

3.3 TRANSPORTATION

The transportation section of this DSEIS describes existing transportation conditions in the vicinity of *The Point at Northshore* and presents an analysis of future traffic conditions resulting from three development scenarios, the proposed *The Point at Northshore*, the *Proposed Action Alternative*, and the *No Action Alternative*. The Proponent has indicated that *The Point at Northshore* will be constructed as a multi-phase project and has provided information on proposed transportation mitigation to be conducted during specific project phases. Transportation-related factors evaluated here include existing conditions, project trip generation and distribution under the three alternatives, and proposed onsite and offsite streets and frontage improvements. Some of the mitigation elements herein are based on project phasing and not LOS related. These mitigation elements were identified and discussed with the Proponent in the course of the project review.

The transportation analysis is based on a traffic impact analysis conducted by Transportation Engineers Northwest (TENW) dated January 29, 2007, and additional analysis submitted in two memos dated July 19, 2007, and July 17, 2008. Additional review of traffic impacts projected to result from *The Point at Northshore* was conducted by City agencies and neighboring jurisdictions, including the City of Federal Way's *Transportation Concurrency Analysis* dated November 15, 2007, which evaluated potential impacts of the *Proposed Action* on the Federal Way road system. The Proponent has modified site plans to incorporate requests by state and local agencies. The findings of the TENW analysis, along with the comments of local and state agencies, have been used to determine whether adverse traffic impacts will result from development of *The Point at Northshore*.

Based on the information summarized here and submitted to the City, and with agreed upon mitigation, there will be no unavoidable adverse impacts to transportation as a result of the *Proposed Action*.

3.3.1 Affected Environment

Road Network

The project site is located south of Northshore Parkway and north of 33rd Street NE between approximately 37th and 40th Avenue NE in the City of Tacoma. The site is linked with the regional transportation system by several minor and collector arterials.

North of the site, Northshore Parkway provides east/west access to the site and eventually connects with Marine View Drive (SR 509). South of the site, 33rd Street NE provides a connection to Nassau Avenue NE. Nassau Avenue NE does not directly access the project site, but is connected to the North Shore Golf Course via Oakmont Place NE and North Shore Boulevard. Nassau Avenue NE carries traffic north to Northshore Parkway and south to Browns Point Boulevard NE. Collector arterials in the project vicinity include 29th Street NE, which becomes 31st Street NE; 38th Avenue NE; and McMurray Road NE. The only principal arterial in the project vicinity is Marine View Drive (SR 509), which runs from west of the subject property to the south. Each of these roads is described and located in **Figure 3.3-1**.

Bus and Non-Motorized Transportation Facilities

The North Shore Golf Course is not currently served by regular Pierce County bus service, although there are two bus stops within one mile of the site. The nearest route, Route 61,

operates only on weekdays with service to UW Tacoma and Downtown Tacoma. This route is also used by area high school students traveling to Stadium High School. The nearest stops to the project site are at 49th Avenue and 41st Street NE to the east of the project site and at Nassau Avenue NE and Newport Place NE to the northwest of the project site. There is no park and ride in this area.

There are no dedicated bicycle facilities at the current site. The existing pedestrian infrastructure in the vicinity includes raised sidewalks on Northshore Parkway, Fairwood Boulevard NE and Nassau Avenue NE. Paved/gravel shoulders are more prevalent on the other vicinity area streets, including some portions of Northshore Parkway. Gravel/earthen shoulders are provided on 38th Avenue NE, but are often used for residential parking.

Existing Traffic Volumes and Level of Service

The traffic analysis includes an evaluation of average and peak traffic volumes onsite access, an analysis of arterial level traffic impacts for the North Shore Golf Course vicinity, and analysis of intersection operations during the average weekday PM peak hour.

Site Access and Onsite Roadways

The primary vehicle access to and from the 18-hole golf course is North Shore Boulevard. The North Shore Golf Course generates about 640 vehicle trips per day, based on estimates by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 7th Edition, 2003. About 50 of the 640 trips occur during a weekday PM peak hour. The amount of existing traffic generated by the golf course is equivalent to about 10% of the total site traffic anticipated to be generated by *The Point at Northshore* development.

The only public roads providing traffic circulation on the North Shore Golf Course is the North Shore Boulevard access point via Oakmont Place. Onsite, there is a network of paved paths for golf cart and service vehicles.

Arterial and Intersection Traffic in Vicinity

The City of Tacoma's Level of Service (LOS) standard for transportation concurrency is LOS-E on principal arterials and LOS-D on secondary and collector roadways. The consultant's traffic study shows that with baseline conditions, each of the arterials in the study area were operating at or above the minimum LOS for PM Peak hour traffic.

The City of Tacoma identified the following study area intersections for evaluation during weekday PM peak hour conditions:

1. Northshore Parkway / Fairwood Boulevard NE / 42nd Ave NE (*Existing intersection providing access*)
2. Northshore Parkway / 45th Avenue NE
3. Browns Point Boulevard NE / Nassau Avenue NE
4. 33rd Street NE / Browns Point Boulevard NE (West)
5. 38th Avenue NE / McMurray Road NE / Browns Point Boulevard NE (West)
6. 33rd Street NE / 38th Avenue NE (*Future Site Access*)
7. 33rd Street NE / Browns Point Boulevard NE (Center)
8. 33rd Street NE / Browns Point Boulevard NE (East)
9. 33rd Street NE / 49th Avenue NE
10. SR 509 (Marine View Drive) / McMurray Road NE

11. SR 509 (Marine View Drive) / Norpoint Way NE
12. Norpoint Way NE / 29th Street NE
13. 31st Street NE / 53rd Avenue NE
14. Nassau Avenue NE / Oakmont Place NE (*Existing Site Access*)
15. SR 509 / Taylor Way

The delay range, or number of seconds required to pass through an intersection, was the criterion used to measure LOS for both signalized and unsignalized intersections. **Table 3.3-1** below illustrates the LOS standards used in this analysis.

