Seattle-to-Tacoma Sounder Commuter Rail Easements and Improvements (Easements 3 and 4)

State Environmental Policy Act (SEPA)

Environmental Checklist Addendum

June 2012

Prepared for:



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June 20, 2012

Dear Recipient:

Sound Transit has prepared this State Environmental Policy Act (SEPA) Addendum for the Seattle-to-Tacoma Sounder Commuter Rail Easements and Improvement Project (Easements 3 and 4). This addendum provides additional information and analysis regarding Sound Transit's purchase of Easements 3 and 4 from the BNSF Railway Company for South Sounder Commuter rail. Each easement would provide for one commuter rail round trip between Seattle and Tacoma, for a total increase of two round trip trains. The existing system provides 9 round trip trains per day between Seattle and Tacoma. Two additional trips, for a total of 11, were purchased from BNSF in 2010 with Easements 1 and 2. The purchase of Easements 3 and 4 would add two more round trips, for a total of 13 round trips.

Easements 3 and 4 and associated improvements were analyzed in a SEPA Checklist published in April 2012 (Seattle-to-Tacoma Sounder Commuter Rail Easements and Improvement Project (Easements 3 and 4)). Sound Transit issued a Determination of Nonsignificance (DNS) on April 17, 2012. On May 8, 2012, the City of Auburn filed an appeal of the DNS, citing concerns regarding crossing safety, parking and traffic impacts, ridership growth and impacts, property access, and local permits. This Addendum was prepared to provide additional information and analysis related to the issues raised in the City of Auburn appeal. The analysis confirms the conclusion of the DNS that the project would not result in any significant adverse environmental impacts.

Copies of the Addendum are available for review at Sound Transit offices, many public libraries, and on the Sound Transit website at www.soundtransit.org. For further information about this Addendum or to request a copy, please contact Lauren Swift, Environmental Planner, 401 S. Jackson St., Seattle WA 98104-2826, or 206.398.5301 TTY: 206.398.5410.

Sincerely,

Perry Weinberg

SEPA Responsible Official

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Introduction

Sound Transit prepared this addendum to provide additional information and analysis regarding Sound Transit's purchase of Easements 3 and 4 from the BNSF Railway Company for South Sounder Commuter Rail. This addendum adds to the analysis contained in the State Environmental Policy Act (SEPA) Environmental Checklist and determination of nonsignificance (DNS) issued by Sound Transit in April 2012. In particular, this addendum responds to the comments and the administrative appeal filed by the City of Auburn regarding the potential impacts of Easements 3 and 4 in the City of Auburn. The City of Auburn's comments and appeal focus on the following topics, which are discussed in turn below:

- Safety
- Traffic and Parking
- Ridership Growth and Impacts
- Access, and
- Local Permits

Project Summary

Sound Transit is proposing to exercise its option to purchase two additional train easements from the BNSF Railway to the South Sounder Commuter Rail line. Each easement would provide for one commuter rail round trip between Seattle and Tacoma, for a total increase of two round trip trains daily. The existing system provides 9 round trip trains per day between Seattle and Tacoma. Two additional trips, for a total of 11, were purchased from BNSF in 2010 with Easements 1 and 2. The purchase of Easements 3 and 4 would add two more round trips, for a total of 13 daily round trips. The additional trips made possible by these easements are currently expected to be added as follows: Easement 1 (September 2013), Easements 2 and 3 (December 2016), and Easement 4 (December 2017). Easement 3 is expected to be used for a reverse-peak-direction round trip (southbound in the morning and northbound in the afternoon), but could be a peak-direction trip, depending on demand and availability of equipment.

To accommodate the new commuter rail trips, BNSF railway is planning track improvements within the cities of Tukwila, Renton, and Kent under Easement 3, and within the City of Auburn under Easement 4. Improvements include (1) additional track; (2) track rehabilitation; (3) new high speed turnouts; (4) updates to existing signals at crossings, and construction of new signal facilities including new signals or signal bungalows; and (5) widening two crossings by constructing two new bridges adjacent to existing bridges, one over Longacres Way in Tukwila and one over Mill Creek in Kent. Track improvements would require acquisition of narrow strips of property located adjacent to the east side of the existing BNSF right-of-way in Renton and Kent. The track improvements in Auburn are within the BNSF right-of-way.

Easements 3 and 4 and associated improvements were analyzed in a SEPA Environmental Checklist published in April 2012. Sound Transit issued a Determination of Non Significance (DNS) on April 17, 2012, concluding that the project would have no significant adverse environmental impacts. On May 1, 2012, the City of Auburn submitted comments to Sound Transit on the SEPA Checklist and DNS, and on May 8, 2012, the City filed an administrative appeal of the DNS, citing the concerns identified above. This Addendum was prepared to provide additional analysis and information related to the issues raised in the City of Auburn appeal.

Summary of Conclusions

The analysis contained in this addendum confirms the conclusion of the SEPA Environmental Checklist and DNS that the project would not result in any significant adverse environmental impacts. The additional analysis concludes that:

- The purchase of Easements 3 and 4 would not create new safety issues at track crossings in Auburn:
- Potential additional traffic that could be generated by an estimated 60 new daily boardings would be approximately 19 new peak hour vehicle trips;
- Potential demand for an additional 40 parking spaces is not expected to result in new significant adverse impacts to the existing parking supply;
- Additional at-grade train crossings of Main Street are forecast to cause increased average delay to roadway traffic of between 2 and 12 seconds per vehicle, while added delay at other crossings would be less;
- Levels of service at the Main Street crossing and the Main Street/C Street NW intersection are projected to remain at LOS C or better;
- No loss of access to commercial or residential properties is anticipated; and
- The proposal is not likely to cause significant adverse environmental impacts, and the DNS should not be withdrawn.

Safety

The City of Auburn's appeal asserts that the project would increase the number and seriousness of accidents at the 37th Street NW crossing. According to the City, the existing intersection has had 13 instances in which vehicles at this crossing have damaged or destroyed the warning gates in failing to yield at the crossing. The cause of the problem, according to the City's appeal letter, is the crossing's proximity to the existing traffic signal at 37th Street NW between I Street NW and Emerald Downs Drive. The City completed pre-design work for a revised crossing that includes advanced pre-emption (at a minimum) and would potentially require a new signal on the west side of the tracks (pre-signal). The City also asks for advanced train detection and signal pre-emption at all crossings, safety fencing along right-of-way and four-quadrant gates at 37th, Main, and 3rd.

As stated in the SEPA checklist, approximately 59 trains currently travel the corridor each weekday on average, with four more trains (Easements 1 and 2) to be added in the near future. Easements 3 and 4 would increase the total number of crossings by four per day. Thus, Easements 3 and 4 represent an approximate 6 percent increase in crossings. This is not a significant change in rail traffic for these intersections, and it is well within the variation in freight rail traffic, which has ranged from 24 to 52 trains per day on average in recent years. Thus the safety of these crossings is not expected to be adversely affected by the addition of four trains per day through the crossings.

Moreover, the City of Auburn has identified railroad crossing safety improvements, including sidewalks, four-quadrant gates, advanced signal pre-emption, and a pre-signal at 37th Street NW in its annual Six-Year Transportation Improvements Plan (TIP) and Capital Facilities Plan since prior to December 2009. Based on this, it is standard practice in SEPA evaluations to consider the proposed improvements as part of the background condition likely to be implemented in the timeframe of the TIP, which in this case is

before Easements 3 and 4 would be operational (2016 and 2017, respectively). Because these are solutions to existing problems, and because the current proposal will not make the conditions worse, no significant impacts to crossing safety are expected.

37th Street Crossing

Currently, two tracks cross 37th Street NW at a right angle (see Figure A-1 below). The western edge of B Street NW is approximately 30 feet east of the tracks, leaving room for only one car between the tracks and the intersection. There is a crossing arm on each side of the tracks that lowers when a train is approaching, and the intersection also has flashing lights overhead and to the right-hand side of the roadway. The crossing arm on the eastbound leg of the intersection, west of the tracks, is approximately 100 feet west of the intersection of B Street NW. This requires that eastbound drivers must judge whether they can make it past the tracks and through the intersection, or should stop at the stop line west of the tracks. To ensure that drivers are not trapped on the tracks by the traffic light at B Street, there is a signal pre-emption that permits the intersection to clear before an approaching train arrives.

