



HIGHLAND, UTAH

**TRANSPORTATION
IMPACT FEE ANALYSIS**

**PREPARED BY
ZIONS PUBLIC FINANCE, INC.**

SEPTEMBER 21, 2016

TABLE OF CONTENTS

Table of Contents	2
Executive Summary	3
Recommended Transportation Impact Fees.....	3
Canal Boulevard Project	4
 Chapter 1: Overview of the Transportation Impact Fees.....	5
Why Assess an Impact Fee?	5
Costs Included in the Impact Fee	5
Costs Not Included in the Impact Fee	5
How Are the Impact Fees Calculated?	6
Description of the Service Area	6
Cost per Trip End	6
Project Costs and Financing	6
 Chapter 2: Impact From Growth Upon the City’s Facilities and Level of Service.....	7
Future Demand within the Service Area	7
Level of Service Analysis.....	7
Pass Through Traffic.....	7
Pass By Traffic	8
 Chapter 3: Future and Historic Capital Projects Costs	9
Existing Capacities Available for Growth	9
Future Project Capacities Available for Growth.....	10
Impact Fee Analysis Updates	10
Bond Debt Service	10
Grant Funds.....	11
 Chapter 4: Proportionate Share Analysis	12
Maximum Legal Transportation Impact Fees per Trip.....	13
Determination of Transportation Impact Fee	13
Non-Standard Demand Adjustments.....	14
 Appendices: Certification, Service Area Map, Impact Fee Calculations	15

EXECUTIVE SUMMARY

Highland City, Utah (the City) recently commissioned Parametrix to prepare the *Highland City Transportation Impact Fee Facilities Plan* (IFFP) dated July 2016. The City has also retained Zions Public Finance, Inc. (Zions) to calculate the City's transportation impact fees in accordance with the IFFP and Utah State Law. An impact fee is a one-time charge to new development to reimburse the City for the cost of developing roadway infrastructure that will serve future development. The impact fee will be assessed to a single, city-wide service area (Service Area). Traffic from areas outside of the City, referred to as pass through traffic, is considered non-impact fee qualifying demand.

Much of Highland City's roadways have been built by Utah County, However, the City did contribute engineering and planning to the projects expending approximately \$2,012,062 overall to construct City roadway facilities. Only \$329,365 of the total investment is impact fee qualifying. The majority of existing roadways have significant capacity to serve new growth for the next ten years or beyond but the City will need to build another \$9,464,235 (FV) of new or expansionary roadway projects in the next ten years. The City has no debt outstanding related to the construction of roadways but the City may possibly need to issue debt in approximately 2020 to help fund future improvements. The total impact fee qualifying cost of ten year improvements is estimated to be \$7,451,154, or about 79% of the anticipated cost of qualifying improvements.

FIGURE ES.1: COST PER TRIP CALCULATION WITH CANAL BLVD

Component	Total Cost	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Trips)	Cost per Trip End
Roadway Impact Fee					
Future 10 Year Capital Projects	\$ 9,464,235	78.73%	\$ 7,451,154	17,008	\$ 438
Future Growth Related Debt to be Issued - Interest Only	3,049,592	78.73%	2,400,931	17,008	141
Existing Infrastructure	8,278,410	3.98%	329,365	17,008	19
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
Roadway Impact Fee Subtotal	\$ 20,792,237		\$ 10,181,450		\$ 598.62
Professional Services / Credits					
Unspent Impact Fee Funds	-	0.00%	-	17,008	-
Professional Services / Credits	40,000	100%	40,000	17,008	2
Professional Services / Credits Subtotal	40,000		40,000		\$ 2
Total Impact Fee Per Trip	\$ 20,832,237		\$ 10,221,450		\$ 600.97

Recommended Transportation Impact Fees

As shown in Figure ES.1, the cost per trip has been calculated as \$600.97. Demand equivalencies have been determined for residential and non-residential demand based on the International Transportation Engineers (ITE) Trip Generation manuals. Figure ES.2 shows the maximum transportation impact fee for various types of residential and non-residential development.

FIGURE ES.2: MAXIMUM TRANSPORTATION IMPACT FEE SCHEDULE

Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Cost per Trip	Total Transportation Impact Fee (Per Unit)
Residential							
Single-Family	210	Dwelling Unit	9.52	4.76	100%	\$ 600.97	\$ 2,861
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	600.97	1,746
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	600.97	1,998
Senior Housing-Attached	251	Dwelling Unit	3.44	1.72	100%	600.97	1,034
Retail / Commercial							
General Commercial	820	1,000 sq	42.7	21.35	43%	600.97	\$ 5,517
Hotel / Motel	320	Rooms	5.63	2.82	75%	600.97	1,269
Office / Institutional/ Business Park							
General Office	710	1,000 sq	11.03	5.52	100%	600.97	\$ 3,314
Assisted Living	254	Beds	2.66	1.33	100%	600.97	799
Church / Synagogue	560	1,000 sq	9.11	4.56	100%	600.97	2,737
Day Care Center	565	1,000 sq	74.06	37.03	10%	600.97	2,225
Business Park	770	1,000 sq	12.44	6.22	100%	600.97	3,738

Source: ITE Trip Generation 9th Edition; Note: Pass by trip adjustments are based on ITE sample data where available

Figure ES.3 provides a calculation of the impact fee for a non-standard user that may not fit the schedule found in ES.2. It is at the Council's discretion if the non-standard calculation will be used. Otherwise the fees shown in ES.3 will be charged.