**Table 3.3-1
LOS CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS**

Level of Service	Signalized Intersection Delay Range (sec)	Unsignalized Intersection Delay Range (sec)
A	<10	<10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: Transportation Engineering Northwest, LLC

Existing weekday PM peak hour LOS for the 15 study intersections are summarized in **Figure 3.3-2**. As shown in this exhibit, all of the four signalized intersections and 11 unsignalized intersection approaches are currently operating at the City of Tacoma's minimum LOS-D standard or better during PM peak hour.

Infrastructure outside City of Tacoma Jurisdiction

City of Federal Way

Comments provided by the City of Federal Way indicated that *The Point at Northshore* would impact traffic infrastructure outside the City of Tacoma. At the Proponent's request, the City of Federal Way prepared a *Transportation Concurrency Analysis* dated November 15, 2007, which identified 23 Federal Way *Transportation Improvement Plan* projects impacted by the *Proposed Action*.

State of Washington

The intersection of Taylor Way and SR 509, one of the study intersections reviewed in the traffic impact analysis, involves a right-of-way in the Washington State Department of Transportation's (WSDOT) jurisdiction, namely SR 509. The WSDOT provided comments to the City of Tacoma concerning impacts on SR 509. In regard to the intersection of Taylor Way and SR 509, WSDOT commented that a right turn lane from Taylor Way onto SR 509 would be necessary prior to Phase III of *The Point at Northshore*. These comments were considered in this analysis.

City of Fife

The intersection of Taylor Way and SR 509, one of the study intersections under review by the traffic impact analysis, is located in the City of Fife. The City of Fife did not comment on the *Proposed Action*.

3.3.2 Impacts of the Proposed Action

Proposed Development

The proposed *The Point at Northshore* development would consist of residential uses providing up to 860 dwelling units when fully complete. The development would be constructed in four phases over a period of six or more years. For the purposes of determining the number of trips generated by the project, this analysis assumed a project completion year of 2012.

Traffic impact analysis performed by TENW assumed a final build out of 864 units. Because the current proposal is for 860 units, some proportionate adjustments in trip generation and traffic volumes may be appropriate. When conducting impacts analysis, TENW and the City have considered project impacts per development phase and identified mitigation measures per project phase where appropriate.

Trip Generation under Proposed Action

Trip generation was estimated for the project based on the information provided in the ITE *Trip Generation Manual*, 7th Edition, 2003. The project is expected to generate a net total of about 5,330 trips per weekday, with 523 occurring during the weekday PM peak hour. Trip generation was calculated using trip equations for single-family detached homes and multi-family townhouse units for average daily and PM peak hour conditions, as shown in **Figure 3.3-3**.

The percent of traffic generated per development phase was estimated as follows: trip generation for the first phase would represent about 30% of total traffic; Phase II about 20%; Phase III about 30%; and Phase IV about 20%. Phases I and III, which include all of the single-family units, would generate about 60% of the total traffic, while townhouses in Phases II and IV would account for about 40% of the total site generation.

Trip Distribution and Assignment under Proposed Action

The distribution of PM peak hour project-generated traffic to and from *The Point at Northshore* onto the vicinity roadway system was based on traffic model data provided by staff at the cities of Tacoma and Federal Way. Both cities have traffic models that are used to predict/forecast travel patterns for future years based on anticipated development according to adopted land use plans. Transportation staff from both cities reviewed and agreed upon a distribution of traffic to and from the site and the vicinity road system.

The traffic models established the following distribution patterns for traffic generated by the residential project:

- 29% North via 21st Avenue SW, 35th Avenue SW and Hoyt Road SW;
- 25% South via SR 509 and Taylor Way;
- 31% East via SW 340th Street, SW 344th Street and 29th Street NE;
- 5% West via Northshore Parkway and Browns Point Boulevard NE; and
- 10% Local to vicinity neighborhoods.

Traffic generated at completion of *The Point at Northshore* was assigned to the area roadway network based on the above distribution. **Figure 3.3-4** illustrates the assignment of project-generated PM peak hour trips through each of the identified study intersections.

Offsite Traffic Impacts under Proposed Action

The Proponent has submitted plans that indicate construction of a multi-phase project. At the City's request, the Proponent provided information in two memos from TENW dated July 19, 2007 and July 17, 2008, on proposed traffic mitigation to be conducted during specific project phases. Proposed mitigation includes improvements to offsite traffic infrastructure that will experience greater vehicle use upon development of *The Point at Northshore*. City staff has reviewed the proposed mitigation in light of the most current development proposal and has accepted TENW's proposed mitigation with amendments, when necessary, to reflect current City standards and address potential project impacts. Below is a description of potential offsite traffic impacts (see also **3.3.6 Mitigation Measures**).

Neighborhood Traffic Impacts

Increased frequency of through-traffic on streets adjacent to the proposed development could impact neighborhood traffic safety. The Proponent will be required to work with the cities of Tacoma and Federal Way to provide traffic-calming measures in the adjacent neighborhood.

