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September 5, 2014

Libby Grage  
Planning, Community & Economic Development Department  
City of Anacortes  
P.O. Box 547 / 904 6<sup>th</sup> St.  
Anacortes, WA 98221

Subject: Anacortes Comprehensive Plan Updated – Existing Conditions

Dear Ms. Grage,

This letter-report summarizes our analysis of the existing afternoon (PM) peak hour traffic conditions per the intersection data collected at:

- Oakes Ave / Ship Harbor Road
- 32<sup>nd</sup> Street / D Ave
- 41<sup>st</sup> Street / H Ave
- 4<sup>th</sup> Street / Q Ave
- 9<sup>th</sup> Street / Q Ave
- Seafarers Way / Q Ave
- 28<sup>th</sup> Street / R Ave
- 30<sup>th</sup> Street / R Ave
- 34<sup>th</sup> Street / R Ave
- SR 20 / Reservation Road
- SR 20 / Thompson Road
- SR 20 / March Point Road
- SR 20 / SR 20 Spur

Intersection volumes were collected on Wednesday, July 9, 2014 by idax. The PM peak hour is defined as the high four consecutive fifteen minute traffic volume intervals between 4 and 6 PM. This time period represents the period when traffic volume on local roadways are typically at their peak, and can generally correspond to rush hour traffic with commuters coming home from work.

The traffic conditions were evaluated based on 2010 Highway Capacity Manual (HCM) methodology using the Synchro computer program. The HCM measures intersection capacity based on levels of service (LOS) which are defined in terms of delay and categorized with letter grades from LOS A to LOS F. Table 1 defines the level of service categories.

Level of service at signalized and all-way stop sign controlled intersections are defined in terms of the average delay for the entire intersection. Minor approach stop controlled intersections, such as one-way stop and two-way stop sign controlled intersections, and roundabouts, are defined in terms of the delay for the worst vehicle movement.

**Table 1: Intersection Level of Service Categories**

| LOS | Signalized and All-Way Stop Controlled Intersections | Minor Approach Stop Controlled Intersections and Roundabouts | Description                                       |
|-----|--|--|---|
| A   | ≤10 sec  | ≤10 sec  | Free flow; little to no delay                     |
| B   | 10-20 sec  | 10-15 sec  | Reasonable flow; some delay                       |
| C   | 20-35 sec  | 15-25 sec  | Stable flow; noticeable but not significant delay |
| D   | 35-55 sec  | 25-35 sec  | Approaching unstable flow; very noticeable delay  |
| E   | 55-80 sec  | 35-50 sec  | Unstable flow; significant delays and low speeds  |
| F   | ≥80 sec  | ≥50 sec  | Forced flow; heavy congestion                     |

Table 2 summarizes the year 2014 existing level of service analysis at the thirteen study intersections. The table also compares the current 2014 PM peak hour intersection operations with the intersection analyses (2007 existing and 2017 future projection) prepared for the City's 2007 Transportation Plan.