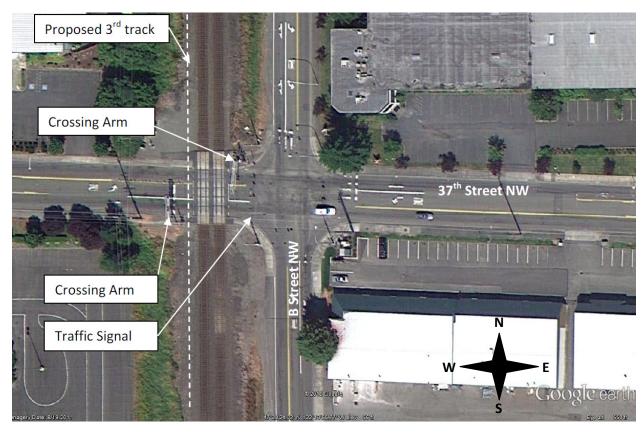


Figure A-1. Aerial photo of 37th Street NW crossing

Auburn has noted that cars occasionally strike the crossing arm or are struck by it as it is being lowered. Although no specific information was provided about the nature of the accidents, it appears that these accidents may occur as a result of people rushing to beat the crossing barrier, attempt to go around one barrier and strike the other one, or because they are stopped on the railroad tracks by the stoplight at B

Street NW. All of these activities are the result of unsafe driver behavior, and such behavior is not directly or indirectly caused by additional trains. The City noted in a meeting with BNSF in 2010 that there was a double-fatality accident at this intersection in 1996, when a westbound driver went around the gates behind a passing northbound train and was hit by a southbound train. While such an incident is tragic, the safety of the intersection cannot be faulted based on this type of aberrant driving behavior.

The distance between B Street and the tracks would not change with the project, since the proposed new third track would be on the west side of the existing tracks and farther away from B Street. Therefore, there would be no reduction in queuing space west of the tracks. This would increase the distance from the B Street NW intersection that eastbound vehicles would have to stop when a train is approaching. BNSF has indicated its willingness to work with the City on its planned safety improvements, such as signal pre-emption timing to provide additional time to clear the intersection, but BNSF has not committed to finance improvements that the City had planned before this proposal was introduced and which are not related to the impacts of this proposal.

The safety of the crossing at 37th Street NW could be improved, as the City has acknowledged in its TIP, but the need for the improvements is related to driver behavior rather than some condition on the tracks that would change as a result of the project. While driver behavior could be improved by additional signals and restrictive barriers, the specific corrective actions proposed by the City relate to existing conditions on the roadway, not to reducing or eliminating a safety impact of the proposed minor increase in rail traffic at this intersection. In addition, railroad crossings are subject to the jurisdiction of the Washington Utilities and Transportation Commission (WUTC), which is responsible for assessing and enforcing public safety standards at railroad crossings (see below).

Main Street Crossing and 3rd Street NW Crossing

The City's appeal letter does not identify any specific deficiency in the safety of the crossings at Main Street or 3rd Street NW, but states that installing advanced train detection and signal pre-emption, fencing along the rail right-of-way to prevent pedestrian crossings, and four-quadrant gates at these locations would be appropriate mitigation. However, lacking any specific identification of a project impact or a safety issue that is caused by or made worse by the proposed additional trains, there is not a significant impact that requires mitigation. *See* WAC 197-11-660(1)(b) ("mitigation measures shall be related to specific, adverse environmental impacts").

Washington Utility and Transportation Commission (WUTC) Review

The WUTC is a state agency that is the "independent, impartial decision maker when warning devices, such as lights and gates, at a public [railroad] crossing are proposed to be changed in any way or the crossing itself is proposed to be physically altered. The commission investigates whether public safety standards are met or maintained by the proposed changes. The commission considers such factors as number and speed of vehicles crossing the railroad tracks; number and speed of trains; the geometry at the crossing (e.g. crossing angle, elevations, width of the crossing, type of crossing surface, number and type of tracks); sight distance for both train and vehicle operators; whether pedestrians use the crossing; and the accident history at the crossing." (WUTC 2012).

BNSF and local jurisdictions rely on this regulatory process to ensure a fair and consistent distribution of costs related to rail crossings that would be altered as a result of its operations. BNSF has prepared a petition to the WUTC for the changes proposed to the 37th Street NW crossing and received comments on that petition from the City of Auburn and the WUTC. That review process has not been completed yet, but it provides another avenue for the City to address the concerns it has raised, and to raise those concerns with a body that regularly oversees rail crossing issues, such as those being alleged by the City in its SEPA appeal. Because these safety crossing issues are being addressed by another regulatory authority, and because the proposal does not make conditions worse, no significant impacts to crossing safety are expected.

Traffic and Parking

The City believes that the two additional trains proposed with Easements 3 and 4 will increase traffic and parking impacts to residential neighborhoods adjacent to the Sounder station and suggests that additional parking is needed at the station. However, as described in the SEPA checklist, ridership demand at the station level is driven largely by regional factors, and not by available train capacity. Regional factors driving ridership demand include population and employment growth, highway congestion, and local factors, such as the availability of alternate transit modes like express bus service and availability of parking near the station. Because this project would not affect any of these major factors driving demand for rail ridership, station area traffic is not expected to increase substantially as a result of this project. Moreover, an analysis of parking availability demonstrates that the modest increase in demand for parking near the station area can readily be accommodated by existing on- and off-street parking. Even making conservative assumptions about ridership increases resulting from the implementation of the additional trips from Easement 3 and 4, parking and traffic impacts are not expected to be significant. The following section provides additional details about ridership growth and the parking and traffic impacts of Easements 3 and 4.

Ridership Growth

Growth in commuter rail ridership and local station boardings is fundamentally driven by five primary factors:

- 1. Population and household growth in station areas where the passengers live (origin station),
- 2. Highway congestion along the corridors served by commuter rail,
- 3. Parking costs at the destination,
- 4. Transit operations (including speed and frequency of service), and
- 5. Ease of access in the origin station areas (comprised of station area parking capacity, local feeder transit service, and development within walking/bicycling distance).

Sound Transit's plan to add two train round trips per day is a reaction to the regional population and employment growth forecasts developed by the Puget Sound Regional Council, as well as to projections of increased congestion and increases in parking costs by the year 2035. Based on Sound Transit ridership modeling projections, each of the above factors contributes different proportions of the ridership growth anticipated by year 2035. At the Auburn Station, boardings are projected to increase from the current level of about 1,000 boardings per day to 2,050 boardings per day by 2035—

approximately 3.17% compound annual growth. Based on Sound Transit's ridership models, the chart in Figure A-2 shows the proportion of that growth attributed to each of the above factors. As shown, the largest factors that will contribute to the added boardings relate to population and household growth, parking costs at the destination (primarily Seattle), and forecast highway congestion. The frequency improvements made possible by Easements 1 and 2 (labeled "Planned Frequency Improvements of Easements 1 & 2" in the chart and already reviewed and approved) are projected to contribute 10% of the added boardings. The new train service allowed by Easements 3 and 4 (labeled "Frequency Improvements of Easement 3 & 4" in the chart in Figure A-2) could contribute up to 6% of the total growth in ridership.

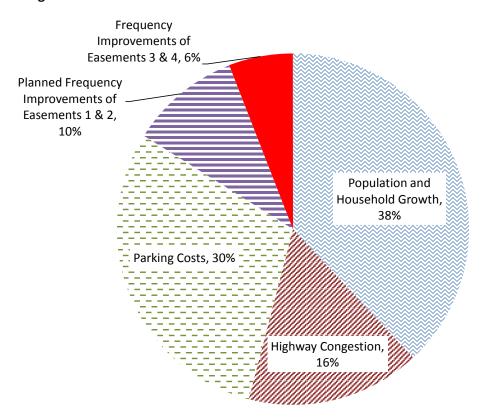


Figure A-2. Contributors to Year 2035 Auburn Station Commuter Rail Ridership Growth

Source: Sound Transit, Auburn Station Ridership Growth Forecasts, June 2012.

It is also important to recognize that the total projected ridership growth, including the new riders from the frequency improvements, will only occur if access conditions are conducive for new riders at the station. Because the existing parking supply at Auburn Station is effectively full, the projected ridership increases will not materialize according to the current access trend, in which a majority of riders drive to and park at the station. Full projected ridership increases would likely only occur if additional parking

¹ Monthly parking demand counts performed by Sound Transit from April 2009 through April 2012 and observations for the *Sounder Stations Flexible Access Study* indicate the parking at the Sounder Auburn Station parking garage is effectively full after the fourth northbound train in the morning.

supply is added, made available in the station area, or occurs at public on-street or off-street parking. Since no new station parking is currently proposed and no new supply is anticipated as part of the proposal to acquire Easements 3 and 4, ridership growth would occur if more riders access the station using a travel mode other than a private vehicle that is parked all day (e.g., walking, bicycling, or bus). Use of alternate travel modes could increase through development of more residential units that are within walking or biking distance to the station; new commercial development that attracts reverse commuters to Auburn; or additional feeder bus transit service that brings riders to and from the station. Changes to modes of station access are expected by year 2035 and are considered in the population and household growth forecasts that are the basis for ridership projections. However, none of these changes to modes of station access would add noticeable new vehicular traffic or circulation impacts to the Auburn Station area.