There is a history of traffic complaints in the neighborhood to the west of the existing North Shore Golf Course. North Shore Boulevard passes through the neighborhood before it dead ends at the golf course parking lot. Neighbors have reported excessive through-traffic and have demanded mitigation for neighborhood traffic impacts. As a result, numerous City of Tacoma resources have been allocated to address these neighborhood traffic concerns. Traffic resulting from the development of *The Point at Northshore* could further exacerbate an existing traffic issue on North Shore Boulevard and nearby Oakmont Place. To mitigate this projected impact, the Proponent has agreed to construct a barrier on North Shore Boulevard at the edge of *The Point at Northshore* site to prevent all vehicle travel, except emergency vehicles, from using this access point. The Proponent shall provide hammerhead turnarounds on either side of the barrier to prevent traffic impacts. In addition, the Proponent should provide a pedestrian connection through or around the barrier and sidewalk connections to existing sidewalks to assure safe pedestrian passage.

Neighborhood traffic impacts regarding the City of Federal Way are discussed below under the heading ***Impacts to the City of Federal Way Infrastructure under Proposed Action***.

South Access at 33rd Street NE at 38th Avenue NE

A new southern access to 33rd Street N.E. at 38th Avenue N.E. will be constructed with Phase I of the development. Based on traffic forecasting for the southern site access, TENW recommended improvements to increase the capacity of 33rd Street NE and 38th Avenue NE.

The City of Tacoma has plans to develop the 33rd Street NE right-of-way into a full arterial in the future. Therefore, any required improvements to 33rd Street NE must be done in coordination with the future plans of City for this right-of-way. The recommended frontage improvement called for in the TENW analysis included 22 feet of pavement north of the future street centerline to the new concrete curb and gutter, new landscape strip, new sidewalk, and street illumination. An asphalt wedge curb is recommended on the south side of 33rd Street NE. The Proponent submitted a right-of-way graphic showing a 60-foot right-of-way with sidewalks on both sides, a total of three lanes of traffic, and parking and biking lane on the south side of the street.

The City reviewed the existing conditions of the 33rd Street right-of-way and the proposed mitigation and concluded that additional mitigation will be necessary. The existing 33rd Street

right-of-way varies in width from 60 feet down to 30 feet. The constructed asphalt paving will vary in width between 22.5 feet and 24 feet. To assure motorists safe passage through the transitional area where the right-of-way width changes from 60 to 30 feet, additional design treatment, such as additional vegetation safety barriers, will be required. Additionally, the following improvements shall be required concurrent with Phase I of the development:

- Where 33rd Street NE is constrained to 30 feet in width, improvements along it shall consist of a 5-foot wide sidewalk abutting the site, cement concrete vertical curb, a gutter, and 22.5 feet of asphalt paving with asphalt wedge curb opposite the site. Where the right-of-way width is greater than 30 feet, planter strips shall be provided between the sidewalk and the curbing, and 24 feet of asphalt paving shall be provided. To assist the Proponent, the City has prepared an exhibit showing the 30-foot cross-section and a roadway transition plan to the 60-foot right-of-way along 33rd Street NE frontage (see **Figure 3.3-5**). The Proponent shall work with the City Engineer to finalize these plans. At the intersection of the proposed access way, 33rd Street NE and 38th Avenue NE, the Proponent shall provide ADA-designed curb ramps at all four corners.

The City Traffic Engineer will determine the final alignment of the road to ensure it will not preclude construction of future planned road improvements.

Offsite roadway improvements to 38th Avenue NE must be completed before 80% completion of Phase I. Therefore, before a building permit is issued for the home that would constitute 80% completion of Phase I, the following upgrades to 38th Avenue NE will be necessary:

- The Proponent shall improve 38th Avenue NE to arterial standards including sewer and storm water facilities, curb, gutter, sidewalks, and ADA curb ramps as required. The roadway shall be reconstructed using concrete asphalt, and the roadway section shall include a vehicle lane, a bike lane, a parking lane, and a sidewalk with curb and gutter in each direction (see **Figure 3.3-6**). At the time of permit, the road design shall be approved by the City Engineer. In addition, the Proponent shall dedicate right-of-way for 33rd Street NE at the SE corner of the site to accommodate the City's future alignment of this road.

Onsite Traffic Impacts under Proposed Action

Site Access

As mentioned above, two primary site accesses are proposed to serve the site, one to the north at Northshore Parkway and Fairwood Boulevard, and one to the south at 33rd Street NE in alignment with 38th Avenue NE.

According to TENW, due to projected failing side-street LOS during peak hours, a traffic signal would be warranted at the northern access intersection of Northshore Parkway and Fairwood Boulevard NE concurrent with development of Phase II. The existing right-of-way appears to be large enough to accommodate the signal equipment and intersection widening. Signalization of this intersection would provide sufficient capacity to accommodate full development of the project.

All approaches at the southern access intersection are anticipated to operate at LOS-B or better with little or no vehicular queuing impacts in 2012 with full project completion. To the south of the project site, 39th Avenue NE, a collector arterial, is anticipated to carry about 25% of the project-generated traffic, which represents about 1,300 additional trips per day.

Concurrent with Phase I, the existing site access at North Shore Boulevard via Oakmont Place will be blocked to all non-emergency traffic. In order to provide safe fire and emergency vehicle circulation, turnarounds on either side of the barrier on North Shore Boulevard must be designed to meet the City *Design Manual*.