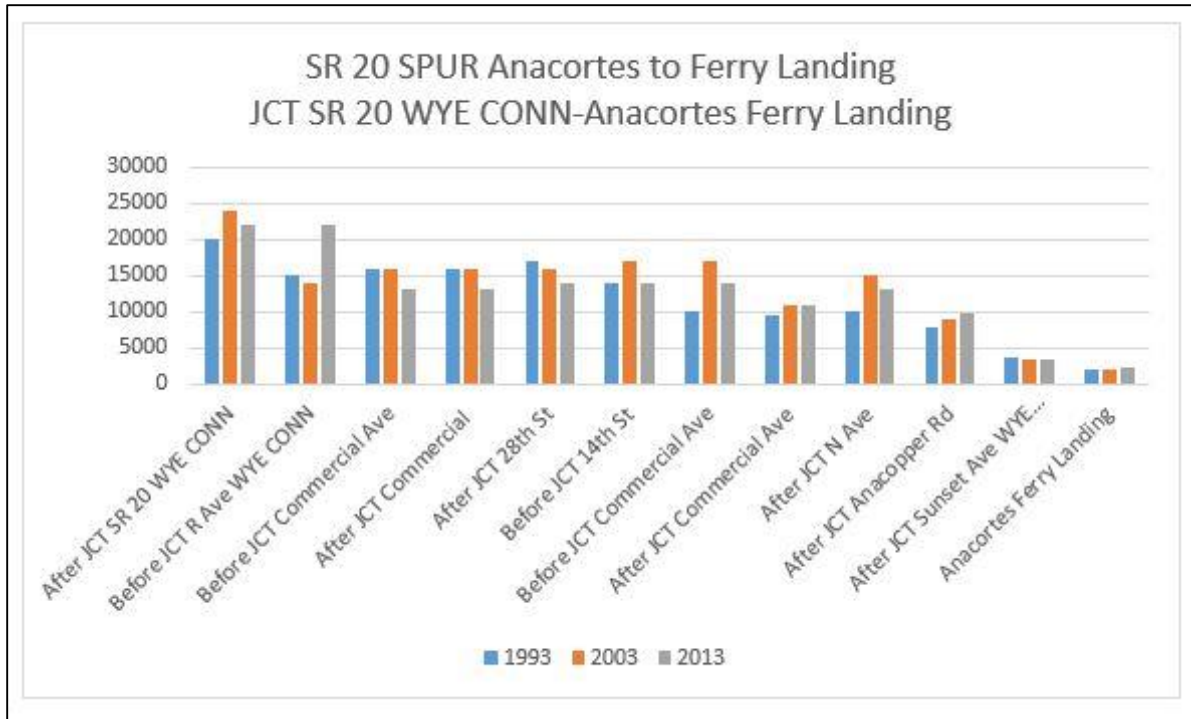
**Table 2: Intersection Level of Service Analysis; Existing Conditions**

| Intersection                    | Control Type | 2007 Existing (2007 Transp. Plan) |                   | 2017 Future (2007 Transp. Plan) |                   | 2014 Existing (Current Counts) |              |
|---------------------------------|--------------|-----------------------------------|-------------------|---------------------------------|-------------------|--------------------------------|--------------|
|                                 |              | LOS                               | Delay             | LOS                             | Delay             | LOS                            | Delay        |
| Oakes Ave / Ship Harbor Road    | TWSC         | B                                 | 10.6 <sup>1</sup> | B                               | 10.5 <sup>1</sup> | C                              | 23.2         |
| 32 <sup>nd</sup> Street / D Ave | TWSC         | D                                 | 25.5              | <b>E</b>                        | <b>39.8</b>       | C                              | 23.3         |
| 41 <sup>st</sup> Street / H Ave | All Stop     | -                                 | -                 | -                               | -                 | A                              | 8.0          |
| 4 <sup>th</sup> Street / Q Ave  | TWSC         | -                                 | -                 | -                               | -                 | B                              | 11.6         |
| 9 <sup>th</sup> Street / Q Ave  | TWSC         | -                                 | -                 | -                               | -                 | C                              | 21.1         |
| Seafarers Way / Q Ave           | OWSC         | -                                 | -                 | -                               | -                 | C                              | 19.5         |
| 28 <sup>th</sup> Street / R Ave | TWSC         | -                                 | -                 | -                               | -                 | C                              | 23.4         |
| 30 <sup>th</sup> Street / R Ave | TWSC         | -                                 | -                 | -                               | -                 | <b>E</b>                       | <b>35.4</b>  |
| 34 <sup>th</sup> Street / R Ave | TWSC         | -                                 | -                 | -                               | -                 | D                              | 34.1         |
| SR 20 / Reservation Road        | Signal       | -                                 | -                 | -                               | -                 | B                              | 19.3         |
| SR 20 / Thompson Road           | Signal       | -                                 | -                 | -                               | -                 | C                              | 20.1         |
| SR 20 / March Point Road        | Signal       | -                                 | -                 | -                               | -                 | B                              | 11.7         |
| SR 20 / SR 20 Spur              | Signal       | -                                 | -                 | -                               | -                 | <b>F</b>                       | <b>200.1</b> |

Two of the study area intersections are forecast to operate at LOS E:

- 30<sup>th</sup> Street / R Ave
- SR 20 and SR 20 Spur

The following exhibit is from WSDOT showing the change in traffic volumes on the SR 20 Spur (Commercial Ave and Oakes Ave) in Anacortes between the ferry terminal and SR 20 junction. The data shows that traffic volumes generally trending downward between 2003 and 2013.



