

# STATE ENVIRONMENTAL POLICY ACT (SEPA) DETERMINATION OF NON-SIGNIFICANCE

For more information about this project visit [www.redmond.gov/landuseapps](http://www.redmond.gov/landuseapps)

## PROJECT INFORMATION

**PROJECT NAME:** Downtown Park Master Plan

**SEPA FILE NUMBER:** SEPA-2015-00406

### **PROJECT DESCRIPTION:**

Downtown Park Master Plan on a two acre site at 16101 Redmond Way, the northeast corner of Cleveland St. and 161 Ave. NE. This park will serve as a neighborhood park and gathering place for events and performances.

**PROJECT LOCATION:** 16101 Redmond Way - Entire Site

**SITE ADDRESS:** 0 No Address  
REDMOND, WA 98052

**APPLICANT:** Betty Sanders

**LEAD AGENCY:** City of Redmond

The lead agency for this proposal has determined that the requirements of environmental analysis, protection, and mitigation measures have been adequately addressed through the City's regulations and Comprehensive Plan together with applicable State and Federal laws.

Additionally, the lead agency has determined that the proposal does not have a probable significant adverse impact on the environment as described under SEPA.

An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. **This information is available to the public on request.**

## CITY CONTACT INFORMATION

**PROJECT PLANNER NAME:** Cathy Beam

**PHONE NUMBER:** 425-556-2429

**EMAIL:** [cbeam@redmond.gov](mailto:cbeam@redmond.gov)

## IMPORTANT DATES

### **COMMENT PERIOD**

Depending upon the proposal, a comment period may not be required. An "**X**" is placed next to the applicable comment period provision.

'**X**' There is no comment period for this DNS. Please see below for appeal provisions.

This DNS is issued under WAC 197-11-340(2), and the lead agency will not make a decision on this proposal for 14 days from the date below. Comments can be submitted to the Project Planner, via phone, fax (425)556-2400, email or in person at the Development Services Center located at 15670 NE 85th Street, Redmond, WA 98052. **Comments must be submitted by .**

### **APPEAL PERIOD**

You may appeal this determination to the City of Redmond Planning Department, Redmond City Hall, 15670 NE 85th Street, P.O. Box 97010, Redmond, WA 98073-9710, **no later than 5:00 p.m. on 03/27/2015**, by submitting a completed City of Redmond Appeal Application Form available on the City's website at [www.redmond.gov](http://www.redmond.gov) or at City Hall. You should be prepared to make specific factual objections.

**DATE OF DNS ISSUANCE:** March 13, 2015

**For more information about the project or SEPA procedures, please contact the project planner.**

**RESPONSIBLE OFFICIAL:** Robert G. Odle  
Planning Director

SIGNATURE: \_\_\_\_\_

**RESPONSIBLE OFFICIAL:** Linda E. De Boldt  
Public Works Director

SIGNATURE: \_\_\_\_\_

**Address:** 15670 NE 85th Street Redmond, WA 98052



## CITY OF REDMOND

### ENVIRONMENTAL CHECKLIST

#### Non-Project Action

#### Purpose of Checklist:

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

#### Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply" and indicate the reason why the question "does not apply". It is not adequate to submit responses such as "N/A" or "does not apply"; without providing a reason why the specific section does not relate or cause an impact. Complete answers to the questions now may avoid unnecessary delays later. If you need more space to write answers attach them and reference. The references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively due to the fact this is a non-project action.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. When you submit this checklist the City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

For Agency Use Only

Planner Name

C Beam

Date of Review

3/4/15

To be completed by applicant	Evaluation for Agency Use only
<p><b>A. BACKGROUND</b></p> <p>1. Name of proposed project, if applicable: Redmond Downtown Park Master Plan</p> <p>2. Name of applicant: Betty B Sanders</p> <p>3. Address and phone number of applicant and Contact person:  Betty B Sanders, Senior Park Planner PO Box 90710; MS: 4NPK Redmond, WA 98073-9710 425-556-2328</p> <p>4. Date checklist prepared: March 2, 2015</p> <p>5. Agency requesting checklist: City of Redmond</p> <p>6. Give an accurate, brief description of the proposal's scope and nature:</p> <p>i. Acreage of the site: <u>2.2 acres</u></p> <p>ii. Number of dwelling units/ buildings to be constructed: <u>One</u></p> <p>iii. Square footage of dwelling units/ buildings being added: <u>&lt;1,500</u></p> <p>iv. Square footage of pavement being added: <u>XX</u></p> <p>v. Use or Principal Activity: <u>Public Park</u></p> <p>vi. Other information: _____</p>	<p>CB</p> <p>CB</p> <p>CB</p> <p>CB</p> <p>CB</p> <p>CB - No residences. Building will be restrooms/ storage. Approximately 63% of site (59,000 sq ft) will have pavement.</p>

To be completed by applicant	Evaluation for Agency Use only
<p>7. Proposed timing or schedule (including phasing, if applicable):</p> <p>Design Phase--Will start spring 2015  Construction Phase--Start 2017. Complete construction by mid-2018  Phasing--It is the City's intention to build all of the major features of the park in a single construction phase if budget allows.</p> <p>8. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain</p> <p>If funding is not adequate to build the entire project in an initial phase, it is possible that some of the smaller elements will be installed in later phases. This might include elements such as some of the artworks and stone walls.</p> <p>9. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.</p> <p>A geotechnical evaluation of the site was conducted as part of the Cleveland Streetscape Improvement project. The design phase will use this information, and will conduct additional geotechnical investigations. Building demolition in 2013 on the east half of the site also included a hazardous materials investigation and report. A Phase I Traffic Study was prepared for this Downtown Park Master Plan.</p> <p>10. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain.</p> <p>The City of Redmond is planning a roadway project called the Couplet Conversion, that includes channelization and signal work in Redmond Way, along the north edge of the park and adjacent to the northwest corner of the park.</p>	<p>CB -  Master plan scheduled for canal approval in April. Site plan entitlement and project-level SEPA estimated to be submitted in Spring/Summer 2015.</p> <p>CB</p> <p>CB</p>