FIGURE ES.3: CALCULATION OF NON-STANDARD TRANSPORTATION IMPACT FEE

Steps in Calculating a Non-Standard Fee
Step 1: Determine Daily Trip Rate by Multiplying Average Daily Trips by half
Step 2: Determine the percentage of Daily Trip Rates that are primary trips (1- % pass-by traffic)
Step 3: Multiply Daily Trip Rate by the Percent Primary Trips and then multiply by cost per trip of \$600.97

The recommended impact fee structure presented in this analysis has been prepared to satisfy the Impact Fees Act, Utah Code Ann. § 11-36-101 et. Seq. (the "Act"), and represents the maximum transportation impact fees that the City may assess within the Service Area. The City will be required to use other revenue sources to fund projects identified in the IFFP that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service of "D" for current users.

Canal Boulevard Project

It is possible that the City will receive funding from Utah County/UDOT to construct a portion of the Canal Blvd improvements. If a project is funded by another entity at no cost to the City then that portion of the project is not impact fee eligible. The impact fee will be adjusted for grant funding to the extent it is received.

Until funding is finalized, the portion of the impact fee relating to the Canal Blvd project will be set aside and pro rata shares would be reimbursed to developers if a source other than the City ultimately funds this project. The full recommended impact fee per single family dwelling is \$2,870 including the Canal Blvd project. Without the Canal Blvd project, the impact fee is \$1,381 per single family dwelling. The difference between the two fees will be deposited into an escrow and refunded to developers if the County funds the Canal Blvd project.

CHAPTER 1: OVERVIEW OF THE TRANSPORTATION IMPACT FEES

Why Assess an Impact Fee?

An impact fee is a one-time fee, not a tax, charged to new development to recover the City's cost of constructing roadways with capacity that new growth will utilize. The fee is assessed at the time of building permit issuance as a condition of development approval. The calculation of the impact fee must strictly follow the Impact Fees Act to ensure that the fee is equitable and fair. This analysis shows that there is a fair comparison between the impact fee charged to new development and the impact the new development will have upon the system in terms of taking available capacity. An impact fee cannot include any cost related to existing user demand, such as repair and replacement costs.

This analysis provides documentation that there is a fair comparison, or rational nexus, between the impact fee charged to new development and the impact on the capacity of the system. Impact fees are charged to different types of development and the impact fee is scaled according to different levels of demand.

Costs Included in the Impact Fee

The primary roadway facilities considered in this analysis are the acquisition of right of way, construction of roadways, intersection improvements, signaling and other associated costs such as engineering, planning and legal fees. Other roadway improvements not listed may be qualifying if they are required to expand roadway capacity for new growth and are funded by the City.

The impact fees proposed in the Transportation Impact Fee Analysis are calculated based upon the costs of constructing:

- New facilities required to maintain (but not exceed) the proposed level of service of "D" identified in the IFFP; projects to be built within ten years are considered in the final calculations of the impact fee
- Interest costs related to existing and future debt associated with facilities that will serve new development
- Historic costs of existing facilities directly funded by the City or built through reimbursement agreements that will serve new development
- Cost of professional services for engineering, planning, and preparation of the impact fee facilities plan and impact fee analysis

Costs Not Included in the Impact Fee

- Operational and maintenance costs including sealing, overlays, etc.
- Cost of facilities constructed beyond 10 years
- Costs of UDOT or county roads that have not been funded by the City
- Cost of facilities funded by grants or other sources which the City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to serve future development
- Project level roadway improvements constructed by developers

How Are the Impact Fees Calculated?

A fair roadway impact fee is calculated by dividing the cost of unused capacity in the existing and future roadway facilities by the number of new trip ends that will benefit from the unused capacity. Only the City's cost of capacity that is needed to serve the projected growth that will occur in the next ten years is included in the fee. The proposed impact fees are comprised of the costs of future and existing capital projects that benefit additional development within the Service Area, interest expense of bonds that have been issued to fund growth-related projects, and professional expenses pertaining to the regular update of the IFFP and Impact Fee Analysis.

Description of the Service Area

The impact fee has been calculated for one service area which is comprised of the incorporated boundaries of Highland City. The impact fees exclude the costs of capacity related to pass-through traffic that originates and ends outside of the City boundaries.

Cost per Trip End

The unit of measurement used for transportation is the cost per trip end. A trip end is a single or one-directional vehicle movement to or from a particular site or development or the end point or destination of a trip. This analysis uses average daily trips that are attracted to a particular land use. They consider only trips that are entering and that are primary trips. Primary trips are the trip ends to a place that is considered to be the intended destination of the trip. Stops along the way to the primary destination are called pass-by trips. An example of a primary trip might be a car that leaves home to head to a grocery store. If the car stops at a gas station along the way on the primary route then the visit to the gas station is a pass by trip. If the car leaves the primary route to the grocery store and drives along an adjacent route then this is a diverted trip and is equivalent to a pass-by trip and not a primary trip.

Pass by trips, including diverted trips (trips that are diverted from nearby roadways onto adjacent streets), are not included as they are an intermediate stop on the way to a primary destination. Trip end analysis in this impact fee analysis focuses on primary trips.

The general impact fee methodology divides the available capacity of existing and future capital projects between the number of existing and future trips the projects can serve. The impact fee is then calculated based on a cost per trip end. According to ITE trip generation rates, a single family residential unit generates 9.55 trip ends per day using an average daily trip methodology.

Project Costs and Financing

The City plans a number of transportation projects to meet future demand. A portion of the improvements have been allocated to ten year growth and included in the impact fee. It is anticipated that the City will issue debt in 2020 for approximately \$6.5M to fund projects.

CHAPTER 2: IMPACT FROM GROWTH UPON THE CITY'S FACILITIES AND LEVEL OF SERVICE

Future Demand within the Service Area

Transportation demand within the City will increase as development activity rebounds and homes and businesses are built. Currently the City has 85,264 daily trip ends which are expected to grow by 17,008 to a total of 102,272 daily trip ends by 2024. The trip end calculation is net of the pass by trips that are not generated by Highland City residents. Only the increased demand from new Highland City growth will be included in impact fee calculations.