Proposed New Streets and Frontage Improvements

The proposed development will include construction of several new streets and reconstruction or improvements to existing streets. New streets include one primary north/south street which will be designed to meet the City's standards for an arterial street (with a proposed right-of-way width varying between 70 feet and 60 feet), several residential streets (right-of-way width of 52 feet), and a network of private street easements (proposed right-of-way width of 30 feet) to serve the townhouse neighborhoods. There are 16 proposed streets that terminate in a dead end or cul-de-sac. See **Figure 3.3-7** and **Figure 3.3-8**, which show the location of the proposed roads and their right-of-way widths.

The Proponent has proposed street designs for the major north/south street that modify the City's 2004 *Design Manual* standard arterial right-of-way section. The submitted right-of-way sections did not include detailed information on street paving or plantings. Below is a summary of the proposed modified street rights-of-way:

- **70-foot segment:** Starting at the southern access point 33rd Street NE, the 70-foot right-of-way continues northward to its intersection with the 60-foot right-of-way near lots 234 and 259. Within the 70 feet are two 23-foot travel lanes, each including on-street parking. On either side of the street are sidewalks and a planting strip between the street and the sidewalk.
- **60-foot segment:** Starting at Fairwood Boulevard, which connects to the northern access point at Northshore Parkway NE, the 60 foot right-of-way continues southward to its intersection with the 70-foot right-of-way near lots 234 and 259. Within the 60 feet are two 23-foot travel lanes, each including on-street parking, and sidewalks on both sides.

For development within Phases I and III, the Proponent has proposed using the City's standard design for residential streets included in the 2004 *Design Manual*. The 52-foot right-of-way consists of two 14-foot travel lanes with parking and sidewalks on both sides and a planting strip along the edge of the sidewalk not adjacent to the street.

For development within Phases I and IV, the Proponent has proposed private access streets within a 30-foot right-of-way. The proposed private streets have the following design characteristics: two 10-foot travel lanes with no parking, 5-foot sidewalks on both sides, and wedge curbs on both sides.

Figure 3.3-9 shows the above-described proposed street sections.

With the exception of the private access streets, the City's Engineering Division has approved the proposed street sections for rights-of-way with widths of 70, 60, and 52 feet, with the following clarification of required elements:

- **70-foot Segment:** The unnamed primary north/south arterial at the southern portion of the proposed development, from the intersection of 33rd Street NE north to the

intersection near Lot 255, shall be developed to City collector arterial street standards. It shall be 70 feet wide and contain sidewalks on both sides of the street, vertical curb and gutters on both sides of the street, parking on both sides of the street, bike lanes on both sides of the street, 5-foot wide planter area on both sides, and one vehicular driving lane per direction. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane, and 11 feet for driving surface, for a total of 23 feet per side of street. A minimum of 46 feet of total paved surface shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage and traffic calming measures designed and installed to the approval of the City Engineer. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.

- **60-foot Segment:** The unnamed primary north/south street leading south from Fairwood Boulevard NE to the tie-in to the proposed 70-foot right-of-way shall be developed with one of the alternatives described below. The first alternative is to have a 5-foot wide planting strip along both sides of the right-of-way and construct the right-of-way according to the comments below (A). The other alternative is to increase the paving width to allow for parking on both sides and reduce or eliminate the planting strip (B).
 - A. The unnamed street leading south from Fairwood Boulevard NE to the tie-in to the 70-foot wide right-of-way shall be designed to be a 60-foot wide right-of-way. The right-of-way shall include sidewalks on both sides of the street, the planting strips, vertical curb and gutter on both sides of the street, a bike lane on both sides of the street, driving lanes for both directions of vehicle traffic, parking on one side of the street, and posted “NO PARKING” on the other side of the street. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane, and 11 feet for driving surface, for a total of 23 feet on one side of the street. The opposite side of the street shall consist of 5 feet for a bike lane and 11 feet for driving surface, for a total of 16 feet of paving width. A total street paving width of 39 feet shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.
 - B. The unnamed street leading south from Fairwood Boulevard NE to the tie-in to the 70-foot wide right-of-way shall be designed to be a 60-foot wide right-of-way. The right-of-way shall include sidewalks on both sides of the street, vertical curb and gutter on both sides of the street, a bike lane on both sides of the street, driving lanes for both directions of vehicle traffic, and parking on both sides of the street. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane, and 11 feet for driving surface, for a total of 23 feet on both sides of the street. A total street paving width of 46 feet shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.

The proposed private road designs (30-foot rights-of-way) do not meet the City's standard in the 2004 *Design Manual* (section 1.030 F). The Proponent is requesting a waiver modification allowed by *TMC* 13.04 to permit the narrower private streets; however the narrower streets leave no room for on-street parking. The impact related to the reduction in on-street parking is discussed below under **Parking**. In order to assure safe travel for vehicles and pedestrians, the City requires the following minimum standards for the private road design:

Private Roads:

1. The City will allow the 30-foot wide private road design on a street that ends with an approved turn-a-round. The 30-foot wide private road shall have sidewalks on each side, vertical curb and gutter combination, and asphalt paving 20 feet in width. Additional easements will be required for utilities.
2. The City will require a 38-foot wide private road design, where on-street parking can be accomplished on one side of the street, including the road segment commencing at the connection to Fairwood Boulevard NE and continuing south to the transition to the proposed 52-foot street right-of-way in Phase III. The 38-foot wide design increases the parking supply for guests and residents. The 38-foot wide Private Road design shall consist of 28 feet of paving, a combination sidewalk and vertical curb, and gutter (see **Figure 3.3-10 38-foot Private Road – Required Design**).