To be completed by applicant	Evaluation for Agency Use only
<p>11. List any government approvals or permits that will be needed for your proposal, if known.</p> <p>State: NPDES Permit (DOE)  King County: Health Permit(s); Sewer Discharge Permit  City of Redmond: SEPA Checklist; Site Plan Entitlement; Building, Structural, Signage, Electrical, Mechanical, and Plumbing Permits.</p> <p>12. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)</p> <p>Redmond Downtown Park will be the hub of Redmond's network of parks in the downtown neighborhood. It is intended to serve the increasingly dense, pedestrian friendly urban center. Downtown Park will be part of a connected system of open space, parks, and trails that will inspire walking and biking, and improve the health of the community. It is in close proximity to the Redmond Central Connector, Bear Creek, and Sammamish River Trails.</p> <p>Downtown Park will serve everyday uses for the downtown neighborhood, as well as provide a venue for gatherings, cultural events and performances. The master plan concept was developed through an extensive process of public engagement that involved more than 2,500 people. The proposed concept includes: a) a raised "great lawn" with surrounding wooden boardwalk; b) an artist-designed pavilion; c) a plaza to support events; d) gathering and eating spaces under trees; e) a water play area; f) bermed gardens; and g) a restroom/storage building.</p> <p>13. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.</p> <p>Address: 16101 Redmond Way  S-T-R: NE - 11 - 25 - 5</p> <p>Attachments: Legal Description</p>	<p>CB - Council approval for Master Plan. Approvals listed will be required at the project level</p> <p>CB</p> <p>CB - Between Redmond Way and Cleveland Street east of 161st Ave NE</p>

**C. SIGNATURE**

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

**Signature:** Betty Sanders Digitally signed by Betty Sanders  
DN: dc=man, dc=redmond, ou=All Users - WIN7, ou=Parks,  
cn=Betty Sanders, email=BBSANDERS@redmond.gov  
Date: 2015.03.01 12:03:48 -08'00'

**Date Submitted:** March 2, 2015

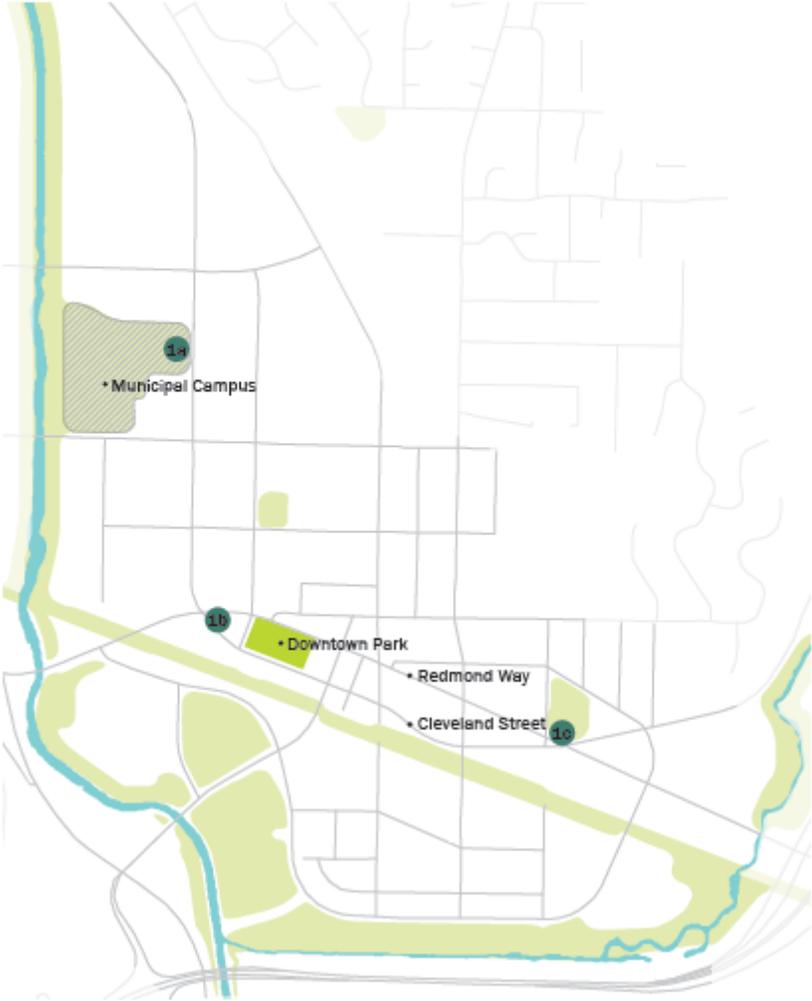
**Relationship of signer to project:** Applicant/Owner's Representative 

To be completed by applicant	Evaluation for Agency Use only
<p><b>D. <u>SUPPLEMENTAL SHEET</u></b></p> <p>Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.</p> <p>When answering these questions, be aware of the extent the proposal or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.</p> <p>1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise:</p> <p>Water features will increase discharge to water when in active use. Dust and emissions created by construction are expected on a temporary basis. Concerts and events will produce noise on occasion, but will be allowed only within specific timeframes.</p> <p>Proposed measures to avoid or reduce such increases are:</p> <p>The project will reduce runoff compared to previous site conditions and will be reduced by up to 40 percent through design of onsite infiltration. Measures to control dust will be employed during construction. Noise from events will be monitored.</p> <p>2. How would the proposal be likely to affect plants, animals, fish, or marine life?</p> <p>Grass is present on one parcel, but other parcels contain almost no vegetation. The number of plants will increase substantially over the current condition. Birds and small urban animals may benefit from the extensive trees and landscaping proposed.</p> <p>Proposed measures to protect or conserve plants, animals, fish or marine life are:</p> <p>Approximately 140 trees are proposed for the site, which will benefit birds and urban wildlife, and indirectly, fish and marine life.</p>	<p>CB - A project-level SEPA will be issued for the subsequent park proposal.</p> <p>CB - A project-level SEPA will be issued for the subsequent park proposal.</p>