FIGURE 2.1: PROJECTED GROWTH IN TRIP ENDS

Year	Population	Annualized Growth	Total Daily Trip Ends	Annualized Growth
2015	17,355		85,264	
2016	17,617	0.15%	87,153	0.22%
2017	17,879	0.15%	89,043	0.21%
2018	18,141	0.15%	90,933	0.21%
2019	18,403	0.14%	92,823	0.21%
2020	18,665	0.14%	94,713	0.20%
2021	18,927	0.14%	96,603	0.20%
2022	19,189	0.14%	98,492	0.19%
2023	19,451	0.14%	100,382	0.19%
2024	19,713	0.13%	102,272	0.19%
Ten Year Growth	2,358	0.14%	17,008	0.20%

Source: 2015 Transportation Impact Fee Analysis Prepared by InterPlan

Assumes Total Daily Trip Ends

Level of Service Analysis

The Utah State Impact Fees Act makes it clear that impact fees cannot be used to increase the quality of public services and infrastructure for existing property owners at the expense of incoming property owners. Impact fees can only be used to perpetuate the same quality of infrastructure and services that are currently offered. In order to demonstrate that this is the case, it has become a common practice for entities assessing an impact fee to identify a Level of Service (LOS) which cannot be exceeded. The LOS is, simply stated, the demand placed upon existing public services and infrastructure by existing property owners.

Transportation level of service is identified in the IFFP as ranging from LOS "A" (free-flow traffic operations) to LOS "F" (where conditions are such that demand exceeds capacity). According to Highland City policy, all City roads are required to maintain at least a LOS "D". Impact fees are calculated according to LOS "D".

Pass Through Traffic

It is important to note that some of the roadway infrastructure usage in the City is due to pass through traffic, or traffic that has a destination beyond the impact fee service area. Demand associated with pass through is not associated with existing or current Highland City residents and was excluded from the impact fee calculation.



Pass By Traffic

Pass by traffic are the stops along the way to a primary destination. An example would be a stop at a convenience store on the way to another destination. For the purpose of this analysis only trips to primary destinations are measured in order to classify trips according to which type of land use generated the trip.

CHAPTER 3: FUTURE AND HISTORIC CAPITAL PROJECTS COSTS

The Impact Fees Act allows for the inclusion of various cost components in the calculation of the impact fees. These cost components are the construction costs of growth-driven improvements and appropriate professional services inflated from current dollars to construction year costs. Impact fees can only fund system improvements which are defined as facilities or lines that contribute to the entire system's capacity rather than just to a small, localized area. The City does not have any debt outstanding related to the Transportation system but does anticipate issuing a bond in 2020 and a portion of the interest related to that bond will be included in the impact fee calculation.

Existing Capacities Available for Growth

Existing roadway capacity and 10 year capacity estimates were provided by Parametrix. The City has expended approximately \$2,012,962 to construct existing roadway infrastructure. Based on data provided by Parametrix, 2.84% of existing infrastructure cost is attributable to ten year growth; therefore, \$329,365 was included in the impact fee calculation.

Figure 3.1: Existing Capacity

Description	Cost	2015 Volume	2015 Capacity	2025 Volume	Beyond 10 Year	Utilized	2025	Beyond 10 Year	Cost to 10 Year Growth
11800 North (Highland Blvd to 6000 West)	\$ -	4,485	11,200	9,420	1,780	40%	44%	16%	\$ -
11800 North (6000 West to East City Boundary)	-	4,485	11,200	9,520	1,680	40%	45%	15%	-
11200 North (6000 West to 5710 West)	-	750	11,200	890	10,310	7%	1%	92%	-
11200 North (5850 West to SR-74)	-	2,610	11,200	920	10,280	23%	-15%	92%	-
11200 North (SR-74 to 4800 West)	-	2,900	11,200	3,000	8,200	26%	1%	73%	-
10400 North (1200 East to 6000 West)	-	1,840	11,200	3,380	7,820	16%	14%	70%	-
10400 North (6000 West to SR-74)	-	1,840	11,200	4,820	6,380	16%	27%	57%	-
9860 North (6800 West to 6630 West)	-	1,000	11,200	1,870	9,330	9%	8%	83%	-
9860 North (Mountain View Drive to 6000 West)	-	1,000	11,200	990	10,210	9%	0%	91%	-
9860 North (6000 West to SR-74)	768,135	1,910	11,200	3,240	7,960	17%	12%	71%	91,216
9600 North (West City Boundary to 6000 West)	-	2,255	11,200	3,680	7,520	20%	13%	67%	-
9600 North (6000 West to SR-74)	-	2,255	11,200	2,280	8,920	20%	0%	80%	-
Highland Blvd (North City Boundary to SR-92) Developer Funded Portion	274,600	3,810	17,500	9,830	7,670	22%	34%	44%	94,462
6800 West (10400 North to 9600 North)	-	4,260	11,200	4,620	6,580	38%	3%	59%	-
6800 West (9600 North to South City Boundary)	-	4,760	11,200	4,500	6,700	43%	-2%	60%	-
6400 West (SR-92 to 10400 North)	-	1,420	11,200	2,050	9,150	13%	6%	82%	-
6000 West (11800 North to SR-92)	-	4,485	11,200	4,560	6,640	40%	1%	59%	-
6000 West (SR-92 to 10400 North)	-	3,545	11,200	7,370	3,830	32%	34%	34%	-
6000 West (10400 North to 9600 North)	-	3,545	11,200	4,290	6,910	32%	7%	62%	-
6000 West (9600 North to South City Boundary)	-	3,865	11,200	6,080	5,120	35%	20%	46%	-
5600 West (11200 North to SR-92)	-	2,840	11,200	5,260	5,940	25%	22%	53%	-
5600 West (SR-92 to 10400 North)	396,995	3,110	11,200	4,020	7,180	28%	8%	64%	32,256
4800 West (North City Boundary to SR-92)	-	12,725	17,500	15,870	1,630	73%	18%	9%	-
4800 West (SR-92 to Cedar Hills Drive)	573,232	12,400	41,000	20,370	20,630	30%	19%	50%	111,431
4800 West (Cedar Hills Drive to South City Boundary)	-	9,025	41,000	26,620	14,380	22%	43%	35%	-
Total	\$ 2,012,962								\$ 329,365