Dead End Streets

At least three legs of the proposed private streets in Phase IV exceed the maximum length of 500 feet for dead ends, according to *TMC* 13.04.190. However, according to *TMC* 13.04.110, the maximum dead end length standard may be waived where a unique circumstance exists making the application of the standards unreasonable.¹ In the case of the proposed development, the unique shape of the lot and the higher proposed housing density may qualify the project for this waiver. The Tacoma Fire Department has determined that the proposed street alignment, including the over 500-foot-long dead ends does not pose any threat to fire and public safety as long as the townhouses are equipped with sprinklers, adequate turnarounds, and fire hydrants are provided. Current fire codes do not require townhouses to include sprinklers; however, sprinklers can be required if local access problems make it more difficult to reach the townhouses. Townhouses at *The Point at Northshore* located on dead end streets longer than 500 feet will be more difficult to access; therefore, the townhouses will be required to be equipped with automatic sprinkler systems.

Parking

The proposed development meets the minimum standard for off-street parking, which is two parking spaces per dwelling unit, per *TMC* 13.06.510. However, the proposal for a street pavement width of 20 feet and higher unit density will lead to a shortage of on-street visitor and overflow parking. As mentioned above, the Proponent proposes 30-foot wide private roads to access the townhouse units built in Phase II and Phase IV. This right-of-way section provides for a street pavement width of 20 feet with sidewalks on both sides. On-street parking is not allowed on streets with pavement width of 20 feet or below, in order to provide the minimum width required for fire and emergency vehicle access.

A typical residential street in the R-2 zoning district would be 300 feet in length and accommodate parking on both sides of the street. The block would accommodate

¹Waivers to subdivision and platting standards referenced in *TMC* 13.04.110 must be approved by a Hearing Examiner or the Land Use Administrator.

approximately six houses on each side of the street.² If each lot used curb space to accommodate a driveway, one side of a typical residential street could accommodate at least 6 on-street parking spaces. Therefore, a minimum on-street parking standard for a typical R-2 residential street with driveways is six parking spaces per 300 lineal feet of street, or two spaces per 100 feet. A typical street with no driveways could accommodate approximately 13 parking spaces on one side, or approximately 4 spaces per 100 lineal feet.³

The proposed 30-foot private roads in Phases II and IV accommodate no on-street parking. Also, the current proposal exceeds by 50 units the general development intensity of one unit per 5,000 square feet for the R-2 zoning district.⁴ Higher density and fewer parking stalls present a potential adverse parking impact.

In order to mitigate the potential parking impact, the Proponent will be required to provide at minimum, 4 on-street spaces for every 100 lineal feet in areas where the private road tract is 30 feet wide. On streets where townhouses are on only one side of the street and there is adequate space to allow street widening, the private road can be widened to 38 feet to accommodate areas of on-street parking.

Under the current proposal, Phase II contains approximately 5,150 lineal feet of 30-foot private road tracts; therefore, 214 on-street parking spaces are required. Assuming parking is available on both sides of the 60-foot right-of-way, and streets are widened to 38 feet where possible to accommodate on-street parking, the City projects a parking surplus of 8 parking spaces for Phase II. If parking is available on only one side of the 60-foot right-of-way, as allowed above (see “60-foot Segment,” Section B), the City projects a parking deficit of 99 parking spaces for Phase II.

Phase IV contains approximately 2,900 lineal feet of 30-foot private road tracts; therefore, 116 on-street parking spaces are required. Assuming streets are widened to 38 feet, where possible, to accommodate on-street parking, the City projects a parking deficit of 31 parking spaces for Phase IV.

If the required parking cannot be accommodated through street widening or street redesign, the Proponent will be required to construct satellite lots within the townhouse neighborhood where parking will be provided to meet the required amount. These satellite parking areas must be within 500 feet of the townhouses they are intended to serve.

Intersection Level of Service under Proposed Action

TENW conducted intersection LOS analyses on 15 study intersections and both site accesses. Potential impacts were calculated for weekday PM peak hour conditions with and without the project.

The weekday PM peak hour LOS results with and without the proposed development are summarized in the **Figure 3.3-11**. Side-street turns at the intersection of Northshore Parkway

² This assumes a typical R-2 lot width of 50 feet.

³ Parking space calculations assume a standard parking space dimension of 20 feet by 8 feet, a driveway width of 10 feet, and a required 5-foot “No Parking” setback on either side of the driveway. Parking area is also reduced by required crosswalk areas.

⁴ *The Point at Northshore* proposes 494 units in Phases II and IV. According to *TMC 13.04.240.C.1* the maximum units in North Shore Country Club Estates PRD is based on the underlying R-2 zoning, which allows lots to be a minimum of 5,000 square feet. Based on the gross square footage of the PRD lot and an assumption of 5,000 square feet per unit, the gross developable area in Phases II and IV could accommodate 444 units.

and Fairwood Boulevard NE / 42nd Avenue NE (#1) were projected to operate at LOS-F upon project completion. The Proponent has proposed a traffic signal at this intersection to mitigate the proposed traffic impact. The City of Tacoma would require the signal to be installed with Phase II of the development. According to the traffic impact analysis, upon final completion of *The Point at Northshore* in 2012, this and all other study intersections and unsignalized approaches would meet the City of Tacoma's level of service concurrency standard of "E" or better for arterial corridors and "D" for other arterials and collectors during the weekday PM peak hour.⁵

Impacts to Non-Motorized Transportation under Proposed Action

Bicycle lanes are proposed for either side of the new north/south arterial through the site, which will connect Northshore Parkway and 33rd Street NE.

