Downtown Redmond Link Extension SEPA Addendum

Appendix G Environmental Justice

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Prepared for



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1. **REGULATORY FRAMEWORK**

This State Environmental Policy Act (SEPA) Addendum evaluates proposed refinements to the Downtown Redmond Link Extension, formerly known as Segment E of the East Link Project. In 2011, the Sound Transit Board evaluated and identified the Preferred Alternative in Segment E, Marymoor Alternative E2 (referred to hereafter as the 2011 Project) in the East Link Project Final Environmental Impact Statement (Final EIS) and Record of Decision (ROD). The proposed refinements to the 2011 Project are referred to as the Proposed Design Refinements.

The environmental justice evaluation for the Proposed Design Refinements was prepared in compliance with Presidential Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994, and with the May 2, 2012 U.S. Department of Transportation (DOT) Order 5610.2(a) to Address Environmental Justice in Minority Populations and Low-Income Populations (2012 DOT Order; USDOT 2012).

2. STUDY AREA DEMOGRAPHICS

The study area used for the environmental justice analysis is a half-mile radius around the light rail alignment. This radius is consistent with the Final EIS and was identified as the area most likely to receive the greatest impact, both positive and negative. Since 2011, the study area has experienced rapid growth in population and increased economic investment in downtown Redmond. There has been an increase in ethnic diversity, with increases in Asian American and Hispanic populations and a decrease in white populations. This environmental justice analysis uses demographic data from the U.S. Census Bureau and public elementary schools data from the National Center for Education Statistics. Detailed demographic data are included in Attachment G1.

2.1 U.S. Census Bureau Data

The U.S. Census Bureau provides two useful data sets for analyzing demographic information for an environmental justice analysis—the decennial census and American Community Survey (ACS). The decennial census is a nationwide census, conducted every 10 years, that collects basic information about people and housing from housing units and living quarters. The Final EIS used the 2000 Census data, which were available at the time the analysis was performed, and supplemented the data. This updated analysis for the Proposed Design Refinements uses ACS estimates that are based on the most recent 2010 Census data.

The 2010–2014 ACS 5-year estimates (2014 ACS Estimates) were used to determine the most recent demographic composition of minority and low-income populations within the study area (U.S. Census 2014). To evaluate how demographics in the study area have changed since the Final EIS, ACS estimates for the 5-year period from 2006 to 2010 (2010 ACS Estimates; U.S. Census 2010) were compared to the 2014 ACS Estimates data. Minority and low-income populations were analyzed at the census block group level, the smallest geographic unit available for ACS data. The study area includes census block groups that are located either entirely or partially within the half-mile radius (Figure G-1).

Table G-1 shows the percentage of minority and low-income populations in the study area by block group for 2010 and 2014 ACS Estimates, and the percentage point change from 2010 to 2014 for low-income populations. Figures G-2 and G-3 depict this information graphically.

As shown in Table G-1, the overall minority percentage point change ranges from a decrease of 15 percentage points in block group 323242 to an increase of 23 percentage points in block group 323134. Across 13 of the 18 block groups, the percentage of minority populations has increased between 2010 and 2014. The block groups with the largest increases in percentage point change for minority populations are located on the eastern edge of the study area, east of East Lake Sammamish Parkway NE and 180th Avenue NE, and west of the alignment between NE 40th Street and NE 60th Street (see Figure G-2).