To be completed by applicant	Evaluation for Agency Use only
<p>3. How would the proposal be likely to deplete energy or natural resources?</p> <p>Electricity will be used for lighting the site and restroom, and for controlling irrigation. Peat may need to be removed where it is found beneath the great lawn and paved areas.</p> <p>Proposed measures to protect or conserve energy and natural resources are:</p> <p>Energy efficient LED fixtures will be proposed for most, if not all, of the lighting in the park. Exterior lights will be controlled via photocell for automatic shutoff when sufficient daylight is available, and via timeclock for automatic shutoff. Sustainable design will be employed, and low impact development (LID) principles will be used where possible.</p>	<p>CB - A project level SEPA will be issued for the subsequent park proposal.</p>
<p>4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands:</p> <p>The project is likely to be affected by, or affect, peat soils and an aquifer below the site. A landmarked building, the O.A. Wiley Stone House, is immediately adjacent to the park's eastern edge, and pedestrians are expected to move across both sites.</p> <p>Proposed measures to protect such resources or to avoid or reduce impacts are:</p> <p>Peat will be removed if necessary. Stormwater will be designed to infiltrate, to recharge the aquifer. Design adjacent to the Stone House will be coordinated with the owner, to integrate outdoor dining spaces. The house will be monitored to avoid impacts.</p>	<p>CB - A project level SEPA will be issued for the subsequent park proposal. Critical Aquifer Recharge Area report required at project level. Park design required to meet Wellhead Protection Zone and Stormwater Management regulations</p>
<p>5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?</p> <p>The park is intended to support surrounding land uses with an increase in recreational and green space in downtown. The Downtown Park will serve residents and employees who live or work in the neighborhood on a daily basis. These activities will provide economic benefit to supporting service providers and adjacent businesses. It would have no impact on shoreline use.</p>	<p>CB</p>

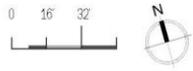
To be completed by applicant	Evaluation for Agency Use only
<p>Proposed measures to avoid or reduce shoreline and land use impacts are:</p> <p>During the design phase City staff will continue to provide information to residents and business owners in downtown, and to seek input about the park design and how the City can minimize impacts and disruptions to the community.</p> <p>6. How would the proposal be likely to increase transportation or public services and utilities?</p> <p>It will increase traffic and parking demand during larger events. Additional park maintenance will be required on an ongoing basis. Other standard utilities will be needed, possibly in comparable amounts to previous uses. Wi-fi is being considered, which would be a new utility on the site.</p> <p>Proposed measures to reduce or respond to such demand(s) are:</p> <p>A Phase II Traffic Study is proposed for the design phase, which will develop a parking management strategy. A parking strategy similar to that used for Derby Days will be explored, in which organizations agree to allow parking in offsite locations, and the City provides shuttles from offsite to events at Downtown Park.</p> <p>7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.</p> <p>The park will be environmentally beneficial due to the increased amount of vegetation, and the increase in pervious surface compared to former uses. The project will be designed to meet all environmental requirements. No conflicts with laws or environmental protections requirements are foreseen.</p>	<p>CB - A project level SEPA will be issued for the subsequent park proposal.</p> <p>CB - A Phase I Traffic Study submitted with the master plan proposal. A project level SEPA will be issued for the subsequent park proposal.</p> <p>CB - A project level SEPA will be issued for the subsequent park proposal.</p>

**Redmond Downtown Park  
Vicinity Map**





- PLAN LEGEND:**
- 1 Lawn (Elevated two feet)
  - 2 Wood Lounging Ring (Elevated two feet)
  - 3 Steps
  - 4 Wood Deck
  - 5 Ramp with Stone Wall
  - 6 Striped Paving Pattern
  - 7 Floodable Plaza with Water Jets
  - 8 Suspended Pavilion
  - 9 Wood Benches
  - 10 Bermmed Gardens
  - 11 Maple Bosque
  - 12 Stone Seating Walls
  - 13 Birch and Willow Trees
  - 14 Great Oak Street Tree Allee/Bosque with Stone Walls
  - 15 Maple Bosque with Movable Tables and Chairs
  - 16 Storage and Park Restrooms



**REDMOND DOWNTOWN PARK**  
Final Master Plan Concept



## DRAFT MEMORANDUM

Date: December 19, 2014  
To: B Sanders, City of Redmond  
From: Chris Breiland, Fehr & Peers  
**Subject: Phase I Transportation Analysis for the Redmond Downtown Park  
Master Plan**

*SE14-0348*

This memorandum summarizes the results of a preliminary transportation impact analysis of the proposed expansion of the Downtown Park in Redmond. Potential traffic, parking, and pedestrian/bicycle impacts are discussed for three types of events in the park: typical weekday use, a weekday night market event, and a weekend midday concert. Potential mitigating measures and direction for more detailed study are also described to reduce the extent of potential impacts.

### **Study Background**

This transportation impact analysis is being prepared in conjunction with the development of a Master Plan for the Downtown Park. The Downtown Park is located between Redmond Way and Cleveland Street east of 161<sup>st</sup> Avenue NE in Downtown Redmond.

As part of this initial analysis, Fehr & Peers has prepared the following evaluations:

- Multi-modal trip generation
- Vehicle Trip distribution
- Parking generation
- Parking distribution
- Discussion of potential impacts, mitigating measures, and directions for additional study



These evaluations were performed for the following scenarios, which are described in detail in the next section:

- Typical weekday use (5-6 PM)
- Weekday night market
- Weekend mid-day concert

### **Analysis Scenarios**

Working with City of Redmond Staff and PFS Studios (the consultant firm preparing the Master Plan), three event scenarios were selected for evaluation. These scenarios represent a range of activity in the park that would be expected throughout the year and illustrate the types of transportation impacts that can be expected for events of varying intensities. In general, the less intensive (i.e., lower attendance) activities will occur more frequently than the higher-intensity activities.

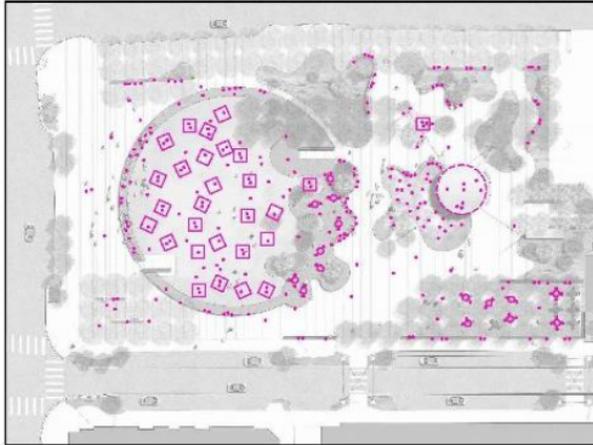
#### *Typical Weekday*

For much of the year, Downtown Park will function as an “unprogrammed” space with no planned special events. Under these conditions, the park will serve as a space for residents, visitors, and employees in the area to gather and recreate. To understand the types of uses that could occur on a typical day, a report that evaluated activity in Bellevue’s Downtown Park was reviewed.<sup>1</sup> While Bellevue’s Downtown Park is much larger (18.5 acres compared to 2 acres), both parks are located within relatively dense urban areas with a mix of employment, retail, and residential uses. Based on the Bellevue observations, the park attracts a mix of people participating in group activities (exercise classes, sports) and individual activities (resting, jogging, reading).