Historical ridership and boardings data further demonstrate that adding train round trips to the system does not result in increased ridership. Figures A-3 and A-4 show the average weekday boardings from September 2000 through April 2012 and the total monthly boardings from January 2007 through April 2012, respectively. The dates when new trains were added to the system are also noted. Since the system began operating with two trains in September of 2000, Sound Transit has added seven peak direction trains and two off-peak direction trains. Therefore, the graphs show how ridership changed after trains were added to the original two-train system.

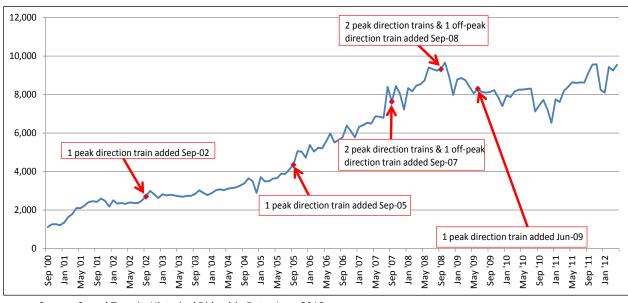


Figure A-3. South Sounder - Average Weekday Boardings (September 2000 to April 2012)

Source: Sound Transit, Historical Ridership Data, June 2012.

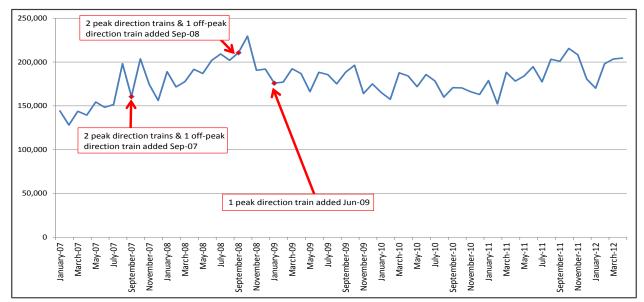


Figure A-4. South Sounder – Total Monthly Boardings (January 2007 to April 2012)

Source: Sound Transit, Historical Ridership Data, June 2012.

As shown, average weekday and average monthly ridership either declined or stayed relatively stable for six months or longer after five trains (four peak direction and one off-peak direction) were added to the South Sounder system. Ridership increased between September 2005 and September 2007 after one train was added. In response to that ridership growth, Sound Transit added three more trains, after which ridership fluctuated downward before beginning to recover in January 2011. The data demonstrate that ridership is related to the regional factors described above, and that the addition of trains does not translate to increased ridership.

Potential Traffic Impacts of Added Ridership

As presented in Figure A-2 in the previous section, the transit-frequency improvements associated with Easements 3 and 4 are projected to contribute about 6% of the total growth—roughly 60 additional daily boardings. According to arrival-mode surveys of passengers boarding commuter rail at Auburn Station, 62% drive alone and park, 13% are dropped off from automobiles, and 4% carpool.² The remaining 21% arrive by bus (16%), walk or bike (4%), or reverse commute on Sounder (1%). Observations from the same study of all existing arrivals (including those arriving to take bus transit) found 51.5% drive and park, 8.5% are dropped off from automobiles, 31% use bus transit, 5.5% walk or bike, and 3.5% arrive by Sounder train.³ Projections for future access indicate the proportion of commuters driving and parking at the station will decline to 47% and drop-off activity would be about 12% by 2030. (The City's appeal letter referenced meeting minutes from a March 22, 2012 Sound Transit Board Meeting that indicated

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² Arrival mode rider surveys of 339 passengers performed during November 2010 for the *Sounder Stations Flexible Access Study*, URS, April 2012.

³ Modal observations of 852 arrivals at Auburn Station performed during November 2010 for the *Sounder Stations Flexible Access Study*, URS, April 2012.

80% of riders require a parking space. This number was a rough high-end approximation of a travel mode for the entire system of stations and does not reflect the actual survey or observation results for the Auburn Station determined as part of the *Sound Stations Flexible Access Study*.)

The number of vehicle trips generated by the increased ridership associated with Easements 3 and 4 was estimated assuming the worst-case condition for driving and parking (the existing mode of travel response of 62% drive and park, 13% drop-off, and 4% carpool), and assuming that parking is available (new riders could purchase parking permits from the City for nearby off-street parking or riders may look for unrestricted on-street parking). It is likely that the potential new riders would be allocated among the planned ten peak direction trips (10% per train with two or three trains per hour). However, if it is assumed that 40% of the new riders board and alight from trains serving the station during the City's morning and evening commuter peak hours (rather than being spread more evenly among eight peak commute direction trains), they could result in 22 new peak hour vehicular trips in the Auburn Station area (15 trips associated with riders that drive and park, 1 carpool trip, and 6 trips—3 in and 3 out associated with riders that are dropped-off and picked up). The new drive-and-park trips would likely be spread among several parking areas and roadways east and west of the station. The six new drop-off trips would occur at or very near the station. Based on these conservative estimates of potential new traffic from Easements 3 and 4, the added riders would generate fewer than ten new peak hour trips on any City of Auburn streets and would not result in significant adverse impacts to local area traffic operations. If new riders that would otherwise prefer to park at the station are unable or unwilling to find parking, they could choose to be dropped-off. If that occurs, assuming 79% of the new riders are dropped off and picked up at the station in automobiles (based on combining the 62% drive and park, 13% drop-off, and 4% carpool described above), they could generate an estimated 38 new PM peak hour trips (19 in and 19 out). While these trips would likely be more concentrated at or near the station, they would be quickly dispersed in several directions to roadways surrounding the station. Under this scenario, the potential new riders are still not expected to result in more than ten peak hour peak direction trips or any significant adverse impacts to City of Auburn roadways or intersections.

Traffic Impacts Associated with At-Grade Train Crossings

The City's appeal also states that the increase in train traffic at three crossings—Main Street, 3rd Street NW, and 37th Street NW—will adversely affect access to the businesses near the crossings. The SEPA checklist described the temporary traffic impacts that will result from construction of some of the project improvements, noting minor traffic diversions but no major interferences to traffic flow during construction. The checklist did not identify any permanent loss of access caused by the project.

Observations of commuter rail train crossings at the three roadways were performed by Heffron Transportation in June 2012. At 37th Street NW, commuter rail trains are traveling at or near full speed. As a result, commuter rail train crossings and the associated crossing closures last for between 42 seconds (for a southbound train) and 46 seconds (for a northbound train). The closures at 3rd Street NW and Main Street are different due to their proximity to the Auburn Station where trains accelerate and decelerate for stops. Northbound trains activate the Main Street and 3rd Street NW railroad crossing gates as they approach the station from the south. While the 3rd Street NE gates raise after the train comes to a stop at the station, the gates at the Main Street crossing remain lowered while passengers

board and alight the train. The Main Street gates are then raised after the northbound train leaves the station and clears the crossing. Once the train begins moving north, the gates at 3rd Street NW are reactivated until the train passes. In total, the Main Street crossing gates are typically down for between 165 and 175 seconds for northbound trains. The 3rd Street NW crossing gates are lowered for an initial period of about 70 seconds as the train approaches Auburn Station, they are raised for about 55 seconds, then are lowered again for about 50 seconds until the train has passed. For southbound trains, the closure times are different as the gates are lowered once for each train that decelerates into the station and are down for shorter durations. At 3rd Street NW, the gates are lowered for about 50 seconds, at Main Street, the gates are lowered for about 72 seconds. Because of the differences in how trains affect grade crossing closures, the addition of two commuter rail trains would affect traffic and delays at the three roadway crossings differently. Currently, the largest number of commuter rail train crossings is five per hour in the morning (between 6:18 and 7:18 A.M.) with three northbound and two southbound, and four in the afternoon (between 5:10 and 6:10 P.M.) with three southbound and one northbound. Since train trips that may be added as a result of Easements 3 and 4 are not expected until 2016 and 2017, the schedule for trains has not yet been determined. However, a preliminary service schedule (from the BNSF-Sound Transit service agreement) indicates that the trains associated with Easements 3 and 4 are not expected to occur during the peak hours described above. Rather, peak direction trips may be added late morning (northbound at about 11:00 A.M.) and early afternoon (southbound at about 2:30 P.M.) and off-peak direction trips may be added at the shoulders of the peak-period service (southbound at about 7:50 A.M. and northbound at about 3:15 P.M.).

In order to evaluate the worst case potential traffic delays associated with additional train crossings in the morning and afternoon peak hours, one additional train crossing was assumed to occur during both the existing morning and afternoon peak hours. A traffic operations simulation model (SimTraffic) was developed to approximate the morning and afternoon without- and with-easements conditions. The simulation model of the Main Street at-grade crossing and the nearby C Street NW intersection was coded to reflect the delays associated with the commuter rail train crossings. The existing AM condition of five train crossings per hour was compared to the condition with a sixth (southbound reverse peak direction) train crossing (for a total of three in each direction). The existing PM condition of four train crossings per hour was compared to the condition with a worst-case fifth (southbound peak direction) train crossing (for a total of four southbound, two northbound).