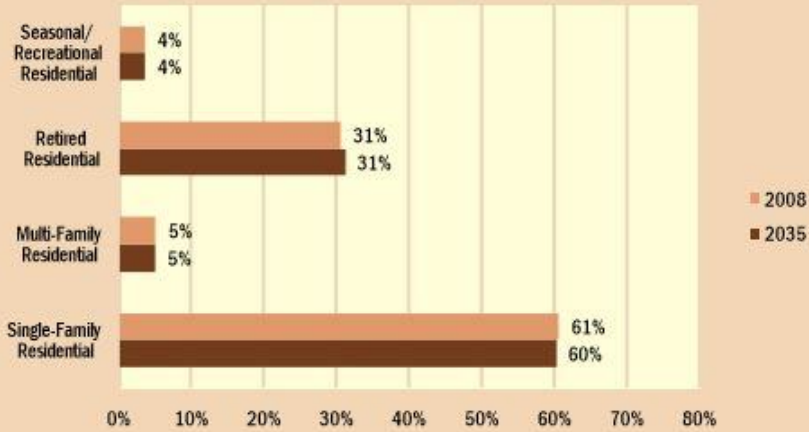
Attached are exhibits from the Skagit Island Counties Metropolitan and Regional Transportation Plan 2010-2035 that show the growth projections between 2008 and 2035 within the Fidalgo Subregion, which includes Anacortes. The exhibits show reasonably significant growth within the area, which will need to be addressed and incorporated into the update of the Transportation Plan.

We trust the above information will support your current needs as we continue to work on updating the City's Transportation Plan. Please contact TSI at your earliest convenience if you have any questions.

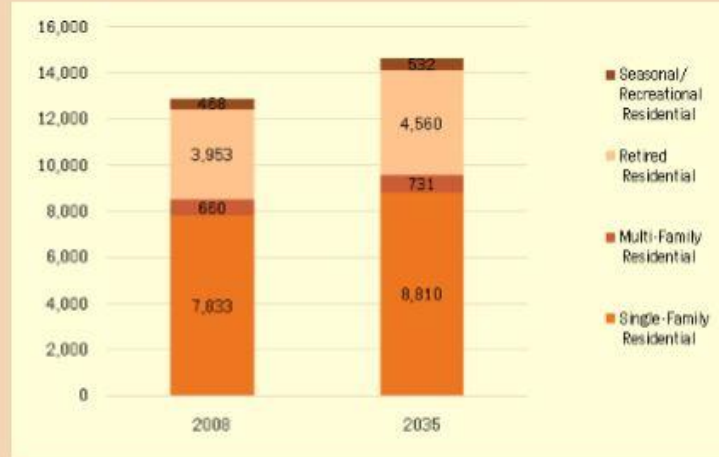
Thank you and sincerely,  
**Transportation Solutions, Inc.**

Jeffrey P. K. Hee, PE  
 Project Engineer

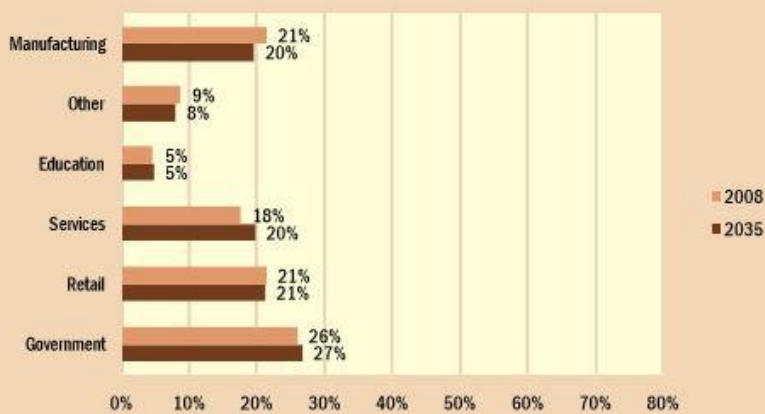
**Exhibit 5-12**  
Fidalgo Subregion: 2008 and 2035 Housing Mix



**Exhibit 5-13**  
Fidalgo Subregion: Residential Growth



**Exhibit 5-14**  
Fidalgo Subregion: 2008 and 2035 Employment Sectors



**Exhibit 5-15**  
Fidalgo Subregion: Employment Sector Growth

