0.50	0.58	1.00	1.00
Sat Flow, veh/h	332	569	450	485	0	1071	0	1393	353	1781	1861	8
Grp Volume(v), veh/h	3	0	0	574	0	0	856	0	0	532	0	1195
Grp Sat Flow(s),veh/h/ln	1351	0	0	1556	0	0	1747	0	0	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.0	19.6	0.0	0.0	7.6	0.0	0.0	46.5	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	19.8	0.0	0.0	76.7	0.0	0.0	46.5	0.0	0.0
Prop In Lane	0.33		0.33	0.31		0.69	0.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	197	0	0	222	0	0	898	0	0	518	0	1533
V/C Ratio(X)	0.02	0.00	0.00	2.59	0.00	0.00	0.95	0.00	0.00	1.03	0.00	0.78
Avail Cap(c_a), veh/h	197	0	0	222	0	0	898	0	0	518	0	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.00	0.09
Uniform Delay (d), s/veh	61.5	0.0	0.0	71.4	0.0	0.0	39.0	0.0	0.0	33.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	726.3	0.0	0.0	20.6	0.0	0.0	19.8	0.0	0.4
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	0.1	0.0	0.0	54.0	0.0	0.0	37.5	0.0	0.0	18.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	0.0	0.0	797.7	0.0	0.0	59.6	0.0	0.0	53.3	0.0	0.4
LnGrp LOS	E	A	A	F	A	A	E	A	A	F	A	A
Approach Vol, veh/h		3			574			856			1727	
Approach Delay, s/veh		61.6			797.7			59.6			16.7	
Approach LOS		E			F			E			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	51.0	84.7		24.3		135.7		24.3				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	46.5	80.2		19.8		131.2		19.8				
Max Q Clear Time (g_c+I1), s	48.5	78.7		2.2		2.0		21.8				
Green Ext Time (p_c), s	0.0	0.9		0.0		19.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	170.2	
HCM 6th LOS	F	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	108	38	837	1323	1
Future Vol, veh/h	0	108	38	837	1323	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	39	863	1364	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2306	1365	1365	0	-	0
Stage 1	1365	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	42	180	503	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	36	180	503	-	-	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	380	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	52.9	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	503	-	180	-	-
HCM Lane V/C Ratio	0.078	-	0.619	-	-
HCM Control Delay (s)	12.8	0	52.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.3	-	3.5	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	359	44	16	329	132
Future Vol, veh/h	13	359	44	16	329	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	370	45	16	339	136

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	867	53	0	0	61	0
Stage 1	53	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	323	1014	-	-	1542	-
Stage 1	970	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	1014	-	-	1542	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	332	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1542	-
HCM Lane V/C Ratio	-	-	0.42	0.22	-
HCM Control Delay (s)	-	-	11.8	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	2.1	0.8	-

HCM 6th Signalized Intersection Summary
1: SR-169 & Baker St

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	288	252	802	1392	104
Future Volume (veh/h)	60	288	252	802	1392	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1811	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	297	260	827	1435	107
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	2	2	2	2
Cap, veh/h	102	321	313	1655	1321	1119
Arrive On Green	0.06	0.06	0.20	1.00	0.71	0.71
Sat Flow, veh/h	1725	1535	1781	1870	1870	1585
Grp Volume(v), veh/h	62	297	260	827	1435	107
Grp Sat Flow(s),veh/h/ln	1725	1535	1781	1870	1870	1585
Q Serve(g_s), s	5.6	6.3	18.2	0.0	113.0	3.4
Cycle Q Clear(g_c), s	5.6	6.3	18.2	0.0	113.0	3.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	102	321	313	1655	1321	1119
V/C Ratio(X)	0.61	0.92	0.83	0.50	1.09	0.10
Avail Cap(c_a), veh/h	194	403	313	1655	1321	1119
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.46	0.46	1.00	1.00
Uniform Delay (d), s/veh	73.5	62.0	60.1	0.0	23.5	7.4
Incr Delay (d2), s/veh	5.7	23.7	8.6	0.5	51.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	17.5	10.5	0.2	64.7	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.2	85.7	68.7	0.5	75.2	7.6
LnGrp LOS	E	F	E	A	F	A
Approach Vol, veh/h	359			1087	1542	
Approach Delay, s/veh	84.6			16.8	70.5	
Approach LOS	F			B	E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		146.2		13.8	28.7	117.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		133.0		18.0	15.5	113.0
Max Q Clear Time (g_c+I1), s		2.0		8.3	20.2	115.0
Green Ext Time (p_c), s		8.1		0.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
2: SSR-169/SR-169 & Lawson St