Five separate simulations of each condition were performed and results were averaged. The simulation results reflect the total average delay per vehicle experienced by all vehicles during each peak hour. For example, delay experienced by drivers during a train crossing is averaged with conditions where drivers experience no delay at the crossing. The analyses indicate that the added train crossings would increase average delays at the Main Street crossing by between about one and five seconds per vehicle (depending on direction of travel). Delays at the C Street NW/Main Street intersection would also increase for the intersection overall (for all vehicles passing through the intersection) and for specific movements. When considering the overall level of service and delay at the intersections (average delay for all vehicles), the average delay is expected to increase by about three seconds per vehicle in the afternoon and by about two seconds per vehicle in the morning. Morning delays are typically lower

because traffic volumes between 6:15 and 7:15 A.M. are lower than the PM peak hour between 5:15 and 6:15 P.M. The total delays during the peak hours for the at-grade crossing relate to intersection level of service (LOS) conditions of LOS C or better both without and with the additional train trips. LOS C is within the range of acceptable conditions as the City of Auburn has established an LOS standard of D or better for the Main Street corridor.

In addition to the overall intersection level of service and delays, simulated delays of individual movements were examined. Northbound and southbound through movements on C Street NW, as well as turns to the west from C Street NW to Main Street would not experience noticeable changes in delay, since these movements proceed during the crossing closures. The simulations indicate that eastbound and westbound through-right movements across C Street NW could experience increases in delay of 3 to 12 seconds per vehicle during the morning peak hour and less than 3 seconds per vehicle in the afternoon. The simulations indicate that turns to the east from C Street NW could experience increases in average delay of 2 to 8 seconds per vehicle during both morning and afternoon peak hours. Some of the delay increases would occur when vehicles are stopped and waiting for the crossing to reopen while some of the delay would occur as the queues dissipate after the crossing re-opens. The simulations indicate that all of the movements would continue to operate at LOS D or better, similar to existing conditions.

The analyses indicate additional train crossings that could occur as a result of Easements 3 and 4 would not result in significant adverse impacts to traffic delay or traffic operations along the Main Street corridor. Since the added crossing closures at 3rd Street NW and 37th Street NW would be much shorter than the ones evaluated at Main Street and since roadway traffic volumes on these roadways are typically lower than on Main Street, the additional crossing closures are also not expected to result in any significant adverse impacts to traffic operations or delay along those roadways. These at-grade crossings are expected to continue operating with delay levels comparable to existing LOS C or better conditions during peak hours with Easements 3 and 4. Based on the analysis described above and as described in the SEPA Checklist, the addition of two additional round trips trains is not expected to result in significant traffic delays at the three at-grade crossings.

Potential Parking Impacts of Added Ridership

As presented above, the transit frequency improvements associated with Easements 3 and 4 are projected to contribute about 6% of the total ridership growth—roughly 60 additional daily boardings. Assuming again that existing access trends apply to the new riders resulting from Easements 3 and 4 and that parking is available, 62% could drive alone and park in the station area and 4% could carpool. If parking is assumed to be available, these additional riders could generate about 40 parked cars.

A detailed parking utilization study was performed in June 2012 by Heffron Transportation in the area surrounding the Auburn Station (see attached technical memorandum). The study area encompassed on-street and off-street parking within at-least ¼ mile of the station. The study found that many of the

⁴ Arrival mode rider surveys performed during Nov. 2010 for the *Sounder Stations Flexible Access Study*, URS, April 2012.

block faces within the study area have signed parking restrictions and that there are a variety of parking restrictions within the study area, although most limit durations to two hours. The parking supply survey determined that there are a total of 744 on-street parking spaces within a quarter mile of the Auburn Station. Of those, 290 spaces have some sort of restriction on use; 454 spaces are unrestricted. Demand counts performed midday on two weekdays found that the restricted parking spaces were 45% utilized, the unrestricted spaces were 61% utilized, and overall parking was 55% utilized. An average of 334 spaces were unused (159 restricted, and 175 unrestricted) within the overall study area. The study concluded that some of the unrestricted parking within the study area is likely being used as parking by commuter rail transit passengers. However, this activity is not significantly impacting the availability of short-term or long-term parking in the larger study area. Off-street parking within the study area was also observed. Midday weekday observations of 15 parking lots with a total of 670 spaces noted 44% utilization. These observations indicate that the City of Auburn and the Auburn Downtown Association effectively manage the existing public off-street supply with time restrictions and permit requirements limiting the potential for parking impacts from transit commuters.

Since the existing Sounder Auburn Station parking facilities areas are effectively full, the additional parking demand that could result from Easements 3 and 4 would likely occur on-street in unrestricted spaces surrounding the station or could occur in off-street lots, if riders elect to purchase permits from the City of Auburn. If all the new the demand were to occur at unrestricted on-street spaces, the utilization rate of study-area unrestricted on-street parking could increase from 61% to about 70%; overall utilization of on-street parking could increase from 55% to about 60%. Since substantial amounts of restricted and unrestricted parking supply would remain, the additional potential demand generated by frequency improvements associated with Easements 3 and 4 would not represent a significant adverse impact to parking. However, the additional parking demand would most likely occur at spaces closest to the station and could be considered a nuisance and inconvenience to those affected residents, customers, employees, or business owners that rely on unrestricted on-street parking.

Other regional or economic factors not related to Easements 3 and 4 (such as fluctuations in fuel prices, regional or local population and employment growth, and freeway congestion) are more likely to influence parking activity in the Auburn Station area and are more likely to be noticeable to neighbors of the Auburn Station. Since the City has effectively managed its on-street parking supply with time restrictions and permits, these measures could be extended further to areas affected by continued commuter rail parking activity. If additional restrictions are imposed that eliminate the commuter rail parking opportunities (such as time limits, or residential or other permit types), additional riders would either purchase permits from the City of Auburn to park in designated off-street lots, change modes to access the station (to feeder transit, Metro VanShare, drop-off/pick-up, or walk/bike), or would not board at the Auburn Station (instead driving to another station or to their destination).

Cumulative Impacts

Many of the claims in the City's appeal relate to growth in rail traffic generally. The Washington State 2010-2030 Freight Rail Plan (November 2009) estimated that freight tonnage would increase by two to three percent per year through 2030. The Washington State Long-Range Plan for Amtrak Cascades (February 2006) projected that by the year 2023, travel on Amtrak in the project corridor could increase

from the current 10 Amtrak trains per day to 23 trains per day. These potential increases in rail traffic would occur with or without the proposed project.

The project improvements could enable BNSF to run more freight trains, however BNSF sees the improvements as primarily preserving capacity while accommodating commuter and passenger rail growth. BNSF has no plans to do so at this time, but may increase trains during improved economic conditions.

The addition of the two round trip commuter trains under the proposed project (and the previous two round trip commuter trains under the Easements 1 and 2 project) will contribute to incremental increases in at-grade crossing delays, diesel PM emissions, and noise impacts along the corridor; however, these effects are minor. Although some freight trains are likely to operate during the times of operation of commuter trains, a greater percentage of freight traffic is scheduled before and after the peak morning and afternoon commuter periods. In Auburn, for those freight trains that do operate when commuter trains are running, the addition of the third track would allow two freight trains to pass while commuter rail trains are also running, which should contribute to a small reduction in total delay time and the total number of times the barriers must be lowered at intersections, compared to running same number of freight trains sequentially.

Access

In its appeal of the SEPA Checklist, the City asserts that the project would reduce accessibility at existing access points for commercial and residential properties located adjacent to the crossings at 3rd Street NW and West Main Street, including Americans with Disabilities Act (ADA) accessibility issues and concerns about steep grades affecting private driveway access. These concerns are addressed below.

Access to properties at 3rd Street NW

No significant impacts are expected to the properties on 3rd Street NW. All of the track improvements would be within BNSF right-of-way, therefore any site access issues are subject to agreements between property owners and BNSF. The properties cited as being adversely affected by the addition of the third track are on the southwest corner of the crossing and do not currently have legal access over BNSF property. All these properties abut public streets so alternative access could be obtained, if necessary. However, BNSF is preparing agreements to allow continued use of their right-of-way for access, and BNSF's engineers have indicated that the addition of a third track will not preclude such access. The cited concern about grades could stem from the problem of the residents storing trailers or vehicles on the informal driveway developed within BNSF right-of-way, forcing residents of the northern property or properties to drive around. This condition could be controlled by the residents themselves, or by BNSF placing restrictions on the easements. The barrier along the center of 3rd Street NW is designed to prevent left turns or lane changes at the rail crossing, restricting the driveway on the BNSF right-of-way to right-in, right out. This restriction would remain in place with the additional track.