Block Group	2010 Population	2014 Population	Percent Minority (2010)	Percent Minority (2014)	Percentage Point Change from 2010 to 2014	Percent Low Income (2010)	Percent Low Income (2014)	Percentage Point Change from 2010 to 2014	
226064	1,203	1,317	28	46	18	2	19	17	
228011	2,481	2,613	47	67	20	33	11	-22	
228012	3,757	2,880	72	75	3	20	17	-3	
228021	2,025	1,721	33	46	13	20	11	-9	
228022	1,523	1,569	33	25	-8	5 7		2	
228023	1,252	1,624	18	37	19	3	9	6	
228031	850	772	54	64	10	1	5	4	
228032	2,726	3,105	47	54	7	10	8	-2	
228033	1,874	1,574	39	52	13	23	41	18	
229024	1,547	1,396	28	36	8	7	20	13	
323091	434	1,773	44	56	12	9	24	15	
323092	1,815	2,714	51	49	-2	19	17	-2	
323132	1,236	1,111	43	43	0	14	11	-3	
323133	480	830	71	57	-14	0	0	0	
323134	3,477	3,814	58	81	23	23	33	10	
323242	676	1,096	57	42	-15	34	19	-15	
323243	1,604	1,715	30	42	12	34	39	5	
323253	2,417	2,711	40	39	-1	25	18	-7	

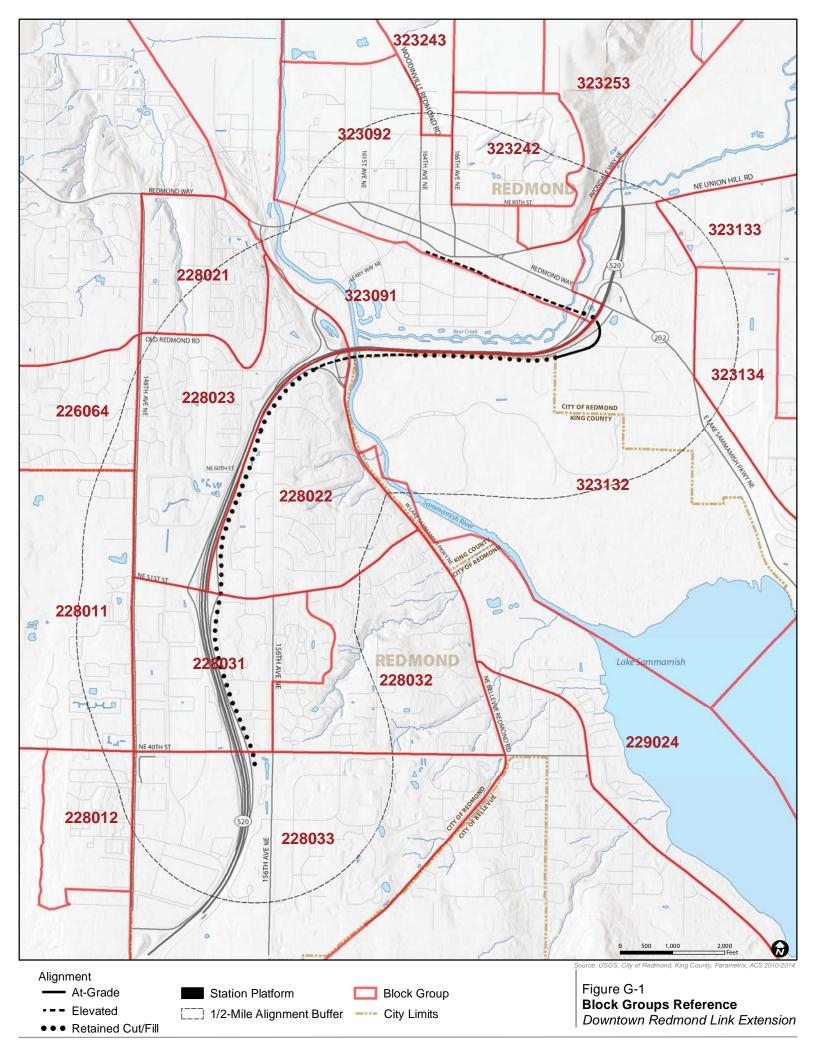
Table G-1. Summary and Comparison of Percent Minority and Percent Low-Income Populations by Block Group from 2010 to 2014