02/26/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
Future Volume (veh/h)	1	1	1	174	0	383	1	662	168	516	1154	5
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	1900	1900	1900	1900	1900	1900	1811	1811	1811	1870	1870	1870
Adj Flow Rate, veh/h	1	1	1	179	0	395	1	682	173	532	1190	5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	6	6	6	2	2	2
Cap, veh/h	30	29	15	133	0	667	23	698	177	518	1526	6
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.50	0.50	0.50	0.39	1.00	1.00
Sat Flow, veh/h	0	237	119	710	0	1610	0	1393	353	1781	1861	8
Grp Volume(v), veh/h	3	0	0	179	0	395	856	0	0	532	0	1195
Grp Sat Flow(s),veh/h/ln	356	0	0	710	0	1610	1747	0	0	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	19.8	7.6	0.0	0.0	46.5	0.0	0.0
Cycle Q Clear(g_c), s	19.8	0.0	0.0	19.8	0.0	19.8	76.7	0.0	0.0	46.5	0.0	0.0
Prop In Lane	0.33		0.33	1.00		1.00	0.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	74	0	0	133	0	667	898	0	0	518	0	1533
V/C Ratio(X)	0.04	0.00	0.00	1.35	0.00	0.59	0.95	0.00	0.00	1.03	0.00	0.78
Avail Cap(c_a), veh/h	74	0	0	133	0	667	898	0	0	518	0	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.12	0.00	0.12
Uniform Delay (d), s/veh	62.3	0.0	0.0	73.5	0.0	36.4	39.0	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	198.0	0.0	1.4	20.6	0.0	0.0	21.4	0.0	0.5
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	0.1	0.0	0.0	12.8	0.0	12.4	37.5	0.0	0.0	22.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	0.0	0.0	271.4	0.0	37.8	59.6	0.0	0.0	70.5	0.0	0.5
LnGrp LOS	E	A	A	F	A	D	E	A	A	F	A	A
Approach Vol, veh/h		3			574			856			1727	
Approach Delay, s/veh		62.5			110.6			59.6			22.1	
Approach LOS		E			F			E			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	51.0	84.7		24.3		135.7		24.3				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	46.5	80.2		19.8		131.2		19.8				
Max Q Clear Time (g_c+I1), s	48.5	78.7		21.8		2.0		21.8				
Green Ext Time (p_c), s	0.0	0.9		0.0		19.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
3: SR-169 & Railroad Ave

02/26/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	108	38	837	1323	1
Future Volume (veh/h)	1	108	38	837	1323	1
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	0	39	863	1364	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	2		334	1697	1696	1
Arrive On Green	0.00	0.00	0.91	0.91	0.91	0.91
Sat Flow, veh/h	912	0	398	1870	1869	1
Grp Volume(v), veh/h	2	0	39	863	0	1365
Grp Sat Flow(s),veh/h/ln	1825	0	398	1870	0	1870
Q Serve(g_s), s	0.1	0.0	3.7	7.9	0.0	25.1
Cycle Q Clear(g_c), s	0.1	0.0	28.8	7.9	0.0	25.1
Prop In Lane	0.50	0.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		334	1697	0	1697
V/C Ratio(X)	0.41		0.12	0.51	0.00	0.80
Avail Cap(c_a), veh/h	328		334	1697	0	1697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.8	0.0	6.5	0.8	0.0	1.6
Incr Delay (d2), s/veh	45.9	0.0	0.7	1.1	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	0.5	0.0	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	95.7	0.0	7.2	1.9	0.0	5.8
LnGrp LOS	F		A	A	A	A
Approach Vol, veh/h	2	A		902	1365	
Approach Delay, s/veh	95.7			2.1	5.8	
Approach LOS	F			A	A	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	95.2		4.8		95.2
Change Period (Y+Rc), s	4.5		4.5		4.5
Max Green Setting (Gmax), s	73.0		18.0		73.0
Max Q Clear Time (g_c+I1), s	30.8		2.1		27.1
Green Ext Time (p_c), s	9.4		0.0		23.7

Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.