The roadway approach to these residences at 3rd Street NW is nearly flat so no ADA access issues are anticipated to result from the project's track improvements. The City has indicated in its past TIPs that ADA-related sidewalk improvements are planned for this location and acknowledged in its 2010 meeting with BNSF regarding the WUTC petition regarding the third track that these would be a City responsibility.

Auburn's appeal letter claims that increased rail traffic would adversely affect access to these properties and therefore property values and "overall quality of life and enjoyment of these properties". As noted above, access to these residences is not expected to be significantly affected by either addition of the third track or the additional number of trains. The residences appear to have been built after the railroad was constructed and have remained for many decades despite substantial increases and decreases in rail traffic, especially freight traffic. As such, the changes resulting from the addition of four commuter rail trains daily is not likely to change the overall quality of life and enjoyment of these properties. Property value changes are not considered environmental effects under SEPA, but these, too, are not likely to be adversely affected, since the primary market value of these properties is their land value as light industrial property. The proposed corrective measures assume that there would be steep grades created by the addition of the 3rd track, however, no steep grades are anticipated. Because there would be no steep grades created, there would be no ADA impact or impact on the three properties that requires mitigation. And, as discussed in the SEPA checklist and below, there would be only minor impacts to access during project construction, with access maintained or coordinated the property owner.

During construction of the third track, access to 3rd Street NW may be interrupted for short periods, but site access will be available for all properties. BNSF or their contractors will coordinate any potential temporary reduction in access with the property and business owners. This type of temporary inconvenience is common in urban settings undergoing new development and is unlikely to significantly affect the use of these properties.

Access to properties at Main Street

No significant impacts are expected to the properties on Main Street. The City of Auburn notes that there are three businesses adjacent to and having access onto Main Street near the rail crossing. The north end of the Sounder Commuter Rail station is also adjacent to Main Street. Of the three businesses, two have paved access to C Street NW, and the other has paved access to B street NW. On both the east and west approaches to the intersection, an existing median curb is designed to prevent cars from driving around the rail crossing barrier arm when it is down. This existing median also restricts left turns from the adjacent driveways. On the east side of the track the median restricts all left turns from Main Street at the intersection with B Street NW. On the west side of the tracks, the median only blocks a portion of the driveways so left turns are still possible into and out of the adjacent properties.

During construction of the third track, access to Main Street may be interrupted for short periods, but site access will be available for all properties. BNSF or its contractors will coordinate any potential temporary reduction in access with the property and business owners. This type of temporary

inconvenience is common in urban settings undergoing new development and is unlikely to significantly affect the financial viability of these businesses.

There are no permanent changes proposed by BNSF to the access to these properties, and no steep grades would be created. After construction of the third track, all existing access points would be available, and there would not be steep grades created as suggested in the appeal letter from the City. Because there would be no steep grades or other impediments created, there would be no ADA impact or other impact on the three properties that requires mitigation.

Local Permits

The City of Auburn's appeal letter seeks acknowledgement from Sound Transit that local permits may be required from the City if the proposed improvements result in impacts beyond the BNSF right-of-way.

Currently, all of the improvements anticipated to be located in the City of Auburn occur on BNSF property or within the BNSF right-of-way. Rail line construction projects and associated improvements are subject to the exclusive jurisdiction of the federal Surface Transportation Board (STB). Under these circumstances, local permits from the City of Auburn are not anticipated to be required.

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TECHNICAL MEMORANDUM

Project: Seattle-to-Tacoma Sounder Commuter Rail

Easements & Improvements

Subject: Auburn Station Area Parking Utilization Study

Date: June 15, 2012

Author: Tod S. McBryan, P.E. – Principal

This technical memorandum presents a parking utilization study of the area surrounding the Auburn Commuter Rail Station. This study was prepared to provide additional information related to Sound Transit's proposed purchase of Easements 3 & 4 from the BNSF Railway for potential future operation of two round-trip train trips between Tacoma and Seattle. This memorandum is intended to support the SEPA Checklist Addendum prepared for the project.

1. Study Area and Methodology

The study area for this parking utilization analysis was determined based on review of the existing Auburn Commuter Rail Station and the surrounding area. The study area is intended to capture the roadways most likely to be used by commuters for overflow parking during times when the Auburn Station Parking Garage is full. The study area includes all roadways within ½ mile of the corners of the Auburn Station and is roughly bounded by State Route 18 (SR 18) to the south, Auburn Way S to the east, 3rd Street NE/NW to the north, and the UP Railroad (west of H Street NW) to the west. The study area is shown in Figure 1 (attached).

In order to evaluate the existing parking conditions near the station, parking supply was first determined for all roadways within the defined study area. The supply reflects the total number of spaces available for parking, and excludes areas where parking is prohibited, restricted, or not possible due to physical constraints. Then, on-street parking demand counts were performed on two separate days: Tuesday, June 5 and Wednesday June 6, 2012. Parking supply and demand counts were also performed the same days for several off-street parking lots within the study area. Parking utilization was calculated as the percent of the total spaces occupied (demand ÷ supply).

1.1. On-Street Parking Supply

This section documents the existing on-street parking supply within the defined study area. Since most streets within the study area do not have delineated striping to define the exact numbers of on-street parking spaces, the on-street supply was determined using measurements of available street edges (e.g. curb length or shoulder length) where legal parking exists.

The study area was separated into individual block faces. A block face consists of one side of a street between two cross-streets. For example, the north side of W Main Street between A Street SW and N



Division Street is one block face (identified as block face 'CA'). The study area and the designated block faces are shown on Figure 2 (attached).

Each block face was measured and analyzed to determine the number of available on-street parking spaces. First, common street features—such as driveways, fire hydrants, and special parking zones—were noted. Second, certain distances adjacent to the common street features were noted. No on-street parking capacity was assumed within 30 feet of a signalized or marked intersection, 20 feet of an uncontrolled intersection, 15 feet on either side of a fire hydrant, or five feet on either side of a driveway or alley. The remaining unobstructed lengths of street between street features were converted to legal on-street parking spaces using the following chart.

Table 1. Number of Legal On-Street Parking Spaces

Unobstructed Distance	Number of Parking Spaces	Unobstructed Distance	Number of Parking Spaces	Unobstructed Distance	Number of Parking Spaces
0 – 15 feet	0	206 – 221 feet	11	412 – 433 feet	22
16 – 31 feet	1	222 – 243 feet	12	434 – 449 feet	23
32 – 53 feet	2	244 – 259 feet	13	450 – 471 feet	24
54 – 69 feet	3	260 – 281 feet	14	472 – 487 feet	25
70 – 91 feet	4	282 – 297 feet	15	488 – 509 feet	26
92 – 107 feet	5	298 – 319 feet	16	510 – 525 feet	27
108 – 129 feet	6	320 – 335 feet	17	526 – 547 feet	28
130 – 145 feet	7	336 – 357 feet	18	548 – 563 feet	29
146 – 167 feet	8	358 – 373 feet	19	564 – 585 feet	30
168 – 183 feet	9	374 – 395 feet	20	586 – 601 feet	31
184 – 205 feet	10	396 – 411 feet	21	602 – 623 feet	32

Source: Conversion rates derived by Heffron Transportation from the City of Seattle's Client Assistance Memorandum #117.

Many of the block faces within the study area have signed parking restrictions. For example, the segments of Main Street from west of Division Street to Auburn Way S are restricted to two-hour parking durations from 9:00 A.M. to 6:00 P.M. Monday through Saturday. There are a variety of parking restrictions within the study area, although most limit durations to two hours. Some spaces along the east side of D Street NW north of W Main Street are signed as permit parking only.

The parking supply survey determined that there are a total of 744 on-street parking spaces within the defined study area surrounding the Auburn Station. Of those, 290 have some sort of restriction on use (such as time duration, permit, loading, disabled permit, police vehicle, or prosecutor). A total of 454 spaces are unrestricted, which means that there are no signed limits related to the type of vehicle or time that a vehicle can park. Figure 3 (attached) shows the study-area block faces and the types of parking restrictions in place.

1.2. On-Street Parking Demand and Utilization

Existing parking demand data were collected in June 2012 to document the use of on-street and off-street parking capacity within the surrounding area. Demand counts were performed at 11:00 A.M. on two days (June 5 and 6, 2012). The results of the parking demand surveys are summarized in Table 2. Detailed summaries of the on-street parking demand for each block face for both counts are attached. On-street parking utilization was calculated as the number of on-street parked vehicles divided by the number of



legal on-street parking spaces within the study area or on a specific block face. Overall parking utilization rates were determined for the aggregated restricted and unrestricted spaces.