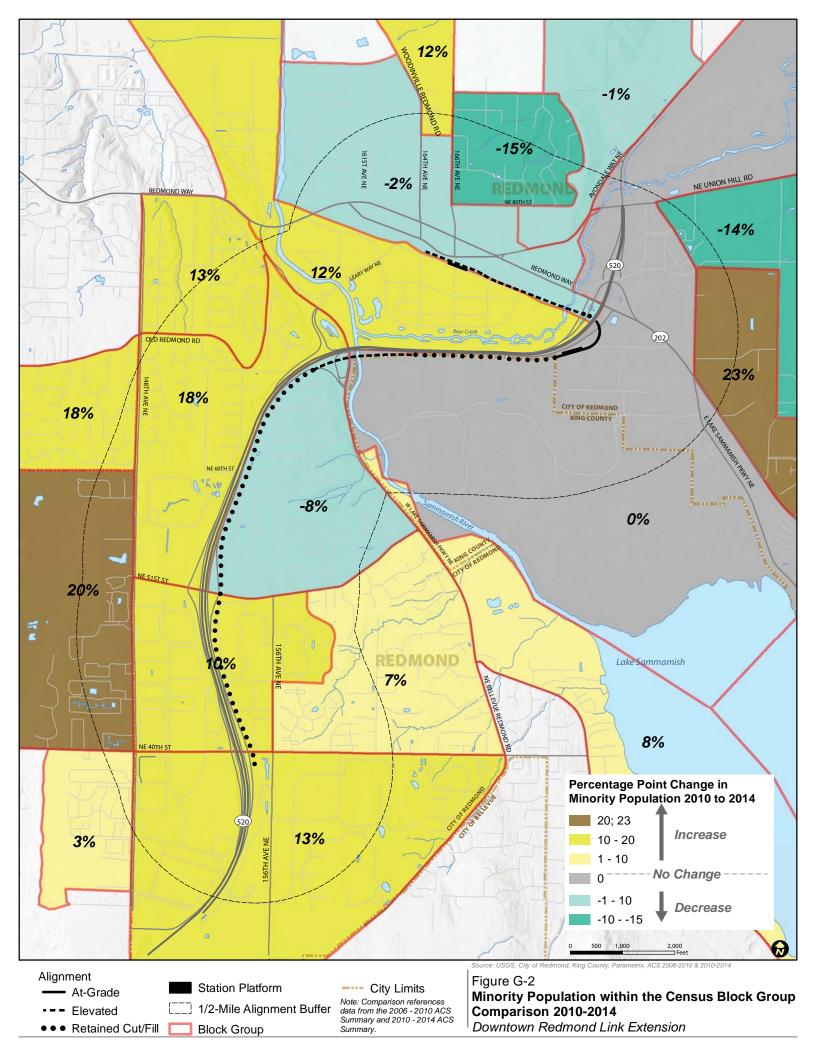
Table G-1 and Figure G-3 show the percentage point change in low-income population from 2010 to 2014. The change is highly variable across the study area and ranges from a decrease of 22 percentage points in block group 228011 to an 18 percentage point increase in block group 228033. Seven block groups show a decrease in the percentage of low-income population; nine block groups show an increase; and one block group does not change. The block groups with the largest increases in percentage point change for low-income populations are located south of NE 40th Street at the southern end of the alignment, northwest of NE 60th Street and 148th Avenue, and south and west of downtown Redmond (see Figure G-3).