Future Project Capacities Available for Growth

The costs of future capital projects are defined in the corresponding Impact Fees Facilities Plan prepared by Parametrix and are summarized in Figure 3.2. Some of the projects the City has planned will not be built to full planned width and number of lanes within the impact fee planning horizon. Only the improvements that will be constructed within the planning window are included in the impact fee calculation. Planned projects include: road widening, construction of traffic signals and other growth-related system improvements.

FIGURE 3.2: CAPITAL PROJECT COSTS TO BE FUNDED THROUGH IMPACT FEES

Project Name	Year to be Constructed	2015 Cost	Construction Costs	Cost to Existing/ Non-Qualifying	Cost to 10 Year Growth	Cost to Growth Beyond 10 Years
11200 N 2 Lane Collector	2020	\$ 324,850	\$ 381,698	\$ 5,837	\$ 354,492	\$ 21,369
Madison Ave/9860 N 2 Lane Collector	2020	1,129,819	1,327,537	20,299	1,232,916	74,321
Canal Boulevard 2 Lane Collector	2020	6,000,000	7,050,000	1,057,500	5,651,803	340,697
Canal Boulevard and SR 74 Intersection	2020	300,000	352,500	277,594	70,648	4,259
Canal Boulevard and 4800 West Intersection	2020	300,000	352,500	202,688	141,295	8,517
Ten Year Total		\$ 8,054,668	\$ 9,464,235	\$ 1,563,918	\$ 7,451,154	\$ 449,163

Impact Fee Analysis Updates

As development occurs and capital project planning is periodically revised, the future lists of capital projects and their costs may be different than the information utilized in this analysis. For this reason, it is assumed that the City will perform updates to the analysis every three years. The cost of preparing this analysis, the impact fee facilities plan and the future costs of updating both documents has been included in the impact fee calculations. The 2014 cost of updating the impact fee facilities plan and impact fee analysis was approximately \$40,000 and included in the impact fee calculation.

Bond Debt Service

The City does not currently have any outstanding transportation related debt. In the future, the City intends to issue a bond in 2020 and an impact fee qualifying portion of the interest of the new bonds will be included in the impact fee calculation. Only the interest of the bond will be calculated into the impact fee and apportioned to 10-year growth or non-qualifying categories in the same manner that capital projects were allocated.

FIGURE 3.3: FUTURE TRANSPORTATION DEBT ISSUE SERIES 2020

PmtNo.	Principal	Interest	Total Principal and Interest
1	\$217,000	\$ 258,640	\$ 475,640
2	226,000	249,954	475,954
3	235,000	240,921	475,921
4	244,000	231,527	475,527
5	254,000	221,757	475,757
6	264,000	211,596	475,596
7	275,000	201,029	476,029
8	286,000	190,039	476,039
9	297,000	178,609	475,609
10	309,000	166,722	475,722
11	321,000	154,360	475,360
12	334,000	141,503	475,503
13	348,000	128,132	476,132
14	362,000	114,226	476,226
15	376,000	99,764	475,764
16	391,000	84,723	475,723
17	407,000	69,081	476,081
18	423,000	52,813	475,813
19	440,000	35,895	475,895
20	457,000	18,299	475,299
	\$ 6,466,000	\$ 3,049,592	\$ 9,515,592

Grant Funds

It is anticipated that the City will receive funding from Utah County/UDOT to construct a portion of the Canal Blvd improvements. To the extent grant funding is received, the impact fee will be adjusted to consider impact fee qualifying project costs that the City will not be required to repay. Mountainland Association of Governments (MAG) funding is possible for projects identified in later phases of the City's transportation plan but does not need to be considered in the impact fee at this time.

CHAPTER 4: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires the impact fee analysis to estimate the proportionate share of the cost for existing capacity that will be recouped as shown in Figure 3.1. The impact fee must be based on the historic costs and reasonable future costs of the system. This chapter will show in Figure 4.1 that the proposed impact fee for system improvements is reasonably related to the impact on the transportation system from new development activity.

The proportionate share analysis considers the manner of funding utilized for existing public facilities. Historically the City has funded existing infrastructure with sources including the following:

- Property Tax Revenues
- Impact Fees
- Bond Proceeds
- Mountainland Association of Governments funding for Canal Blvd project

In the future, the City will primarily rely upon property tax revenues to fund the operations and maintenance of the system. Some General Fund revenues may be used to pay the debt service of the bonds in years when impact fee revenues are insufficient to cover the annual payment to principal and interest. However, if rate revenues are used to pay what should be funded through impact fees (due to a shortfall in impact fee revenues) then the general fund will be repaid with impact fees for what the impact fee fund needed to borrow.

Grant funding for impact fee qualifying transportation projects is not anticipated. However, if they are received, future impact fees will be discounted according to the size of grant and what it will be intended to fund.

Developer Credits

If a project included in the Impact Fee Facilities Plan (or a project that will offset the demand for a system improvement that is listed in the IFFP) is constructed by a developer then that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f)). There are currently no situations anticipated in this analysis that would entitle a developer to a credit.