As shown, utilization of the restricted and unrestricted spaces was similar on both days. The average of the two counts found that the restricted parking spaces were 45% utilized, the unrestricted spaces were 61% utilized, and overall, parking was 55% utilized. The counts indicate that there was an average of 334 unused spaces (159 restricted, and 175 unrestricted) within the overall study area. Figure 4 (attached) shows how parking utilization rates were distributed throughout the study area. This figure demonstrates that the time limits on parking immediately east and north of the station effectively preserve short-term parking for the downtown vicinity. Unrestricted parking supply near the station experienced higher utilization rates; however, there is still substantial unrestricted parking supply available both east and west of the station. Based on the count results, it is likely that some of the unrestricted parking within the study area, particularly that closest to the station, is being used as parking by transit passengers. However, this activity is not significantly impacting the availability of short-term or long-term parking in the larger study area.

Table 2. Parking Demand Survey Results – June 2012

Time Period Surveyed	Parking Supply	Total Vehicles Parked	% Utilization	Unused Spaces
Tuesday, June 5, 2012, 11:00 A.M.				
Restricted On-Street Parking	290	136	47%	154
Unrestricted On-Street Parking	454	287	63%	167
Total On-Street Parking	744	423	<i>57%</i>	321
Wednesday, June 6, 2012, 11:00 A.M.				
Restricted On-Street Parking	290	125	43%	165
Unrestricted On-Street Parking	454	271	60%	183
Total On-Street Parking	744	396	53%	348
Average of Two Counts 11:00 A.M.				
Restricted On-Street Parking	290	131	45%	159
Unrestricted On-Street Parking	454	279	61%	175
Total On-Street Parking	744	410	55%	334

Source: Heffron Transportation, Inc., June 2012.

1.3. Off-Street Parking Supply, Demand and Utilization

A sampling of off-street parking lots was also examined within the study area to determine if they might be adversely impacted by over-flow transit passenger parking demand from the Auburn Station. A total of 15 off-street lots were observed during the same two days of the on-street parking counts described previously. Within those 15 lots, there were a total 670 parking spaces. Several of the lots are signed "City of Auburn 3-Hour Parking Monday through Friday" or "City of Auburn Permit Parking." The number of parked cars within these lots was 303 on Tuesday (45% utilized) and 287 (43% utilized) on Wednesday. The location of the off-street parking lots observed and the average utilization is shown on

Seattle-to-Tacoma Sounder Commuter Rail Easements & Improvements Auburn Station Area Parking Utilization Study



Figure 5 (attached). Two of the smaller lots (identified as G and O on the figure) were near capacity on one of the days; however, the remainder of the lots had surplus capacity available.

There are also two large parking facilities that were observed but not explicitly counted during the observations. The Auburn Regional Medical Center has a five-story parking garage that appeared to be about 75% utilized. A four-story parking garage located on the north side of 1st Street NW between Division Street and A Street NW has about 300 spaces, but also had a garage attendant on-duty during the observations, so not demand was recorded.

While it may be possible that some off-street parking could be used by transit riders, the City of Auburn and the Auburn Downtown Association seem to effectively manage the existing public off-street supply with time restrictions, permit requirements, or an attendant.

2. Conclusions

The following lists the key finding and conclusions from the data collection and analyses:

- Many of the block faces within the study area have signed parking restrictions.
- There are a variety of parking restrictions within the study area, although most limit durations to two hours.
- The parking supply survey determined that there are a total of 744 on-street parking spaces within a quarter mile of the Auburn Station. Of those, 290 spaces have some sort of restriction on use; 454 spaces are unrestricted.
- The counts found that the restricted parking spaces were 45% utilized, the unrestricted spaces were 61% utilized, and overall, parking was 55% utilized.
- The counts indicate that there was an average of 334 unused spaces (159 restricted, and 175 unrestricted) within the overall study area.
- Some of the unrestricted parking within the study area may be used by transit passengers. However, this activity is not significantly impacting the availability of short-term or long-term parking in the larger study area.
- There are 15 off-street lots with a total 670 parking spaces were observed and found to be about 44% utilized over the two day counts.
- The observations indicate that the City of Auburn and the Auburn Downtown Association effectively manage the existing public off-street supply with time restrictions and permit requirements limiting the potential for parking impacts from transit commuters.

Attachments: Figure 1. Parking Utilization Study Area

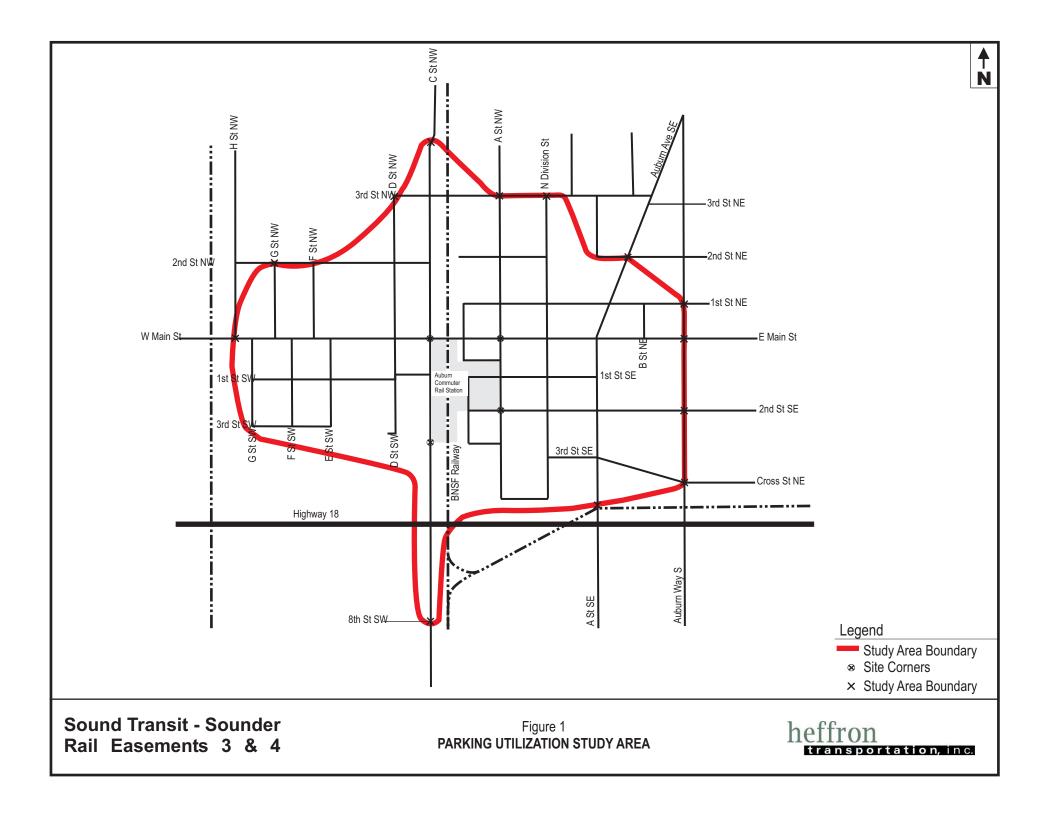
Figure 2. Study Area Block Faces

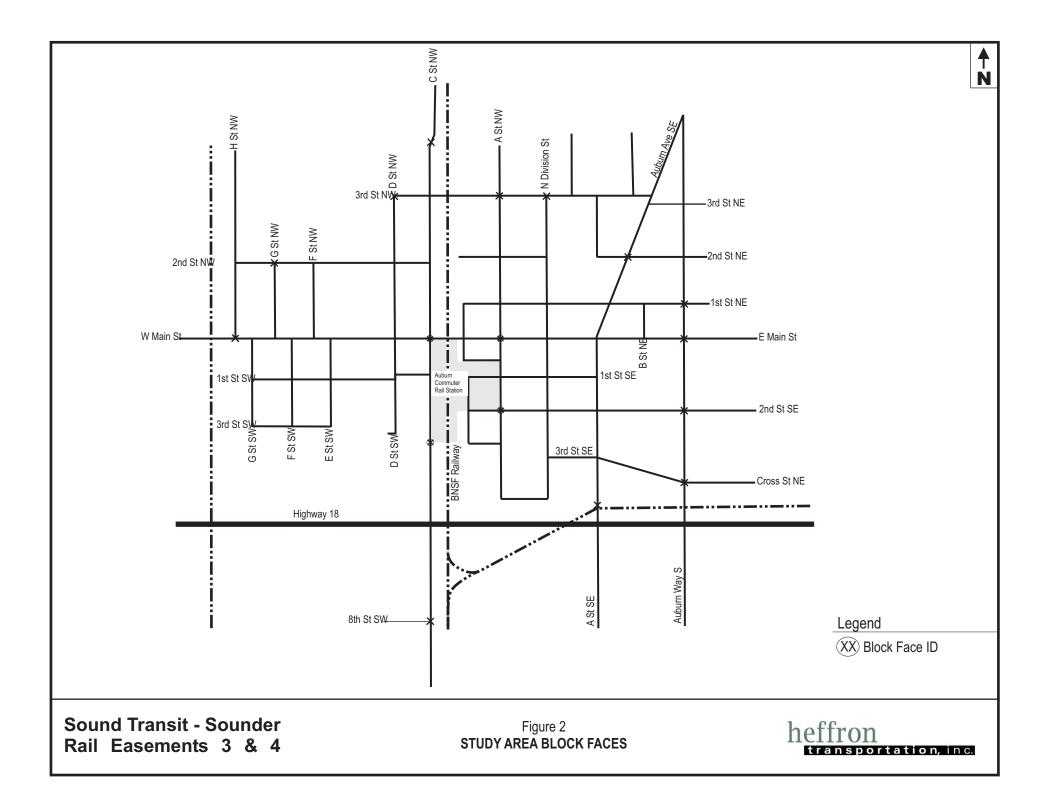
Figure 3. Study Area On-Street Parking By Type Figure 4. Study Area On-Street Parking Utilization Figure 5. Study Area Off-Street Parking Utilization