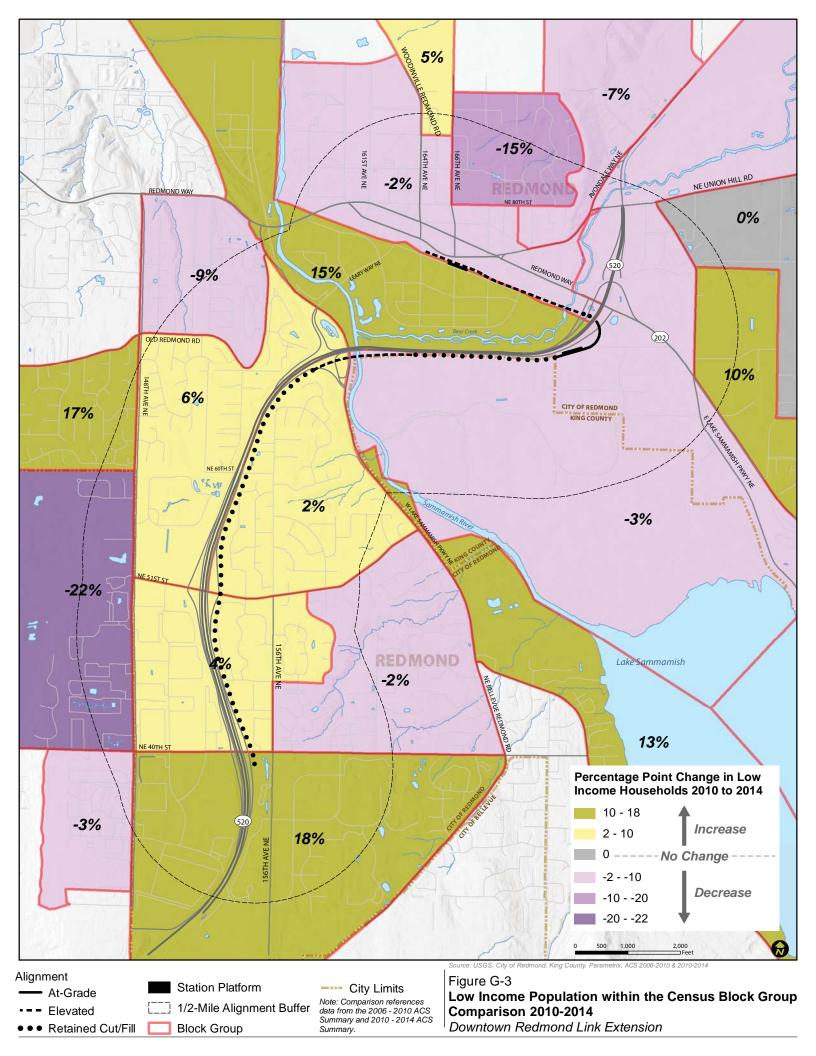
2.2 Public Elementary School Estimates

Similar to the Final EIS, census data were supplemented by data for public elementary schools with attendance boundaries that cross the study area. Although the school data do not provide for a direct comparison with the ACS 5-year Estimates data, they are useful in giving a general demographic characterization of the population in the study area.

The trends observed in the public elementary school data are generally consistent with changes in demographics provided in Attachment G1, which show an increase in Asian-American and Hispanic populations and a decrease in white populations (NCES 2017). The free lunch-eligible students stayed relatively consistent compared to ACS Estimates of low-income populations, which tended to be variable across the block groups. Because the elementary school information is based only on the portion of the general population that attends public schools, the data may not truly reflect the actual population that resides in the study area but would serve as potential indicators in changing demographics.







3. OUTREACH TO MINORITY AND LOW-INCOME POPULATIONS

Public participation is a key component of EO 12898, and the 2012 DOT Order emphasizes providing opportunities for public involvement by members of minority and low-income populations during project planning and development. Chapter 5 in the SEPA Addendum describes public outreach for the Proposed Design Refinements.

As part of the East Link Project public outreach, it was a priority to engage diverse minority and lowincome populations early in the planning and development process by providing materials and making them available in multiple formats. Sound Transit developed numerous events and tools to successfully engage and communicate with the public. These efforts included scoping meetings, workshops, fact sheets and handouts, posters, display advertisements, stakeholder briefings, project information provided at community events and festivals, and a project website that was regularly updated throughout the East Link Project. Public involvement as part of the East Link Project is described further in Appendix B, Public and Agency Involvement, in the Final EIS. The Downtown Redmond Link Extension has also engaged the public through two open houses and a "pop-up" neighborhood meeting. The open houses were publicized to residents and businesses, and advertisements were placed in publications that serve minority and non-English-speaking populations including La Raza, Seattle Chinese News, Seattle Chinese Times, and SeattleIndian.com. The public outreach efforts and methods of publicizing the events are described in Chapter 5 in the SEPA Addendum.