Time-Price Differential

Utah Code 11-36a-301(2)(h) allows for the inclusion of a time-price differential in order to create fairness for amounts paid at different times. To address the time-price differential, this analysis includes an inflationary component to account for construction inflation for future projects. Projects constructed after the year 2014 will be calculated at a future value as shown in Appendix E. All users who pay an impact fee today or within the next six to ten years will benefit from projects to be constructed and included in the fee.

FIGURE 4.1: TRANSPORTATION IMPACT FEE CALCULATION

Component	Total Cost	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Trips)	Cost per Trip End
Roadway Impact Fee					
Future 10 Year Capital Projects	\$ 9,464,235	78.73%	\$ 7,451,154	17,008	\$ 438
Future Growth Related Debt to be Issued - Interest Only	3,049,592	78.73%	2,400,931	17,008	141
Existing Infrastructure	8,278,410	3.98%	329,365	17,008	19
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
Roadway Impact Fee Subtotal	\$ 20,792,237		\$ 10,181,450		\$ 598.62
Professional Services / Credits					
Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
Professional Services / Credits	40,000	100%	40,000	17,008	2
Professional Services / Credits Subtotal	40,000		40,000		\$ 2
Total Impact Fee Per Trip	\$ 20,832,237		\$ 10,221,450		\$ 600.97

Maximum Legal Transportation Impact Fees per Trip

As shown in Figure 4.1, the maximum legal impact fee per trip is calculated to be \$436.42. An impact fee is then calculated based on development type and the net adjusted trips that the development type generates. This fee is the combination of individual fees for the buy in to existing facilities, future facilities, future bond interest and professional fees. Each fee for individual components is based upon the historic and future costs divided by the total available capacities. This results in a very precise impact fee per trip and complies with the Impact Fees Act.

Determination of Transportation Impact Fee

The impact fees to be paid by different residential and non-residential users are assessed according to trips. The impact fee calculated per trip is multiplied by the number of trips a development type generates. A single family home generates 9.55 trips. The impact fee is assessed by land use according to the table below.

FIGURE 4.2: MAXIMUM IMPACT FEE SCHEDULE

Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Cost per Trip	Total Transportation Impact Fee (Per Unit)
Residential							
Single-Family	210	Dwelling Unit	9.52	4.76	100%	\$ 600.97	\$ 2,861
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	600.97	1,746
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	600.97	1,998
Senior Housing-Attached	251	Dwelling Unit	3.44	1.72	100%	600.97	1,034
Retail / Commercial							
General Commercial	820	1,000 sq	42.7	21.35	43%	600.97	\$ 5,517
Hotel / Motel	320	Rooms	5.63	2.82	75%	600.97	1,269
Office / Institutional/ Business Park							
General Office	710	1,000 sq	11.03	5.52	100%	600.97	\$ 3,314
Assisted Living	254	Beds	2.66	1.33	100%	600.97	799
Church / Synagogue	560	1,000 sq	9.11	4.56	100%	600.97	2,737
Day Care Center	565	1,000 sq	74.06	37.03	10%	600.97	2,225
Business Park	770	1,000 sq	12.44	6.22	100%	600.97	3,738

Source: ITE Trip Generation 9th Edition; Note: Pass by trip adjustments are based on ITE sample data where available

Non-Standard Demand Adjustments

The City reserves the right under the Impact Fees Act (Utah Code 11-36-402(1)(c,d)) to assess an adjusted fee to respond to unusual circumstances and to ensure that the impact fees are assessed fairly. The impact fee ordinance must include a provision that permits adjustment of the fee for a particular development based upon studies and data submitted by the developer that indicate a more realistic and accurate impact upon the City's infrastructure.

The impact fee formula shown below in Figure 4.3 for a non-standard user is shown below.

FIGURE 4.3: CALCULATION OF NON-STANDARD IMPACT FEE

Steps in Calculating a Non-Standard Fee	
Step 1:	Determine Daily Trip Rate by Multiplying Average Daily Trips by half
Step 2:	Determine the percentage of Daily Trip Rates that are primary trips (1- % pass-by traffic)
Step 3:	Multiply Daily Trip Rate by the Percent Primary Trips and then multiply by cost per trip of \$600.97

APPENDICES: CERTIFICATION, SERVICE AREA MAP, IMPACT FEE CALCULATIONS

In accordance with Utah Code Annotated, 11-36a-306(2), Zions Public Finance, Inc. (Zions), makes the following certification:

Zions certifies that the attached impact fee analysis:

1. includes only the cost of public facilities that are:
 - a. allowed under the Impact Fees Act; and
 - b. actually incurred; or
 - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offset costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