The figure on the following page shows some features of the park under typical conditions. This figure was prepared by PFS Studio, the design firm working with the Parks Department on the park expansion. Note that the layout in the figure identifies the total capacity of the park (112 people on blankets) under typical daily conditions, which is greater than the expected utilization.

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<sup>1</sup> *Bellevue Downtown Park Parking Study*, Gibson Traffic Consultants, October 2013



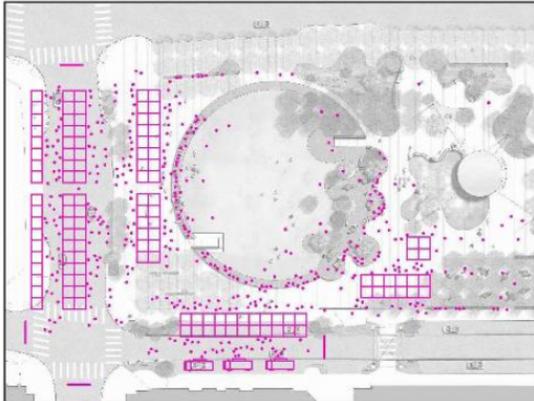
### A DAY IN THE PARK

Program Elements:

- Lawn Space 17,000 sf
- Picnic blankets @ 10'x10'f
- 112 people on blankets @ 150 sf per person
- Splash pad play 2,880 sf (28 water jets)

### *Weekday Night Market*

In the summer of 2014, the Redmond Parks Department developed the "So Bazaar" event. This event, also known as the Thursday Night Market blended an arts and crafts market, beer/wine garden, food trucks, and on-stage performances. The night markets drew about 1,500-1,800 people on the three weeks they were staged. An expanded version (with attendance of up to 3,000) of the weekday night market was selected as the most intensive event that would occur on a weekday for evaluation in this study. In terms of overall attendance expectations for buildout of the Downtown Park, this is a large-to-mid-sized event. It anticipated that the night market could be held for several weeks during the summer.



### MARKET

Program Elements:

- 120 market stalls @ 10'x10' f
- 3 food trucks @ 24.4'x7.3' f



### *Weekend Concert*

The most intense use of the park evaluated is a concert event. Based on discussions with the Parks Department, large concerts will only be held on weekends, when more parking is available downtown. For the purposes of this study, a midday concert was selected for evaluation since traffic counts collected by the Transportation Department indicate that weekend traffic peaks between noon and 2 PM. The anticipated attendance of the concert is 4,500 people and could be held 2-3 times a year.<sup>2</sup>

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<sup>2</sup> The Parks Department and PFS Studio have identified the potential for a larger concert with attendance of up to 6,500. However, an event of this scale is not currently expected to be held on a regular basis (once or less per year). The transportation impacts of this larger concert would be similar to those described in this study, but more substantial since the attendance would be 44 percent higher. If a concert of this scale is proposed, a supplemental transportation and parking impact analysis may need to be prepared.



### CONCERT PERFORMANCE STAGE ON WESTERN PLAZA

Program Elements:

- Stage 20'-16'
- 25,700 sf within viewing area
- 4,500 standing crowd at 4-7 sf per person

### Trip Generation

Given the distinct nature of the analysis scenarios, a separate trip generation calculation was performed for each. The trip generation analysis includes trips generated by vehicles (SOV/HOV), and other modes pedestrians, bicycles, and transit. The trip generation assumptions and methodologies are described below.

#### *Typical Weekday*

To determine the number of trips generated on a typical weekday<sup>3</sup> by an urban park like the proposed Downtown Redmond Park, several sources were considered:

- Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 8<sup>th</sup> Edition
- San Diego Association of Governments, *Trip Generators*
- City of Bellevue, *Bellevue Downtown Park Parking Study*

After a thorough review, it was determined that the trip generation rates in the ITE and San Diego studies were not appropriate for an urban park since the unit of analysis either did not make

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<sup>3</sup> Evening peak-hour (5-6 PM) trip generation was calculated since this time has the peak traffic generation.



sense (e.g., trips per picnic site, trips per employee), or the trip generation rate was too low compared to the comparable Downtown Bellevue Park (3,500 trips per summer day).

While Bellevue has an estimate of daily park trips, the Bellevue study does not have an estimate of the number of trips during the PM peak hour of 5-6. To estimate the PM peak hour trip generation, observations from the Downtown Bellevue Park Parking Study were used. As part of this study, PM peak hour park utilization was recorded (number of people observed in the park). Combining this usage information with an assumed length of stay at the park, we can estimate a trip generation rate.

Based on data in the Downtown Bellevue Park Parking study, on a typical summer (June-August) PM peak hour, there are approximately 216 people in the park, which is about 12 people per acre (the developed area—not including parking—of Downtown Bellevue Park is 18.5 acres). Scaling this usage rate to the Downtown Redmond Park translates into a PM peak hour usage of about 24 people.

There is no data in common transportation information sources (ITE documents, travel surveys, PSRC documents) about the average amount of time a person spends in a park, so an assumption of 50 minutes was used for this analysis. A 50 minute duration results in a PM peak hour trip arrival rate of about 29 trips (24 attendees \* (60 mins/50 mins)). Assuming an equal number of arrivals and departures, this translates into 58 total person trips generated in the PM peak hour.