The proposed site plan shows concrete sidewalks along all onsite roadways, including the northern side of the improved 33rd Street NE frontage. The proposed plan shows pedestrian paths within the proposed green spaces, but these paths do not appear to be contiguous. Additionally, sidewalks at the end of dead end streets do not connect to nearby streets. A fragmented pedestrian network may lead to public safety dangers if pedestrians are forced to walk in streets or through unimproved areas. As mitigation, the Proponent will be required to provide a paved pedestrian path connecting proposed green spaces, as well as connect all dead end sidewalks to non-dead end streets nearby.

Impacts to Transit Service under Proposed Action

Pierce Transit currently has only limited service to the project vicinity. However, the project will increase the population density in the area; and Pierce Transit will evaluate transit service needs once the timing of occupancy and density is known.

Impacts to the City of Federal Way Infrastructure under Proposed Action

The City of Federal Way concludes that two types of traffic impacts will result from *The Point at Northshore*. First, the proposed development will result in increased levels of traffic impacting projects identified by the Federal Way *Traffic Improvement Plan (TIP)*; and second, the project will result in impacts to neighborhood safety within the City of Federal Way.

The Federal Way *Traffic Concurrency Analysis* identifies 23 improvement projects where the *Point at Northshore* development adds 1 or more PM peak hour trips.⁶ The *Traffic Concurrency Analysis* then calculates the development's pro rata share of each of those *TIP* improvement projects to establish recommended mitigation, described below. This evaluation is consistent with the Proponent's proposal for mitigation for Federal Way road impacts. Impacts to Federal Way roads will occur in phases, as the development proceeds, based on the number of residential units constructed in any given phase. As such, mitigation contributions to Federal Way road improvements should be structured to correspond to the phases of development, perhaps through a mitigation agreement.

⁵See *City of Tacoma Comprehensive Plan*, Transportation Chapter, Section II "Level of Service Standard and Concurrency Management."

⁶In its November 2007 *Transportation Concurrency Analysis for The Point at Northshore*, the City of Federal Way evaluated impacts to each improvement project where *The Point at Northshore* contributed one or more PM peak hour trips.

The City of Federal Way is also concerned about impacts to neighborhood safety. According to the City of Federal Way, the proposed project would increase cut-through traffic onto residential streets, particularly 47th Avenue SW (Stonebrook Neighborhood) in Federal Way. Additional mitigation to address neighborhood safety has been requested by the City of Federal Way. Though the Proponent has verbally agreed to this mitigation, no formal mitigation agreement has been finalized. In order to avoid environmental impacts resulting from *The Point at Northshore*, the Proponent must agree to mitigation requested by the City of Federal Way, as described below under **SEPA Mitigation**.

Impacts to State of Washington Infrastructure under Proposed Action

The traffic impact analysis evaluated three study intersections involving the Washington State right-of-way SR-509. WSDOT requested mitigation at the intersection of SR-509 and Taylor Way. However, this intersection was projected to operate at or above the minimum LOS-E in 2012. Because the intersection is not projected to fall below the minimum City of Tacoma LOS-E and is located in the City of Fife, no additional mitigation is required.

3.3.4 Impacts of the Proposed Action Alternative

The impacts to traffic facilities of the *Proposed Action Alternative* will likely be similar to the impacts caused by the *Proposed Action*; however, the reduced scope of development will lead to fewer housing units and, therefore, a proportionate reduction in generated trips. Required traffic mitigation would, therefore, also be proportionately reduced.

The design of new streets could change under the *Proposed Action Alternative* as a result of site redesign to accommodate open space transition areas. Specifically, it will be necessary for the north/south road at the eastern portion of Phase IV, near Tract “BBB,” beginning at the connection with Fairwood Boulevard and continuing south to the connection with the proposed 52-foot right-of-way in Phase III, to be realigned to accommodate the open space transition areas. This road should be designed to accommodate parking on a minimum of one side of the street.

Site redesign may also impact on-street parking requirements in Phases II and IV. On-street parking requirements will be calculated based on the same methodology described above in the “Parking” section of **Onsite Traffic Impacts under Proposed Action**.

3.3.5 Impacts of the No Action Alternative

The *No Action Alternative* only contemplates the currently existing North Shore Golf Course facility of the 18-hole North Shore Golf Course without any additional residential or commercial development.

Figure 3.3-12 illustrates the year 2012 without project-created PM peak hour traffic volumes at the study intersections.

As shown above in **Figure 3.3-11**, without the proposed project, all of the study intersections will operate at or above the City’s minimum LOS-E.

There are existing neighborhood concerns regarding through-traffic and access to the North Shore Golf Course via North Shore Boulevard and Oakmont Place. These impacts would likely continue and require resources from the City of Tacoma.

There is no evidence that traffic impacts to Federal Way under the *No Action Alternative* would result in adverse impacts.

State intersections studied under TENW's traffic impact analysis were all projected to perform at or above the City's minimum LOS-E in 2012 under the *No Action Alternative*.

There is no evidence that impacts to non-motorized traffic under the *No Action Alternative* would result in adverse impacts.

3.3.6 Mitigation Measures

Mitigation measures encompass two areas: concurrency and SEPA mitigation. The City of Tacoma *Comprehensive Plan* identifies a LOS threshold of LOS-E for principal arterial corridors identified in Figure 4 of the *Comprehensive Plan* and LOS-D for other arterial corridors.