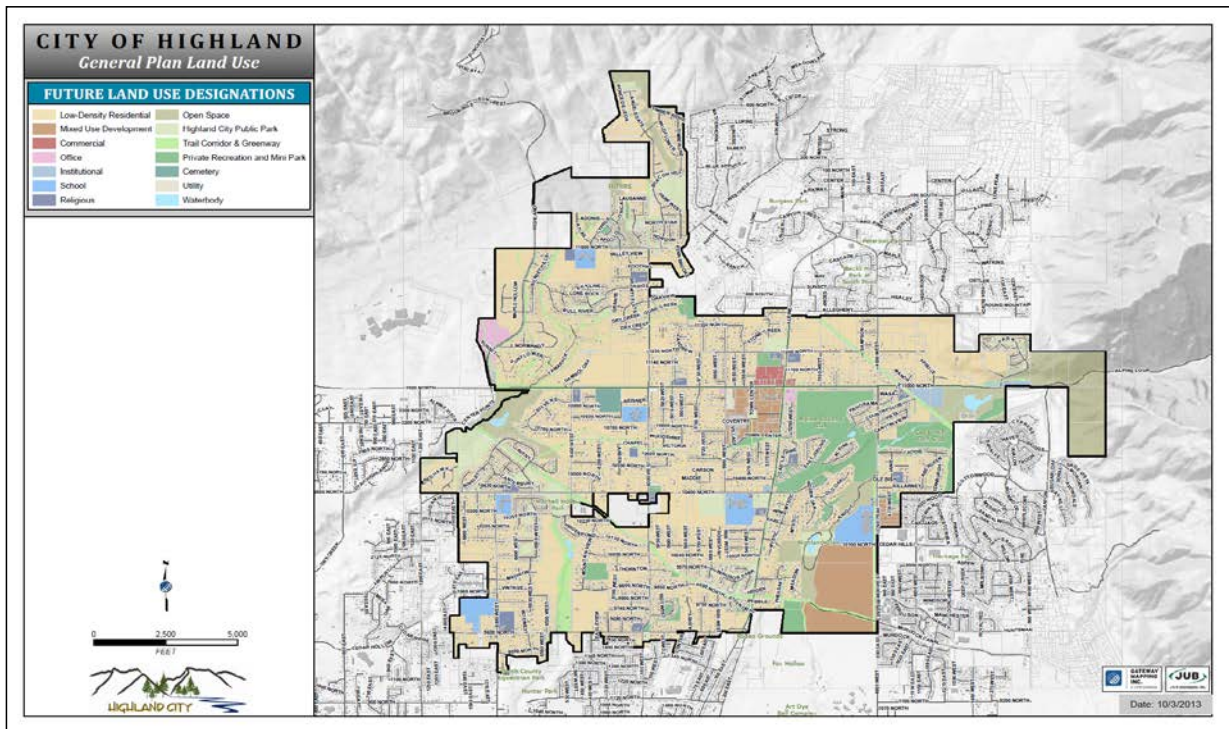
Zions Public Finance, Inc. makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by City staff and Council in accordance to the specific policies established for the Service Area.
2. If all or a portion of the IFFP or impact fee analysis are modified or amended, this certification is no longer valid.
3. All information provided to Zions Public Finance, Inc., its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Highland City and outside sources. Copies of letters requesting data are included as appendices to the IFFP and the impact fee analysis.

Dated: 9/21/2016

ZIONS PUBLIC FINANCE, INC.

APPENDIX A: SERVICE AREA MAP



APPENDIX B: GROWTH IN DEMAND

	A	B	C	D	E	
1	Projected Traffic Demands - Population, Average Daily Trips					1
2	Year	Population	Annualized Growth	Total Daily Trip Ends	Annualized Growth	2
3	2015	17,355		85,264		3
4	2016	17,617	0.15%	87,153	0.22%	4
5	2017	17,879	0.15%	89,043	0.21%	5
6	2018	18,141	0.15%	90,933	0.21%	6
7	2019	18,403	0.14%	92,823	0.21%	7
8	2020	18,665	0.14%	94,713	0.20%	8
9	2021	18,927	0.14%	96,603	0.20%	9
10	2022	19,189	0.14%	98,492	0.19%	10
11	2023	19,451	0.14%	100,382	0.19%	11
12	2024	19,713	0.13%	102,272	0.19%	12
13	Ten Year Growth	2,358	0.14%	17,008	0.20%	13
14	<i>Source: 2015 Transportation Impact Fee Analysis Prepared by Parametrix</i>					14
15	<i>Assumes Total Daily Trip Ends</i>					15
16						16
	A	B	C	D	E	

APPENDIX C: LEVEL OF SERVICE

	A	B	C	D	
1	Level of Service Standards for Historical and Future Roadway Infrastructure				1
2	Roadway Infrastructure Category	Historical LOS/ City Code	2025 LOS	Full Development LOS	2
3	Arterial Streets	D	D	D	3
4	Major Collector	D	D	D	4
5	Mnor Collector	D	D	D	5
6	Local Streets	D	D	D	6
7	<i>Source: 2015 Transportation Impact Fee Facilities Plan Prepared by Parametrix</i>				7
	A	B	C	D	