To convert person trips into vehicle trips, the following factors were used:

- *Percent of people arriving by vehicle: 66%*. Conventional data sources do not have any information about the proportion of park trips that arrive by different modes. Mode of arrival was not evaluated as part of the Downtown Bellevue Park Parking Study. The Redmond Household Travel survey indicated that 87% of home-based other trips (which is the trip-purpose category that covers most park trips) are made by vehicle. However, given the proximity of the park to many downtown Redmond residential buildings, we are using our best judgment and are assuming a higher proportion of non-drive trips (66% as opposed to 87%).
- *Average vehicle occupancy: 2.2 persons per vehicle*. This vehicle occupancy is based on the National Household Travel Survey (NHTS) results for recreational trips. This means that on average, each vehicle arriving to the park contains 2.2 persons.



Based on these assumptions, **Table 1** summarizes the PM peak hour trip generation for the typical weekday scenario.

<b>TABLE 1: PM PEAK HOUR TRIP GENERATION FOR TYPICAL DAY SCENARIO</b>		
<b>Total Person Trips</b>	<b>Vehicle Trips</b>	<b>Other Modes (Ped, Bike, Transit)</b>
58 – 29 arrivals and 29 departures	18 – 9 arrivals and 9 departures	20 – 10 arrivals and 10 departures

*Night Market*

The City of Redmond Parks Department provided Fehr & Peers with hourly attendance and crowd observations from the three night market events held during August of 2014. We used this information, scaled up to reflect a larger event, to estimate trip generation for the night market scenario. In this section, we summarize both the PM peak hour (5-6) and the peak event (7-8 PM) trip generation for the night market.

**Table 2** summarizes how person trip generation was estimated using observed headcount and attendance data:

<b>TABLE 2: METHOD FOR ESTIMATING TRIP GENERATION FOR NIGHT MARKET USING OBSERVED DATA FROM AUGUST 2014</b>					
<b>Time Period</b>	<b>Attendance (cumulative)<sup>1</sup></b>	<b>Headcount at end of period<sup>1</sup></b>	<b>Arrivals<sup>2</sup></b>	<b>Departures<sup>3</sup></b>	<b>Total Estimated Person Trips</b>
5-6 PM	200	185	200	15	215
6-7 PM	713	467	513	231	744
7-8 PM	1,249	502	536	501	1,037
8-9 PM	1,659	408	410	504	914
9-10 PM	1,692	0	33	441	474

Notes:  
<sup>1</sup> Based on observations taken on August 14, 2014  
<sup>2</sup> Based on cumulative attendance (net increase in attendance during each hour)  
<sup>3</sup> Difference between the arrivals + prior period's headcount and the headcount at the end of the hour



Scaling the trip generation to the expected maximum attendance (3,000) and focusing on the PM peak and event peak hours results in the following:

<b>TABLE 3: NIGHT MARKET SCENIARO PERSON TRIP GENERATION</b>			
<b>Time Period</b>	<b>Arrivals</b>	<b>Departures</b>	<b>Total Person Trips</b>
5-6 PM – PM Peak Hour	355	27	381
7-8 PM – Peak Hour of Event	950	888	1,839

To determine trip generation by mode, the assumptions below were applied. Results are summarized in **Table 4**.

- *Percent of people arriving by vehicle: 87%.<sup>4</sup>* Based on the Redmond Household Travel Survey results for home-based other trips.
- *Average vehicle occupancy: 2.2 persons per vehicle.* Based on NHTS data.

<b>TABLE 4: TRIP GENERATION BY MODE FOR NIGHT MARKET SCENARIO</b>			
<b>Time Period</b>	<b>Total Person Trips</b>	<b>Vehicle Trips</b>	<b>Other Modes (Ped, Bike, Transit)</b>
5-6 PM – PM Peak Hour	381	151 – 140 arrivals and 11 departures	50 – 46 arrivals and 4 departures
7-8 PM – Peak Hour of Event	1,839	727 – 376 arrivals and 351 departures	239 – 124 arrivals and 115 departures

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<sup>4</sup> Given the large number of apartments and businesses that are within walking or bicycling distance of the downtown park, this estimate of the number of people that may arrive by car is likely a high estimate. However, to present a conservative (higher) estimate of the potential traffic generation from this event, the citywide average was used.



*Weekend Concert*

A similar methodology was used to estimate the trip generation of the weekend concert scenario. Concert arrival and departure patterns were based on a review of the Seattle Arena EIS and *Managing Travel for Planned Special Events*, FHWA. The assumed arrival and departure rates are shown in **Table 5**.

<b>TABLE 5: ASSUMED ARRIVAL AND DEPARTURE RATES FOR THE CONCERT SCENARIO</b>		
<b>Time Period</b>	<b>Arrival Rate</b>	<b>Departure Rate</b>
3 hours before start	8%	0%
2 hours before start	15%	0%
1 hour before start	50%	1%
At start	25%	3%
1 hour into show	2%	1%
2 hours into show	0%	10%
End of show (3rd hour)	0%	70%
1 hour after show	0%	10%
2 hours after show	0%	5%

Using the assumptions below, the trip generation rates by mode can be calculated, as shown in **Table 6**.

- *Percent of people arriving by vehicle: 87%*. Based on the Redmond Household Travel Survey results for home-based other trips.
- *Average vehicle occupancy: 2.2 persons per vehicle*. Based on NHTS data.

<b>TABLE 6: TRIP GENERATION BY MODE FOR CONCERT SCENARIO</b>			
<b>Time Period</b>	<b>Total Person Trips</b>	<b>Vehicle Trips</b>	<b>Other Modes (Ped, Bike, Transit)</b>
3 hours before start	360	142 – all arrivals	47 – all arrivals
2 hours before start	675	267 – all arrivals	88 – all arrivals
1 hour before start	2,295	908 – 890 arrivals, 18 departures	298 – 293 arrivals, 6 departures
At start	1,260	498 – 445 arrivals, 53 departures	164 – 146 arrivals, 18 departures
1 hour into show	135	53 – 36 arrivals, 18 departures	18 – 12 arrivals, 6 departures
2 hours into show	450	178 – all departures	59 – all departures
End of show (3rd hour)	3,150	1,246 – all departures	410 – all departures
1 hour after show	450	178 – all departures	59 – all departures
2 hours after show	225	89 – all departures	29 – all departures



*Trip Generation Scenario Summary*

Table 7 summarizes the peak hour trip generation results for all three analysis scenarios.