4. IMPACTS AND MITIGATION

The 2012 DOT Order requires agencies to explicitly consider human health and environmental effects related to transportation projects that may have a disproportionately high and adverse effect on minority or low-income populations. Section 8.b of the 2012 DOT Order allows for mitigation and enhancement measures to be considered when determining project impacts. Table G-2 summarizes the impacts, both adverse and beneficial, to minority and low-income populations as a result of the Proposed Design Refinements. It includes a summary of impacts as noted in the Final EIS (Appendix C, Environmental Justice, Table C-2); describes differences in effects on minority and low-income populations as a result of the Proposed Design Refinements; and provides information for those environmental elements where the Proposed Design Refinements would result in beneficial impacts, or the impacts would accrue to a different degree to minority and low-income populations. Table G-2 only includes elements of the environment that could have potential impacts on minority and low-income populations. As appropriate, Table G-2 describes impacts that may be differentially distributed, as well as any mitigation that would reduce or eliminate impacts.

Overall, the Proposed Design Refinements would result in impacts that would affect all populations to the same degree. Most impacts associated with the Proposed Design Refinements would be effectively mitigated, and the remaining impacts would be limited in scope and/or duration. Table G-2 also shows that although the demographics have changed since the Final EIS, the impacts from the Proposed Design Refinements are anticipated to be similar as described for the 2011 Project. Therefore, the Proposed Design Refinements would not result in any impacts that would be considered disproportionately high and adverse under EO 12898 and the 2012 DOT Order. In addition, as noted in Table G-2 and described further in Section 5, below, the Proposed Design Refinements would have beneficial effects, particularly for minority and low-income populations. These benefits further support the conclusion that no disproportionately high and adverse effects would result from the Proposed Design Refinements.

	2011 Project		Proposed Design Refinement	Proposed Design Refinements					
Element of the Environment	Impacts to Minority and Low-Income Populations ¹	Mitigation Summary	Changes in Impacts to Minority and Low-Income Populations ² Compared to 2011 Project	Mitigation Summary					
Acquisitions, Displacements, and Relocations	 2011 Project would result in 8 business displacements and 2 residential displacements. Residential relocations would occur where minority and low-income populations are low. 	 Residents and businesses displaced by the 2011 Project would receive compensation and relocation assistance in accordance with the provisions of Sound Transit's adopted Real Estate Property Acquisition and Relocation Policy, Procedures, and Guidelines. 	 Proposed Design Refinements would result in one additional residential displacement and one additional business displacement. The additional residential displacement would occur where minority and low-income populations are low. 	Same as 2011 Project					
		 Residents and businesses would be compensated for portions of property required for the 2011 Project—temporary or permanent use. 							
Economics	• 8 businesses and their employees would be displaced. It is expected that business displacements would be relocated; therefore, no long-term impacts on employees are anticipated.	Displaced businesses would receive compensation and relocation assistance in accordance with the provisions of Sound Transit's adopted Real	 Proposed Design Refinements would result in one additional business displacement. Based on a review of the businesses that could be displaced, none was identified that provide any services that would be considered uniquely 	Same as 2011 Project					
	 Based on a review of the businesses that could be displaced, none was identified that provide services focused on minority and/or low-income populations. Businesses could be owned by minorities or employ minorities and/or low- income populations; however, it is expected that the businesses would be relocated and no jobs would be lost. Impacts would not accrue to a greater degree to minority or low-income 	Estate Property Acquisition and Relocation Policy, Procedures, and Guidelines.	important to minority and/or low-income populations (e.g., ethnic grocery store or food bank). Businesses could be owned by minorities or employ minorities and/or low- income populations. Employees of the relocated businesses may be affected if the owner moves the business out of the area. It is unknown if any employees at these businesses are minority or low-income individuals.						
	populations.		• The additional business displacement would occur where minority populations are moderate and low-income populations are low.						
Visual and Aesthetic Resources	 Changes to existing visual conditions due to vegetation removal, construction of retaining walls, and the introduction of elevated structures. There would be no differences in impacts on all populations. 	 Where applicable, Sound Transit would provide replacement landscaping and consult with affected jurisdictions. Where possible, Sound Transit would preserve existing vegetation. 	 Additional visual changes in the downtown Redmond area due to the presence of the elevated guideway, but would not be a high impact given the context of the guideway along an established transportation corridor in the evolving downtown area. Other effects would remain consistent with the 2011 Project. 	Same as 2011 Project					