APPENDIX D: BUY IN COSTS

	A	B	C	D	E	F	G	H	I	J	K	L	
1	Description	Cost	2015 Lanes	2015 Functional Classification	2015 Volume	2015 Capacity	2025 Volume	Beyond 10 Year	Utilized	2025	Beyond 10 Year	Cost to 10 Year Growth	1
2	11800 North (Highland Blvd to 6000 West)	\$ -	2	Major Collector	4,485	11,200	9,420	1,780	40%	44%	16%	\$ -	2
3	11800 North (6000 West to East City Boundary)	-	2	Major Collector	4,485	11,200	9,520	1,680	40%	45%	15%	-	3
4	11200 North (6000 West to 5710 West)	-	2	Minor Collector	750	11,200	890	10,310	7%	1%	92%	-	4
5	11200 North (5850 West to SR-74)	-	2	Minor Collector	2,610	11,200	920	10,280	23%	-15%	92%	-	5
6	11200 North (SR-74 to 4800 West)	-	2	Minor Collector	2,900	11,200	3,000	8,200	26%	1%	73%	-	6
7	10400 North (1200 East to 6000 West)	-	2	Major Collector	1,840	11,200	3,380	7,820	16%	14%	70%	-	7
8	10400 North (6000 West to SR-74)	-	2	Major Collector	1,840	11,200	4,820	6,380	16%	27%	57%	-	8
9	9860 North (6800 West to 6630 West)	-	2	Minor Collector	1,000	11,200	1,870	9,330	9%	8%	83%	-	9
10	9860 North (Mountain View Drive to 6000 West)	-	2	Minor Collector	1,000	11,200	990	10,210	9%	0%	91%	-	10
11	9860 North (6000 West to SR-74)	768,135	2	Minor Collector	1,910	11,200	3,240	7,960	17%	12%	71%	91,216	11
12	9600 North (West City Boundary to 6000 West)	-	2	Major Collector	2,255	11,200	3,680	7,520	20%	13%	67%	-	12
13	9600 North (6000 West to SR-74)	-	2	Major Collector	2,255	11,200	2,280	8,920	20%	0%	80%	-	13
14	Highland Blvd (North City Boundary to SR-92) Developer Funded Portion	274,600	3	Major Collector	3,810	17,500	9,830	7,670	22%	34%	44%	94,462.40	14
15	6800 West (10400 North to 9600 North)	-	2	Minor Collector	4,260	11,200	4,620	6,580	38%	3%	59%	-	15
16	6800 West (9600 North to South City Boundary)	-	2	Minor Collector	4,760	11,200	4,500	6,700	43%	-2%	60%	-	16
17	6400 West (SR-92 to 10400 North)	-	2	Minor Collector	1,420	11,200	2,050	9,150	13%	6%	82%	-	17
18	6000 West (11800 North to SR-92)	-	2	Major Collector	4,485	11,200	4,560	6,640	40%	1%	59%	-	18
19	6000 West (SR-92 to 10400 North)	-	2	Major Collector	3,545	11,200	7,370	3,830	32%	34%	34%	-	19
20	6000 West (10400 North to 9600 North)	-	2	Major Collector	3,545	11,200	4,290	6,910	32%	7%	62%	-	20
21	6000 West (9600 North to South City Boundary)	-	2	Major Collector	3,865	11,200	6,080	5,120	35%	20%	46%	-	21
22	5600 West (11200 North to SR-92)	-	2	Minor Collector	2,840	11,200	5,260	5,940	25%	22%	53%	-	22
23	5600 West (SR-92 to 10400 North)	396,995	2	Minor Collector	3,110	11,200	4,020	7,180	28%	8%	64%	32,256	23
24	4800 West (North City Boundary to SR-92)	-	3	Minor Arterial	12,725	17,500	15,870	1,630	73%	18%	9%	-	24
25	4800 West (SR-92 to Cedar Hills Drive)	573,232	5	Minor Arterial	12,400	41,000	20,370	20,630	30%	19%	50%	111,431	25
26	4800 West (Cedar Hills Drive to South City Boundary)	-	5	Minor Arterial	9,025	41,000	26,620	14,380	22%	43%	35%	-	26
27	Total	\$ 2,012,962										\$ 329,365	27

A B C D E F G H I J

	A	B	C	D	E	F	G	H	I	J	K	L	M	
1	Future Project Construction Year Costs													1
2														2
3	Table E.1: Capital Project Overview													3
4	Project Name		Project ID	Year to be Constructed	2015 Cost	Construction Costs	% to Existing/ Non-Qualifying	% to 10 Year Growth	% to Growth Beyond 10 Years	Cost to Existing/ Non-Qualifying	Cost to 10 Year Growth	Cost to Growth Beyond 10 Years		
5														
6	11200 N 2 Lane Collector		A1	2020	\$ 324,850	\$ 381,698	0.0%	94.3%	5.7%	\$ 5,837	\$ 354,492	\$ 21,369		
7	Madison Ave/9860 N 2 Lane Collector		B1	2020	1,129,819	1,327,537	0.0%	94.3%	5.7%	20,299	1,232,916	74,321		
8	Canal Boulevard 2 Lane Collector		C1	2020	6,000,000	7,050,000	15.0%	80.2%	4.8%	1,057,500	5,651,803	340,697		
9	Canal Boulevard and SR 74 Intersection		1	2020	300,000	352,500	57.5%	40.1%	2.4%	277,594	70,648	4,259		
10	Canal Boulevard and 4800 West Intersection		2	2020	300,000	352,500	57.5%	40.1%	2.4%	202,688	141,295	8,517		
11														
12														
13	Ten Year Total				\$ 8,054,668	\$ 9,464,235				\$ 1,563,918	\$ 7,451,154	\$ 449,163		
14														14
15	Table E.2: Total Capital Projects by Year													15
16	Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals	
17	11200 N 2 Lane Collector	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 381,698	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 381,698	
18	Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	1,327,537	-	-	-	-	-	1,327,537	
19	Canal Boulevard 2 Lane Collector	-	-	-	-	-	7,050,000	-	-	-	-	-	7,050,000	
20	Canal Boulevard and SR 74 Intersection	-	-	-	-	-	352,500	-	-	-	-	-	352,500	
21	Canal Boulevard and 4800 West Intersection	-	-	-	-	-	352,500	-	-	-	-	-	352,500	
22														22
23														23
24	Total Capital Projects	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,464,235	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,464,235	
25	A	B	C	D	E	F	G	H	I	J	K	L	M	

	A	B	C	D	E	F	G	H	I	J	K	L	M	
	Table E.3: Existing / Project Level													
1	Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals	1
2	11200 N 2 Lane Collector	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2
3	Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	-	-	-	-	-	-	-	3
4	Canal Boulevard 2 Lane Collector	-	-	-	-	-	1,057,500	-	-	-	-	-	1,057,500	4
5	Canal Boulevard and SR 74 Intersection	-	-	-	-	-	202,688	-	-	-	-	-	202,688	5
6	Canal Boulevard and 4800 West Intersection	-	-	-	-	-	202,688	-	-	-	-	-	202,688	6
7														7
8														8
9		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,462,875	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,462,875	9
10														10