<b>TABLE 7: PEAK HOUR TRIP GENERATION FOR ALL SCENARIOS</b>			
<b>Scenario/Time Period</b>	<b>Total Person Trips</b>	<b>Vehicle Trips</b>	<b>Other Modes (Ped, Bike, Transit)</b>
Typical Weekday/5-6 PM	58	18 – 9 arrivals and 9 departures	20 – 10 arrivals and 10 departures
Night Market/7-8 PM	1,839	727 – 376 arrivals and 351 departures	239 – 124 arrivals and 115 departures
Weekend Concert/End of Show	3,150	1,246 – all departures	410 – all departures

As shown, the night market and weekend concert scenarios generate a substantial number of vehicle trips and trips by other modes at their peak times. The next section describes how the vehicle trips are expected to be distributed. A later section describes the potential for traffic and pedestrian/bicycle circulation impacts from these events.

**Vehicle Trip Distribution**

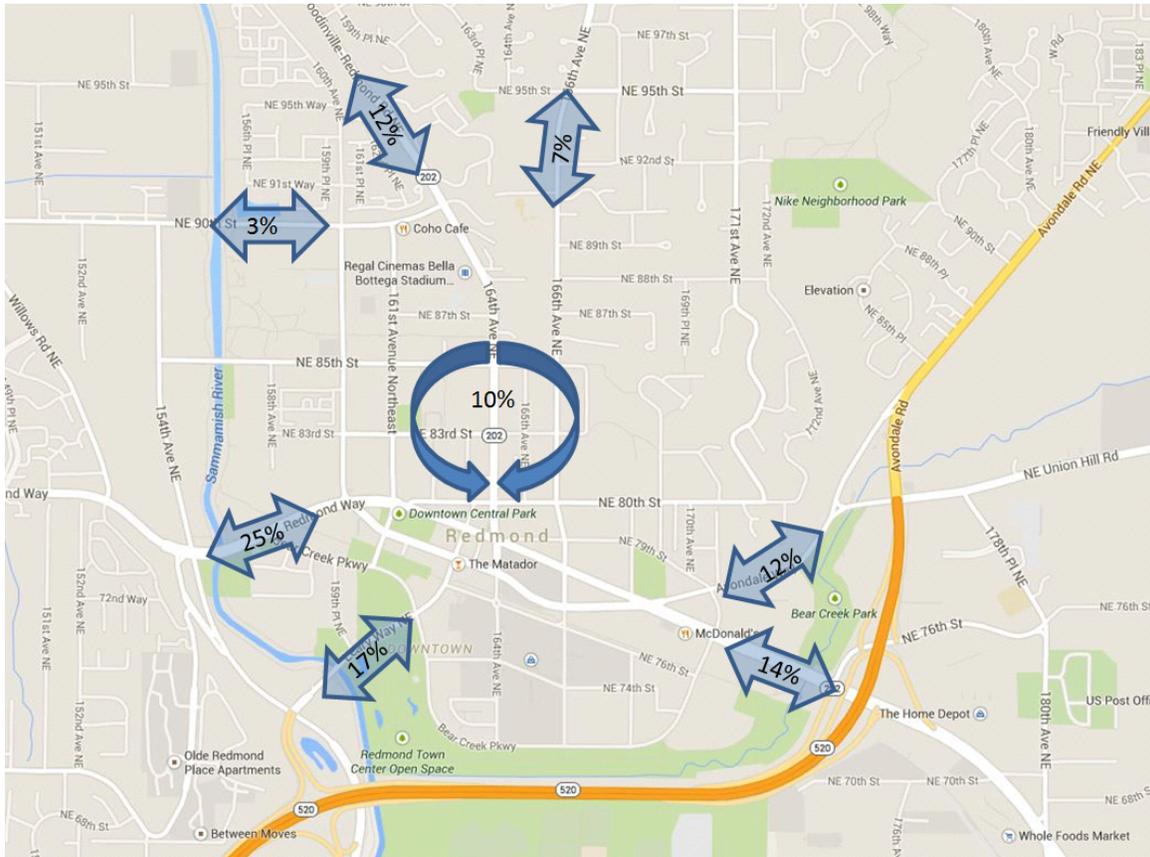
This section summarizes where trips to and from the Downtown Park are expected to go. This pattern of trips is known as trip distribution and the distribution pattern is based on output from the City of Redmond Travel Demand Forecasting model.<sup>5</sup> **Figure 1** summarizes the trip distribution pattern expected for the Downtown Park. As shown, trips are fairly evenly distributed to the major roads leading to/from the park with the highest proportions being on Redmond Way east and west of downtown, and Leary Way heading toward SR 520.

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<sup>5</sup> The Redmond Travel Model outputs vehicle trip distribution patterns. This pattern is reasonable for the Night Market and Concert scenarios. The Typical Weekday scenario, which has a higher assumed walk/bike mode share would have a higher proportion of trips from within downtown Redmond.



**Figure 1 – Trip Distribution**



### **Parking Demand and Distribution**

This section summarizes the expected parking demand and distribution expected from the three Downtown Park scenarios. Parking generation is based in the vehicle trip generation data presented in the prior section. Parking supply and utilization data were obtained from the recently prepared *Parking Strategies Study*, prepared by Rick Williams Consulting.

#### *Parking Supply*

Parking demand is distributed into on-street stalls only for a conservative assessment of potential impacts to on-street parking availability and potential off-street parking spillover. Note that there are a number of paid parking lots available in downtown Redmond that can accommodate Downtown Park users, including the 92 stall Redmond Central Connector Parking lot at the corner of Leary Way and Bear Creek Parkway. Other than the Redmond Central Connector Parking lot,



most commercial paid parking lots are available to the public on nights and weekends only. **Figure 2** shows a map of on-street supply in downtown Redmond. Based on the Downtown Parking Study, there are 900 on-street stalls in downtown Redmond within a 10 minute walk of the park. On-street stalls have time restrictions that range from 1-3 hours (unless a vehicle has a permit); these time restrictions are enforced Monday-Friday from 9 AM - 5 PM. For this study, the time limits on parking were not considered because the assumed duration of typical weekday park use was less than 1 hour and the night market and concert events occur outside of the hours when time limits are enforced.