With agreed upon traffic improvements, the City of Tacoma arterial LOS standard is met for the *Proposed Action* and *Proposed Action Alternative*.

SEPA mitigation is required for impacts that are a direct result of the proposed project, construction and occupancy, including project phasing. In addition, SEPA mitigation is utilized to supplement the *Tacoma Municipal Code (TMC)* authority and other governing requirements. References to such documents are listed below, but are not intended to be comprehensive or provide complete citations. The *TMC* is available on the City of Tacoma website. The other referenced materials for traffic operations, safety and design can be found through a variety of online resources.

- *TMC*, Chapter 10.14
- *TMC*, Chapter 10.18
- *TMC*, Chapter 10.22
- *TMC*, Chapter 13.04
- *TMC*, Chapter 13.06
- *TMC*, Chapter 13.16
- Tacoma 2004 *Design Manual*
- *Transportation Element, Tacoma Comprehensive Plan*
- *AASHTO Green Book, Policy of Highway Design*
- *WSDOT Design Manual*
- *Manual for Uniform Traffic Control Devices*
- Local Agency Guidelines
- *ITE Traffic Engineering Handbook*

Proposed Action

The following transportation improvements are recommended to mitigate project impacts:

City of Tacoma Mitigation

1. The traffic impact analysis (TIA) for this project includes a forecast year of 2012. If the project is not fully developed by that year, the City Engineer will require the Proponent to prepare a new TIA for review, which may lead to additional mitigation.
2. The proposed project must conform to the road construction and frontage improvement standards of the *Tacoma Municipal Code*, including, but not limited to *TMC* 13.04 "Platting and Subdivisions" and the adopted construction design manual dated April, 2004. For purposes of the 60 and 70-foot rights-of-way, the following standards should be met:
 - A. **70-foot Segment:** The unnamed primary north/south arterial at the southern portion of the proposed development, from the intersection of 33rd Street NE north to the intersection near Lot 255, shall be developed to City collector arterial street standards. It shall be 70 feet wide and contain sidewalks on both sides of the street, vertical curbs and gutters on both sides of the street, parking on both sides of the street, bike lanes on both sides of the street, 5-foot wide planter areas on both sides, and one vehicular driving lane per direction. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane and 11 feet for driving surface, for a total of 23 feet per side of street. A minimum of 46 feet of total paved surface shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage and traffic-calming measures designed and installed to the approval of the City Engineer. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.
 - B. **60-foot Segment:** The unnamed primary north/south street leading south from Fairwood Boulevard NE to the tie-in to the proposed 70-foot right-of-way shall be developed with one of the alternatives described below. The first alternative is to have a 5-foot wide planting strip along both sides of the right-of-way and construct the right-of-way according to the comments below (A). The other alternative is to increase the paving width to allow for parking on both sides and reduce or eliminate the planting strip (B).
 - i. The unnamed street leading south from Fairwood Boulevard NE to the tie-in to the 70-foot wide right-of-way shall be designed to a 60-foot wide right-of-way. The right-of-way shall include sidewalks on both sides of the street, the planting strips, vertical curb and gutter on both sides of the street, a bike lane on both sides of the street, driving lanes for both directions of vehicle traffic, parking on one side of the street, and posted "NO PARKING" on the other side of the street. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane, and 11 feet for driving surface, for a total of 23 feet on one side of the street. The opposite side of the street shall consist of 5 feet for a bike lane and 11 feet for driving surface for a total of 16 feet of paving width. A total street paving width of 39 feet shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed

Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.

- ii. The unnamed street leading south from Fairwood Boulevard NE to the tie-in to the 70-foot wide right-of-way shall be designed to a 60-foot wide right-of-way. The right-of-way shall include sidewalks on both sides of the street, vertical curb and gutter on both sides of the street, a bike lane on both sides of the street, driving lanes for both directions of vehicle traffic, and parking on both sides of the street. The paved area shall consist of 7 feet for parking, 5 feet for a bike lane, and 11 feet for driving surface, for a total of 23 feet on both sides of the street. A total street paving width of 46 feet shall contain a minimum surface composition of 3 inches of Hot Mix Asphalt PG58-22, 1.5 inches of Crushed Surfacing Top Course, and 7.5 inches of Crushed Surfacing Base Course. Street improvements shall include all necessary drainage. Any unsuitable foundation excavation material must be removed as directed by the City Engineer.
3. The proposed development must conform to the provisions of the *Tacoma Municipal Code* regarding traffic LOS, including providing traffic infrastructure necessary to improve the intersection of Fairwood Boulevard and Northshore Parkway, projected to fail under the proposed development. The new traffic signal must be installed concurrent with Phase II of the development.
 4. In order to provide safe fire and emergency vehicle circulation, turnarounds on either side of the barrier on North Shore Boulevard between *The Point at Northshore* and the existing neighborhood must be designed to meet the *City Design Manual* standards. Pedestrian access through the barrier must be provided, including sidewalk connections to existing sidewalks. This must be performed concurrent with Phase I.
 5. In order to ensure pedestrian safety, new streets shall be designed to incorporate traffic-calming devices, such as speed humps, traffic circles, raised crosswalks, and bulb-outs.
 6. All townhouses located on dead end streets longer than 500 feet in length must be equipped with automatic sprinkler systems.
 7. Where 20-foot private access streets are proposed, the Proponent must provide a minimum of two on-street parking spaces per 100 lineal feet of street. This parking is in addition to the required off-street parking of 2 spaces per dwelling unit. If on-street parking cannot be accommodated by widening the street, the Proponent shall construct satellite parking pads to accommodate any parking deficiencies. These satellite parking areas must be within 500 feet of the townhouses they are intended to serve.
 8. The Proponent shall provide a paved pedestrian path connecting all proposed open space tracts, as well as connection of all dead end sidewalks to non-dead end streets nearby.
 9. Where 33rd Street NE is constrained to 30 feet in width, frontage improvements along it shall consist of a 5-foot wide sidewalk abutting the site, a cement concrete vertical