Table G-2. Summary of Differences in Impacts to Minority and Low-income Populations and Mitigation

Table G-2 Summary of Differences in Impacts to Minority and Low-income Populations and Mitigation (continued)

	2011 Project		Proposed Design Refinements					
Element of the Environment	Impacts to Minority and Low-Income Populations ¹	Mitigation Summary	Changes in Impacts to Minority and Low-Income Populations ² Compared to 2011 Project	Mitigation Summary				
Noise and Vibration	 Noise impacts on living and sleeping quarters would be mitigated. Most of the vibration impacts would be mitigated. Areas where vibration impacts could not be mitigated include a single-family residence in Segment E. There would be no differences in the noise and vibration impacts on all populations. 	 Noise and vibration impacts would be mitigated by installing residential sound insulation, noise walls, special trackwork, or other measures. 	 Noise and vibration impacts on living and sleeping quarters would be mitigated. 	Same as the 2011 Project				

¹ Complete information on the 2011 Project impacts is provided in Chapters 3 and 4 of the Final EIS. Mitigation measures are provided in Appendix I of the Final EIS.

² Complete information on impacts and mitigation as a result of the Proposed Design Refinements is provided in Chapter 3 of this SEPA Addendum.

5. BENEFITS

Section 8.b of the 2012 DOT Order allows for the benefits of a proposed transportation project to be considered when determining if minority and low-income populations would be affected by disproportionately high and adverse effects. The introduction of light rail service with two additional stations in Redmond offers improved access to transit; transit travel time savings; and improved accessibility to employment, education, and public services throughout the region. While all populations within the service area of the Proposed Design Refinements would realize these benefits to the same extent, they would accrue to a higher degree to minority and low-income populations as described in the Final EIS. In addition, the passage of ST3 will result in the expansion of the light rail system and will reduce headways. These service changes increase the benefits of the Proposed Design Refinements compared to the Final EIS.

6. CONCLUSION AND SUMMARY OF DIFFERENCES IN EFFECTS

Similar to the 2011 Project, the Proposed Design Refinements are not anticipated to result in any effects on minority and low-income populations that would be considered disproportionately high and adverse under EO 12898 and the 2012 DOT Order. In general, adverse impacts resulting from the Proposed Design Refinements would affect all populations to the same degree. Most impacts associated with the Proposed Design Refinements would be effectively mitigated, and the remaining impacts would be limited in scope and/or duration. In addition, the Proposed Design Refinements would have several beneficial effects, particularly for minority and low-income populations, including improved access to transit; transit travel time savings; and improved accessibility to employment. These transit benefits further support the conclusion that the Proposed Design Refinements would not result in disproportionately high and adverse effects on minority and/or low-income populations.

Attachment G1

Demographic Data

ATTACHMENT G1 DEMOGRAPHIC DATA

Introduction

Similar to the 2011 Project, the environmental justice analysis for the Proposed Design Refinements used demographic data from the U.S. Census Bureau ACS Estimates (Table G1-1) and public elementary school data from the National Center for Education Statistics (Table G1-2).