**Figure 2 – On-Street Parking Map**



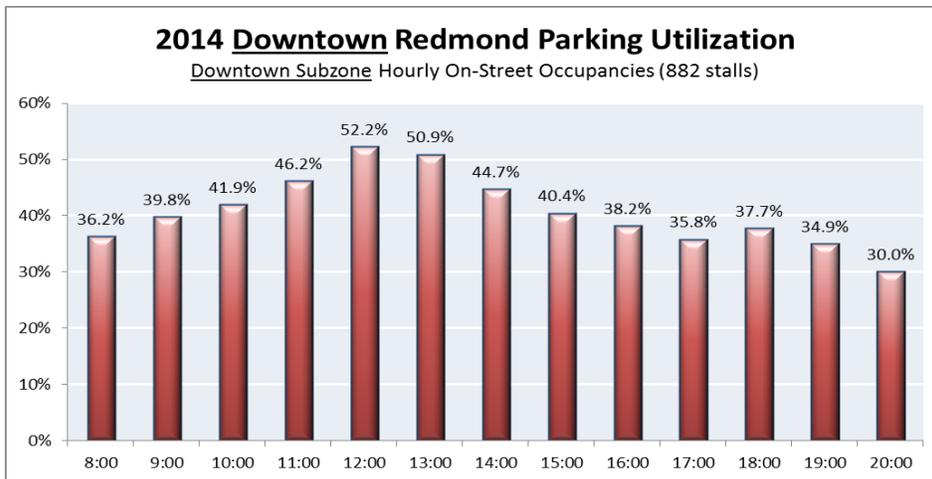
### *Background Parking Utilization*

The *Redmond Parking Strategies Study* evaluated on-street parking utilization during the course of the day, which allows us to evaluate parking demand relative to the available (unused) on-street supply at different times of the day. **Figure 3** shows the on-street utilization patterns for a typical



weekday. Downtown Redmond shows a common parking demand pattern for mixed-use areas with parking demand peaking in the midday, then dropping off with a small peak in the early evening associated with restaurants/bars. There are no studies of weekend parking utilization in downtown Redmond; however, based on our casual observations, there is less parking demand on the weekends than weekdays. For the purposes of this study, the weekday parking utilization is assumed for weekends.

**Figure 3 – On-Street Parking Utilization Rates**



**Table 8** summarizes the parking demand for the three different scenarios. Parking demand for the typical weekday and night market scenarios are presented for the 6-7 PM period, since that period represents the highest afternoon/evening utilization for background uses. The night market scenario demand is also summarized for the 7-8 PM period, which represents the peak parking demand for the event. The peak parking demand for the concert scenario is also presented.

For each of the scenarios, a “turnover factor” is included when estimating parking demand. This factor is included because we only have parking demand/utilization data on an hourly basis and a parking arrival could occur before a parking departure during the hour. To account for the imperfect match between supply and demand, parking demand was factored up by 15 percent to provide a conservative assessment of parking.

The parking demand in Table 7 is further divided by proximity to the park. Demand/supply within 5 minutes is identified along with parking demand/supply within 10 minutes (which generally

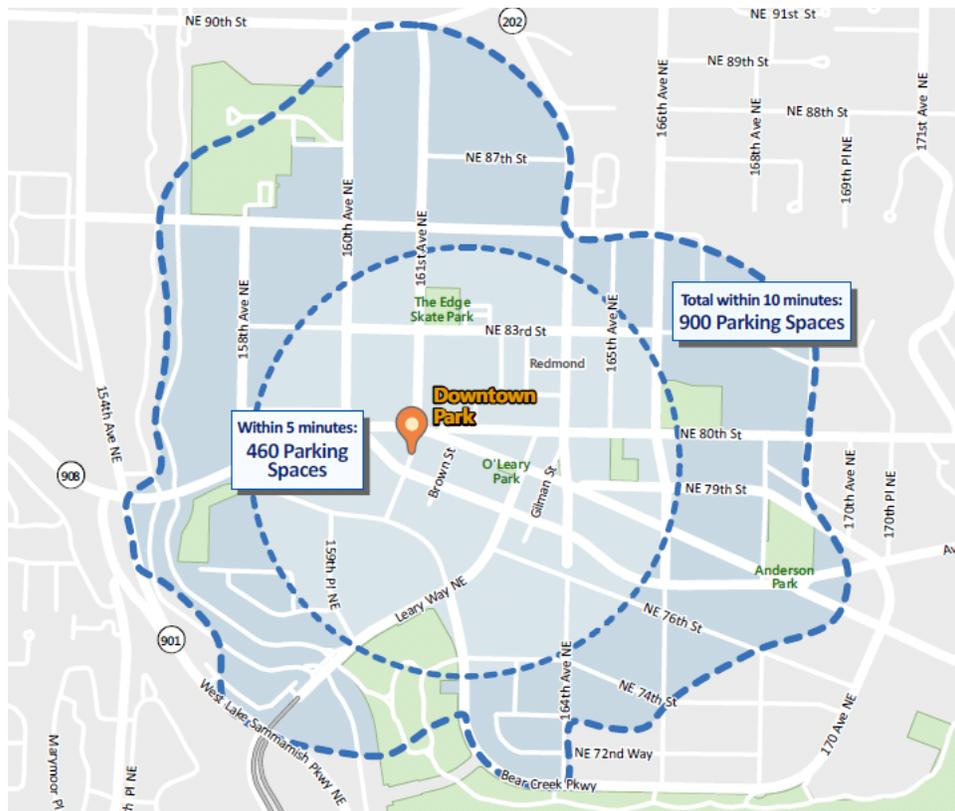


encompasses all parking in downtown and Redmond Town Center). The parking demand/supply within 10 minutes includes the demand/supply within 5 minutes. The boundaries for the time buffers are shown in **Figure 4**.