curb, a gutter, and 22.5 feet of asphalt paving with asphalt wedge curb opposite the site. Where the width of the 33rd Street NE right-of-way is greater than 30 feet, a planter strip shall be provided between the sidewalk and the curbing and 24 feet of asphalt paving shall be provided. The Proponent shall work with the City Engineer to finalize these plans. At the intersection of the proposed access way, 33rd Street NE and 38th Avenue NE, the Proponent shall provide ADA designed curb ramps at all four corners. This condition must be performed concurrent with Phase I of the development.

10. Prior to issuance of a building permit for construction that would constitute 80% completion of Phase I, the Proponent shall improve 38th Avenue NE to arterial standards including sewer and stormwater facilities, curb, gutter, sidewalks, and ADA curb ramps, as required. The roadway shall be reconstructed using concrete asphalt, and the roadway section shall include a vehicle lane, a bike lane, a parking lane, and a sidewalk with curb and gutter in each direction. At the time of permit, the road design shall be approved by the City Engineer. In addition, the Proponent shall dedicate right-of-way for 33rd Street NE at the SE corner of the site to accommodate the City's future alignment of this road.
11. The Proponent shall include a note on the face of the Final Plat that creates a perpetual restrictive covenant stating that all areas identified as private roads shall be owned and maintained by the Homeowners Association and reserved exclusively for pedestrian and vehicular access and underground utility purposes.

City of Federal Way Mitigation

The City of Federal Way has requested the mitigation measures outlined below to address the *Proposed Action's* proportionate share of impacts to the Federal Way road system and to address impacts to neighborhood safety. The following measures must be incorporated prior to issuance of infrastructure construction permits.

1. Concurrency Pro-Rata Mitigation, assuming a 10 trip threshold.
 - A. The Proponent must pay a pro rata share of the costs of traffic improvement projects in the City of Federal to which the development (in total, not by phase) contributes 10 or more PM peak hour trips. This mitigation shall be based on the number of residential units being constructed, and may be implemented in phases to match the phases of development, provided that the 10 PM peak hour threshold for mitigation shall be based on the total development, even if an individual phase does not contribute 10 trips to that improvement. The Proponent, the City of Tacoma, and the City of Federal Way may execute a mitigation agreement describing the timing and methodology of implementing this mitigation. The mitigation agreement shall incorporate the following principles:
 - i. Identification of those Federal Way *TIP* projects to which the development will contribute 10 or more PM peak hour trips, based on the *TIP* projects identified in the November 15, 2007 *Transportation Concurrency Analysis* or, alternatively, based upon a new concurrency analysis to be completed as part of the City's review of the construction permits for a particular phase of the project at some point in the future.
 - ii. Identification of the total cost of the *TIP* projects identifies in (i) above.

- iii. Determination of the pro rata share of the development (or phase), calculated by using as the numerator the number of development-generated vehicle trips to a particular improvement and using as the denominator the total number of trips to that particular improvement when the development or phase is expected to be constructed.
- iv. If a new concurrency analysis is conducted with each phase of the development, the list and cost of *TIP* projects and the baseline traffic (without the project) shall be based on the then-current version of Federal Way's *TIP* and the latest traffic counts conducted by Federal Way at the time the new concurrency analysis is completed.

2. Neighborhood Traffic Safety

- A. Design the proposed traffic signal at Northshore Parkway / 42nd Avenue NE intersection to incorporate raised channelization or other similar effective means to prohibit northbound and southbound through-traffic on 42nd Avenue NE (47th Avenue SW in Federal Way);
- B. Install traffic-calming devices, such as speed humps, traffic circles, raised crosswalks and two traffic circles on 47th Avenue SW from Northshore Parkway to SW 325th Way, the specific locations of which shall be determined from the Neighborhood Traffic Safety meeting coordinated and conducted by the Proponent with the affected neighborhood and the City of Federal Way in attendance.

Proposed Action Alternative

Mitigation under the *Proposed Action Alternative* would be similar to mitigation required under the *Proposed Action*, including requirements for neighborhood traffic-calming, frontage improvements, and closure of North Shore Boulevard. Some mitigation tied directly to vehicle trips generated, such as pro rata payments, may be reduced proportionately due to reductions in the anticipated level of traffic generated by the development.

If, when using the methodology described above, a projected on-street parking shortage results in Phase IV (i.e., fewer than 4 parking spaces per 100 lineal feet of right-of-way), the north/south street at the eastern part of Phase IV (the street beginning at Fairwood Boulevard and continuing south to the connection with the proposed 52-foot right-of-way in Phase III) must be constructed to accommodate parallel parking on one side of the street. If this additional parking does not provide enough parking spaces to fulfill the required amount, additional satellite parking areas may be required.

No Action Alternative

No additional mitigation will be required if the North Shore Golf Course continues operation under the *No Action Alternative* scenario.

3.3.7 Significant Unavoidable Adverse Impacts

With the recommended mitigation in place, development of *The Point at Northshore*, the *Proposed Action Alternative*, or the *No Action Alternative* would not result in significant adverse impacts.