References

- Census. 2010. United States Census Bureau / Data Ferrett. 2006–2010 American Community Survey. U.S. Census Bureau's American Community Survey Office, 2010. Accessed on 25 October 2017. Accessed at: https://dataferrett.census.gov.
- Census. 2014. United States Census Bureau / Data Ferrett. 2010–2014 American Community Survey. U.S. Census Bureau's American Community Survey Office, 2014. Accessed on 25 October 2017. Accessed at: https://dataferrett.census.gov.
- NCES. 2017. National Center for Education Statistics. Accessed on 17 July 2017. Accessed at: https://nces.ed.gov/ccd/schoolsearch/.

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Block Group	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
323134	3,477	3,814	1,667	1,659	97	20	0	0	1,461	1,682	0	0	214	367	38	86	404	1,224
323092	1,815	2,714	1,038	1,471	0	22	14	0	669	1,016	0	87	19	0	75	118	166	127
323253	2,417	2,711	1,695	1,782	87	17	46	0	562	859	0	0	0	0	27	53	250	128
323133	480	830	140	354	0	0	0	0	340	364	0	0	0	0	0	112	0	0
228023	1,252	1,624	1,023	1,056	0	2	0	0	229	509	0	0	0	0	0	57	0	28
228031	850	772	387	320	0	37	0	0	369	394	0	0	94	21	0	0	94	60
226064	1,203	1,317	870	707	0	119	0	0	299	472	0	0	0	0	34	19	0	0
228012	3,757	2,880	1,096	829	117	13	0	14	2,334	1,769	0	0	175	44	35	211	235	218
228032	2,726	3,105	1,526	1,444	326	24	0	9	772	1,449	0	61	51	12	51	106	93	75
228033	1,874	1,574	1,206	776	78	0	0	0	516	720	0	0	63	0	11	78	78	20
229024	1,547	1,396	1,146	914	0	51	29	0	257	360	18	0	25	34	72	37	52	60
228021	2,025	1,721	1,428	941	0	29	43	0	457	704	0	2	0	9	97	36	66	34
228022	1,523	1,569	1,014	1,231	34	21	14	0	365	199	0	0	0	25	96	93	31	127
228011	2,481	2,613	1,342	940	0	44	0	0	963	1,554	0	0	43	61	133	14	68	119
323091	434	1,773	268	944	0	0	0	19	66	677	0	0	39	51	61	82	94	287
323132	1,236	1,111	809	721	0	53	29	0	241	278	0	0	117	0	40	59	220	137
323242	676	1,096	438	781	0	0	0	0	238	287	0	0	0	0	0	28	146	143
323243	1,604	1,715	1,223	1,170	15	21	14	12	222	251	0	0	94	194	36	67	204	373
Total Population of all Block Groups	31,377	34,335	18,316	18,040	754	473	189	54	10,360	13,544	18	150	934	818	806	1,256	2,201	3,160
Minority Population Percentage of Total Population			58%	53%	2%	1%	1%	0%	33%	39%	0%	0%	3%	2%	3%	4%	7%	9%

Table G1-1. Summary and Comparison of Demographic Populations within the Study Area by Block Group from 2010¹ to 2014²

¹ Census 2010

² Census 2014

School		Totals for whom otal Minority Data were dents Provided		American e Indian/Alaskan Asian/Pacific Native Islander			Bla	ack	Hisp	W	nite	Free Lunch Eligible				
	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015
Rush Elementary	393	538	379	888	2	1	97	173	10	11	34	68	236	258	24	40
Audubon Elementary	454	563	424	957	0	1	128	256	5	4	16	31	275	241	24	25
Redmond Elementary	423	485	388	821	2	0	87	145	22	17	62	101	215	172	104	120
Totals	1,270	1,586	1,191	1,479	4	2	312	574	37	32	112	200	726	671	152	185
Percent of Totals					0%	0%	26%	39%	3%	2%	9%	14%	61%	45%	13%	13%

Table G1-2. Comparison of Public Elementary School Demographics between 2009¹ and 2015²

¹ Source: Final EIS

² NCES 2017