<b>TABLE 8: PARKING DEMAND BY SCENARIO</b>			
<b>Scenario/Time Period</b>	<b>Parking Demand</b>	<b>Within 5 Minutes</b>	<b>Within 10 Minutes<sup>1</sup></b>
		<b>On-Street Stalls Available<sup>2</sup></b>	<b>On-Street Stalls Available<sup>2</sup></b>
Typical Weekday (6-7 PM)	8	252	492
Night Market (6-7 PM)	389	252	492
Night Market (7-8 PM)	417	295	576
Weekend Concert (beginning of show)	1,944	191 <sup>3</sup>	374 <sup>3</sup>

Notes:  
<sup>1</sup> Parking supply within 10 minutes of the park includes the stalls available within 5 minutes  
<sup>2</sup> Based on observed on-street occupancy at the time listed  
<sup>3</sup> Since no weekend occupancy data are available, the weekday occupancy from 12-1 PM is assumed

**Figure 4 – Time Buffers for Parking Analysis**





The results in Table 7 indicate the following:

- There is adequate on-street parking supply for the typical weekday scenario within 5 minutes of the park
- There is adequate on-street parking supply within 10 minutes for the night market scenario. However, given that parking demand exceeds on-street supplies within 5 minutes by as many as 137 parking stalls, there may be the potential for spillover into adjacent private off-street lots. Suggestions to mitigate the perceived lack of on-street supply immediately near the park will be presented in the next section.
- The weekend concert scenario parking demands substantially exceed available on-street supplies. Even if weekend utilization is substantially lower than the weekday utilization used for this analysis, additional off-street supplies will be needed. Suggestions are presented later in this document.

### **Potential Transportation Impacts**

This section describes the potential transportation impacts of the three Downtown Redmond Park scenarios. The impacts are grouped by type: traffic, pedestrian/bicycle, and parking. Recommendations for additional evaluation and mitigating measures are also provided.

#### *Traffic Impacts*

As shown in the Trip Generation section of this document, the night market and weekend concert scenarios generate a substantial number of trips during their peak trip generation periods (7-8 PM, and after the end of the concert, respectively). The typical weekday scenario does not generate enough vehicle trips to noticeably impact downtown Redmond traffic conditions.

#### Night Market

The night market scenario is forecast to generate 151 vehicle trips during the busy 5-6 PM period with 140 inbound and 11 outbound trips. While additional study may be warranted, these trips likely will not have a major impact on traffic operations since the trip distribution pattern shown on Figure 3 is fairly dispersed. Additionally, visitors to the night market are likely to park in a variety of on-street (and potentially some off-street) parking areas, further reducing impacts on any particular intersection.

Additional analysis may be warranted for the 7-8 PM peak hour of the event given the relatively high vehicle trip generation (376 inbound and 352 outbound trips). Although background traffic



generation is much lower during the 7-8 PM period, the park trip generation combined with fairly heavy pedestrian flows around the intersections leading to the park could cause some traffic congestion issues.

#### Weekend Concert

As shown in Table 6, the weekend concert is expected to generate a substantial number of vehicle trips both in the one hour before and after the concert. While weekend traffic is less heavy than weekday traffic, the concert trips combined with the need to have visitors park in a set of off-street lots may lead to substantial traffic impacts at intersections accessing the major parking facilities. While potential parking facilities are discussed later in this document, given the preliminary nature of this document, no commitments between the Redmond Parks Department and parking lot owners have been made. It is recommended that an event traffic study and traffic management plan be developed if and when a weekend concert event is held.

#### *Pedestrian and Bicycle Impacts*

As with the prior section, the level of park use during the typical weekday scenario will not generate enough pedestrian or bicycle trips to result in any impacts to pedestrian/bicycle flow, safety, or bicycle parking needs. Potential impacts for the other scenarios are described below.

#### Night Market

As described in the Traffic Impacts section, night market trip generation is relatively low during the 5-6 PM peak hour and no pedestrian or bicycle impacts are expected. However, during the peak period of 7-8, and potentially for the following hour as well, there will be a substantial amount of pedestrian trips coming and going to the site.<sup>6</sup> This includes both people who use non-auto modes to access the night market and the people walking to and from their cars.

As the night market grows from its current size to what is ultimately planned at the Downtown Park, the Parks Department and Transportation Department should monitor the intersections near the park to determine if additional pedestrian traffic control is needed to safely allow pedestrians

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<sup>6</sup> While both pedestrian and bicycle trips are expected, based on the Redmond Household Travel Survey, walking is much more common than bicycling (typical walking trip shares are 10 percent compared to 1-2 percent for bike). Therefore, the majority of non-auto trips going to/from the night market are expected to be pedestrians.



to access the park. These types of control are likely only necessary if the full planned attendance levels of 3,000 people are reached.

While bicycle use is not expected to be a major mode to access the site, there still may be a substantial need for bicycle parking at the event. If 5 percent of the guests that are at the event at the peak time arrive by bicycle, there will be the need for approximately 50 bicycle parking spaces. As the event grows over time, it is recommended that a bicycle valet parking program be established to ensure that bicycles are not parked inappropriately (e.g., blocking access, on private property, etc.).

#### Weekend Concert

Given the proposed scale of the weekend concert event, it is recommended that an event traffic management plan be developed to address pedestrian flows to/from the site at the intersections nearest to the park and the intersections that access the major garages where people will park. While additional analysis will be necessary, police control or other forms of traffic management may be necessary to safely accommodate pedestrian flows across streets and through intersections. As with the night market scenario, bicycle valet parking is recommended for this event to help manage bicycle parking demand.

#### *Parking Impacts*

As noted earlier, the typical weekday event would not result in a substantial increase in parking demand within a five-minute walk of the park. The night market parking demand can be accommodated in available on-street spaces within a 10-minute walk of the park; however, given the desire of visitors to park as close as possible to the destination, there could be spillover into adjacent private off-street lots. The weekend concert scenario would completely overwhelm available on-street supplies and will require off-street parking management to avoid parking impacts.

#### Night Market

Given the potential for off-street parking spillover, it is recommended that as the night market event grows, the Parks Department provide guidance to night market visitors about the availability of on-street and paid off-street parking options (in addition to encouraging walking, biking and transit). Through the combination of on- and off-street parking stalls, there is



adequate parking available to meet the night market parking demands. Adjacent parking lot owners may need to manage parking at their properties to discourage night market parking if they perceive this to be a problem; however, the City cannot be responsible for managing parking on private properties.

#### Weekend Concert

The high parking demand of the weekend concert will require the Parks Department to enter into agreements with nearby private parking lot owners, much as they do for other major events like Derby Days. Nearby lots with substantial weekend capacity include the parking lots/garages at Redmond Town Center, the Opportunity Building, and the King County Metro Park-and-Ride lot. If and when a weekend concert at Downtown Park is held, the Parks Department should pre-arrange agreements to direct concert attendees to underutilized off-street facilities. Given the size of the off-street facilities and a demonstrated track-record with events like Derby Days, these arrangements would reduce the parking impact to a less-than-significant level.