11	Table E.4: 10 Year Growth													11
12	Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals	12
13	11200 N 2 Lane Collector	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 359,997	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 359,997	13
14	Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	1,252,061	-	-	-	-	-	1,252,061	14
15	Canal Boulevard 2 Lane Collector	-	-	-	-	-	5,651,803	-	-	-	-	-	5,651,803	15
16	Canal Boulevard and SR 74 Intersection	-	-	-	-	-	141,295	-	-	-	-	-	141,295	16
17	Canal Boulevard and 4800 West Intersection	-	-	-	-	-	141,295	-	-	-	-	-	141,295	17
18														18
19														19
20		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,546,452	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,546,452	20
21														21

22	Table E.5: Beyond 10 Year Growth													22
23	Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals	23
24	11200 N 2 Lane Collector	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,701	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,701	24
25	Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	75,476	-	-	-	-	-	75,476	25
26	Canal Boulevard 2 Lane Collector	-	-	-	-	-	340,697	-	-	-	-	-	340,697	26
27	Canal Boulevard and SR 74 Intersection	-	-	-	-	-	8,517	-	-	-	-	-	8,517	27
28	Canal Boulevard and 4800 West Intersection	-	-	-	-	-	8,517	-	-	-	-	-	8,517	28
29														29
30														30
31		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 454,908	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 454,908	31
	A	B	C	D	E	F	G	H	I	J	K	L	M	

APPENDIX F: EXISTING AND FUTURE BONDS

A

B

C

D

Summary of Future Bond

Inputs	
Proceeds	\$6,217,219
Annual Interest Rate	4.00%
Cost of Issuance	4.00%
Number of Years	20
Par Amount	\$6,466,000

Future Bond #1

PmtNo.	Principal	Interest	Total Principal and Interest
1	\$217,000	\$ 258,640	\$ 475,640
2	226,000	249,954	475,954
3	235,000	240,921	475,921
4	244,000	231,527	475,527
5	254,000	221,757	475,757
6	264,000	211,596	475,596
7	275,000	201,029	476,029
8	286,000	190,039	476,039
9	297,000	178,609	475,609
10	309,000	166,722	475,722
11	321,000	154,360	475,360
12	334,000	141,503	475,503
13	348,000	128,132	476,132
14	362,000	114,226	476,226
15	376,000	99,764	475,764
16	391,000	84,723	475,723
17	407,000	69,081	476,081
18	423,000	52,813	475,813
19	440,000	35,895	475,895
20	457,000	18,299	475,299
\$ 6,466,000	\$ 3,049,592	\$ 9,515,592	

Source: Zions Public Finance, Inc.

A

B

C

D

APPENDIX G: COST PER TRIP CALCULATION

	A	B	C	D	E	F	
1	Summary of Existing Capacity of Roadway Infrastructure for which Ten Year Growth is Responsible						1
2	Component	Total Cost	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Trips)	Cost per Trip End	2
3	Roadway Impact Fee						3
4	Future 10 Year Capital Projects	\$ 9,464,235	78.73%	\$ 7,451,154	17,008	\$ 438	4
5	Future Growth Related Debt to be Issued - Interest Only	3,049,592	78.73%	2,400,931	17,008	141	5
6	Existing Infrastructure	2,012,962	16.36%	329,365	17,008	19	6
7	Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-	7
8							8
9	Roadway Impact Fee Subtotal	\$ 14,526,789		\$ 10,181,450		\$ 598.62	9
10							10
11	Professional Services / Credits						11
12	Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -	12
13	Professional Services / Credits	40,000	100%	40,000	17,008	2	13
14	Professional Services / Credits Subtotal	40,000		40,000		\$ 2	14
15							15
16	Total Impact Fee Per Trip	\$ 14,566,789		\$ 10,221,450		\$ 600.97	16

A B C D E F

APPENDIX H: ITE TRIP GENERATION DATA

	A	B	C	D	E	F	G	H	
1	Institute of Transportation Engineers (ITE) Data Showing Trips Per Type of Land Use Per Unit								1
2	Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Cost per Trip	Total Transportation Impact Fee (Per Unit)	2
3	Residential								3
4	Single-Family	210	Dwelling Unit	9.52	4.76	100%	\$ 600.97	\$ 2,861	4
5	Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	600.97	1,746	5
6	Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	600.97	1,998	6
7	Senior Housing-Attached	251	Dwelling Unit	3.44	1.72	100%	600.97	1,034	7
8	Retail / Commercial								8
9	General Commercial	820	1,000 sq	42.7	21.35	43%	600.97	\$ 5,517	9
10	Hotel / Motel	320	Rooms	5.63	2.82	75%	600.97	1,269	10
11	Office / Institutional/ Business Park								11
12	General Office	710	1,000 sq	11.03	5.52	100%	600.97	\$ 3,314	12
13	Assisted Living	254	Beds	2.66	1.33	100%	600.97	799	13
14	Church / Synagogue	560	1,000 sq	9.11	4.56	100%	600.97	2,737	14
15	Day Care Center	565	1,000 sq	74.06	37.03	10%	600.97	2,225	15
16	Business Park	770	1,000 sq	12.44	6.22	100%	600.97	3,738	16
17	Source: ITE Trip Generation 9th Edition; Note: Pass by trip adjustments are based on ITE sample data where available								17
18									18
19	Non Standard Demand Adjustment								19
20	Steps in Calculating a Non-Standard Fee								20
21	Step 1: Determine Daily Trip Rate by Multiplying Average Daily Trips by half								21
22	Step 2: Determine the percentage of Daily Trip Rates that are primary trips (1- % pass-by traffic)								22
23	Step 3: Multiply Daily Trip Rate by the Percent Primary Trips and then multiply by cost per trip of \$600.97								23
24									24
	A	B	C	D	E	F	G	H	