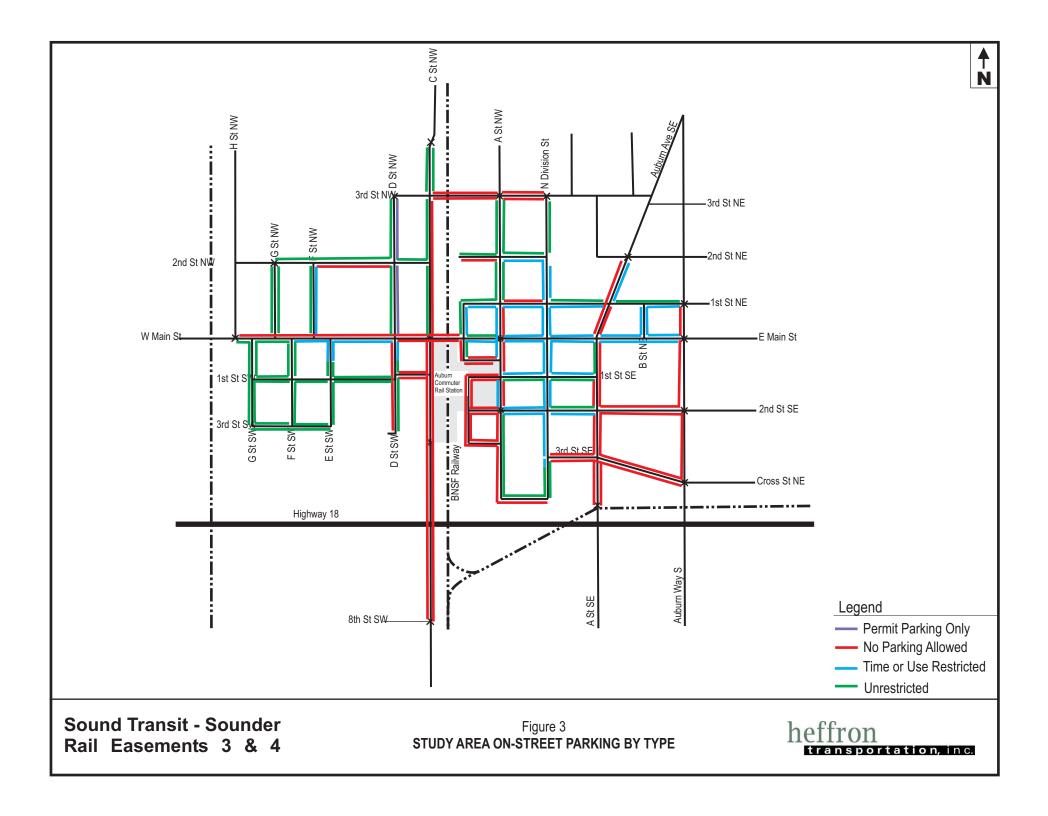
On-street Parking Utilization Study – Block Face Demand Details

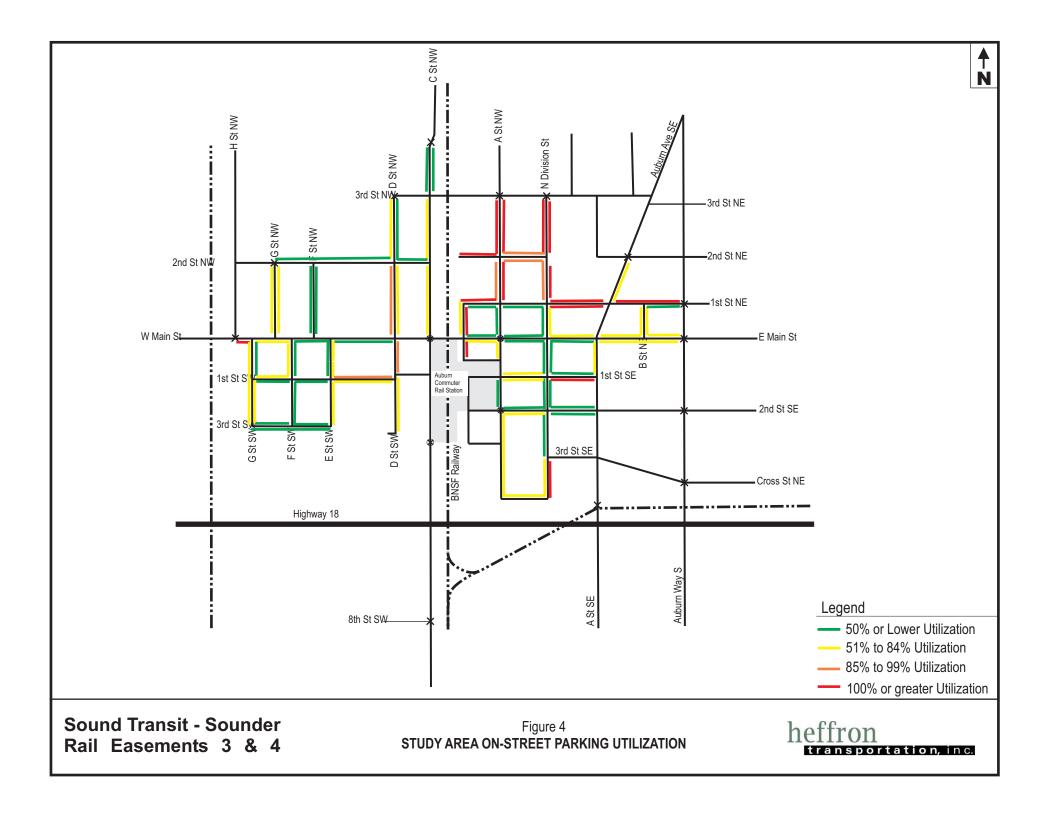
- 4 -

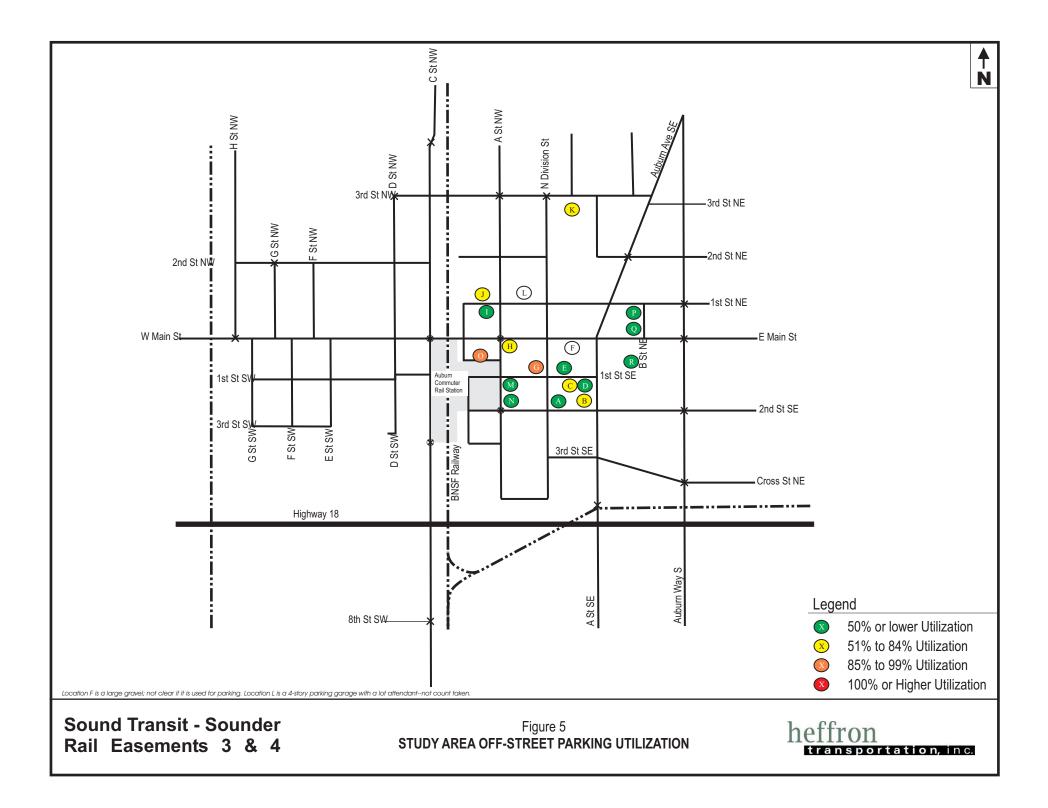
Auburn Station Area On-Street Parking Utilization Study - F-06152012.docx











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							Tuesday	Tuesday	Wednesday	Wednesday
			0.1.	Total	Tuesday	Wednesday	Demand on	Demand on	Demand on	Demand on
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AA	C St NW	North of 3rd St NW	W	1	0	0	0	0	0	0
AB	C St NW	North of 3rd St NW	E	1	0	0	0	0	0	0
AC AD	3rd St NW 3rd St NW	West of C St NW West of C St NW	N S	0	0	0	0	0	0	0
AE	D St NW	North of 2nd St NW	W	16	11	10	0	11	0	10
AF AG	D St NW C St NW	North of 2nd St NW North of 2nd St NW	E W	11 7	4 5	2	4 0	0 5	2 0	0
AH	A St NW	North of 2nd St NW	w	8	8	8	0	8	0	8
AI AJ	A St NW N Division St	North of 2nd St NW North of 2nd St NW	E W	9	9	9	0	9	0	9
AK	2nd St NW	West of F St NW	S	0	0	0	0	0	0	0
AL	2nd St NW 2nd St NW	West of D St NW	N	13	1	1	0	1	0	1
AM AN	2nd St NW 2nd St NW	West of C St NW West of C St NW	N S	2	0	2	0	0	0	2
AO	2nd St NW	West of A St NW	N	5	7	6	0	7	0	6
AP AQ	2nd St NW 2nd St NW	West of N. Division St West of N. Division St	N S	8	8	5 8	0	8	0	5 0
AR	N Division St	North of 1st St NE	E	17	18	17	6	12	6	11
AS AT	G St NW G St NW	North of W. Main St North of W. Main St	W E	15 5	10 3	8	0	10 3	0	8 4
AU	F St NW	North of W. Main St North of W. Main St	W	10	1	1	0	1	0	1
AV	F St NW	North of W. Main St	E	11	0	0	0	0	0	0
AW AX	D St NW D St NW	North of W. Main St North of W. Main St	W	18 13	17 7	15 7	0 7	17 0	0 7	15 0
AY	C St NW	North of W. Main St	w	8	6	5	0	6	0	5
AZ BA	A St NW A St NW	North of 1st St NW North of 1st St NW	W	11 8	10 7	10 8	0	10 7	0	10 8
BB	N Division St	North of 1st St NW	w	10	8	9	8	0	9	0
BC	Auburn Ave SE	North of 1st St NE	E	3	1	2	1	0	2	0
BD BE	1st St NW 1st St NW	West of A St NW West of A St NW	N S	2	2 0	0	0	2 0	0	0
BF	1st St NW	West of N. Division St	S	6	3	2	3	0	2	0
BG BH	1st St NE 1st St NE	East of N. Division St East of N. Division St	N S	1 6	7	7	0 7	1 0	0 7	1 0
BI	1st St NE	East of Auburn Ave SE	S	ő	0	ó	0	0	0	0
BJ	1st St NE	East of Auburn Ave SE West of Auburn Way S	N	4	3 4	4 3	0	3	0	4
BK BL	1st St NE B St NW	North of W. Main St	S W	8 10	8	8	4 0	0	3	0
BM	B St NW	North of W. Main St North of W. Main St	E	3	2	3	2	0	3	0
BN BO	A St NW N Division St	North of W. Main St North of W. Main St	W	5 6	2	1 3	2	0	1 3	0
BP	N Division St	North of W. Main St	E	6	5	5	5	0	5	0
BQ BR	B St NE B St NE	North of E. Main St North of E. Main St	W E	5 5	5 3	3 5	5 3	0	3 5	0
BS	W Main St	West of G St SW	S	4	5	4	0	5	0	4
BT	W Main St	West of F St SW	S	6	4	4	0	4	0	4
BU BV	W Main St W Main St	West of E St SW West of D St NW	S	6 8	2	0	2	0	0	0
BW	B St SW	South of W. Main St	E	2	3	3	0	3	0	3
BX BY	W Main St W Main St	West of A St NW West of A St NW	N Z	1 4	0	0	0	0	0	0
BZ	A St SW	South of W. Main St	w	6	5	3	5	0	3	0
CA CB	W Main St	West of N. Division St	N	8 7	2	1	2	0	1	0
CC	W Main St E Main St	West of N. Division St East of N. Division St	S N	9	2 7	3 5	2 7	0	3 5	0
CD	E Main St	East of N. Division St	S	8	6	2	6	0	2	0
CE CF	E Main St E Main St	East of Auburn Ave SE East of Auburn Ave SE	N S	10 16	9	7 10	9	0	7 10	0
CG	E Main St	West of Auburn Way S	N	5	3	5	3	0	5	0
CH CI	G St SW G St SW	South of W. Main St South of W. Main St	W E	19 8	10 4	10 4	0	10 4	0	10 4
CJ	F St SW	South of W. Main St	w	10	8	7	0	8	0	7
CK	F St SW	South of W. Main St	E	7	0	0	0	0	0	0
CL CM	E St SW E St SW	South of W. Main St South of W. Main St	W E	12 15	4 10	3 7	0	4 10	0	3 7
CN	D St SW	South of W. Main St	E	8	8	6	2	6	4	2
CO CP	A St SW S Division St	North of 1st St SE South of W. Main St	W	0 11	0 2	0	0 2	0	0	0
CQ	S Division St	South of W. Main St	E	4	0	1	0	0	1	0
CR CS	A St SE 1st St SW	South of E. Main St East of G St SW	W N	5 9	4 6	3 7	0	4 6	0	3 7
CT	1st St SW	East of G St SW	S	13	6	5	0	6	0	5
CU	1st St SW 1st St SW	East of F St SW East of F St SW	N S	0 7	0	0	0	0	0	0
CW	1st St SW 1st St SW	East of E St SW	N N	8	7	7	0	7	0	7
CX	1st St SW	East of E St SW	S	12	9	9	0	9	0	9
CY CZ	1st St SW 1st St SW	West of S. Division St West of S. Division St	N S	6 10	4 8	3 8	4 0	0	3 0	0
DA	1st St SE	West of A St SE	N	6	1	1	1	0	1	0
DB DC	1st St SE G St SW	West of A St SE South of 1st St SW	S E	3 11	4 5	5 7	0	4 5	0	5 7
DD	F St SW	South of 1st St SW	W	0	0	0	0	0	0	0
DE	F St SW	South of 1st St SW	E	15	4	3	0	4	0	3
DF DG	E St SW E St SW	South of 1st St SW South of 1st St SW	W E	0 12	0 8	0 7	0	0	0	0 7
DH	D St SW	South of 1st St SW	E	39	19	20	0	19	0	20
DI DJ	A St SW S Division St	South of 1st St SW South of 1st St SW	W	11 12	5 4	4 2	5 4	0	4 2	0
DK	S Division St	South of 1st St SW	E	4	0	0	0	0	0	0
DL DM	3rd St SW 3rd St SW	East of G St SW	N	2	0	0	0	0	0	0
DM DN	3rd St SW 3rd St SW	East of G St SW East of F St SW	S N	20 10	0	0	0	0	0	0
DO	2nd St SW	West of S. Division St	N	1	0	0	0	0	0	0
DP DQ	2nd St SW 2nd St SE	West of S. Division St West of A St SF	S N	7 4	4 2	5 2	4	0 2	5 0	0 2
DR	2nd St SE	West of A St SE	S	5	0	0	0	0	0	0
DS DT	A St SW S Division St	South of 2nd St SW South of 2nd St SW	E W	6	4 0	5 0	0	4 0	0	5 0
DU	S Division St	South of 3rd St SE	W	8	6	5	0	6	0	5
DV	S Division St	South of 3rd St SE	E	4	3	4	0	3	0	4
	TOTAL		1	744	423	396	136	287	125	271