

Providence City Corporation

Transportation Impact Fee Facilities Plan



Publication Date: February 14, 2018



Prepared by

CRS ENGINEERS
Answers to Infrastructure®

2 North Main, Suite 8
Providence, Utah 84332 - (435) 374-4670

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1.0 EXECUTIVE SUMMARY

The impact fee facilities plan (IFFP) based on the improvements proposed in the City's Transportation Master Plan and the City's Traffic Model Report. These reports identify the improvements that will need to be made to the transportation system as the City approaches built out conditions.

The purpose of an IFFP is to identify the portion of the improvement costs that are placed upon the City by future development. This IFFP provides a technical basis for assessing updated impact fees throughout the City based on current landuse and population projections.

LEVEL OF SERVICE

Level of Service (LOS) defines the minimum standard to which the transportation system will be built. The IFFP identifies the existing LOS and establishes the proposed LOS for future infrastructure. The existing LOS for most Providence City is LOS C or better. LOS C is described in the Highway Capacity Manual (HCM) as "stable operations". The following table has been used to determine the LOS for roadways in Providence based on peak hour traffic volumes per lane of traffic.

Table 1-1: Roadway Capacity LOS Standards						
Speed (mph)	Roadway Capacity (cars/hour/lane)					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
20	220	350	520	700	900	901+
25	270	470	670	880	1,150	1,151+
30	320	550	800	1,075	1,375	1,376+
35	370	620	900	1,220	1,590	1,591+
40	440	700	1,040	1,400	1,820	1,821+

REQUIRED SYSTEM IMPROVEMENTS

In order to maintain LOS C on Providence's roadways, the City has planned the following improvements to be completed over the next 10 years. Table 1-2 shows projected traffic volumes for each roadway as well as the percent of total traffic projected by 2060.

TABLE 1-2: TRAFFIC VOLUME PROJECTIONS FOR 10-YEAR PROJECTS						
Road Name	Peak Hour Volume (2017)	Peak Hour Volume (2027)	Peak Hour Volume (2060)	Percent 2017 Volume	Percent 2027 Volume	Percent 2060 Volume
Spring Creek Parkway (West)	69	200	374	18.5%	35.0%	46.5%
Spring Creek Parkway (East)	19	169	332	5.7%	45.2%	49.1%
100 South	200	305	473	42.3%	22.2%	35.5%

Additionally, cost estimates were calculated for each project. Costs were divided between existing and future users. To meet the requirements of state law, Table 1-3 summarizes the cost associated with existing users and future users. Future users were separated further to account for growth in the 10-year planning window of this report and capacity for growth beyond 10-years.

TABLE 1-3: PROVIDENCE CITY CAPITAL IMPROVEMENT COSTS					
Project Description	Roadway Length (ft)	Percent Existing	Percent 10-Year	Percent Beyond 10 Years	Total Cost
Extend Spring Creek Pkwy from approximately 150 W to 100 W	380	\$49,297.05	\$93,592.95	\$124,314.30	\$267,204.30
Extend Spring Creek Pkwy across Spring Creek	200	\$16,656.59	\$131,499.43	\$142,896.05	\$291,052.08
Extend 100 S from approximately 400 W to 200 W	1,350	\$256,373.53	\$134,596.10	\$215,353.77	\$606,323.40
Totals		\$322,327.18	\$359,688.49	\$482,564.12	\$1,164,579.78

2.0 INTRODUCTION

Providence City has retained CRS Engineers to prepare an impact fee facility plan (IFFP) for roadway projects in Providence City. CRS developed a model to identify potential roadway deficiencies in the City and worked with City staff to identify priority projects needed in the next 5-10 years. The objective of the IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Much of the analysis used in this IFFP come from the City's "Transportation Master Plan" and a recent "Traffic Model Report" completed by CRS Engineers. The City's transportation master plan can be found on the City's website and was last updated in February 2018.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36 of the Utah code (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth
4. Identify demands placed upon existing public facilities by new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues
 - a. Revenue sources to finance required system improvements
 - b. Necessity of improvements to maintain the proposed level of service
 - c. Need for facilities relative to planned locations of schools

This report has been prepared and organized to address each of these requirements.

3.0 EXISTING LEVEL OF SERVICE

Level of service (LOS) is defined in the Impact Fees Act as “the defined performance standard or unit of demand for each capital component of a public facility within a service area”. This section discusses the level of service being currently provided to existing users.

PERFORMANCE STANDARD

Each road in Providence City’s transportation network is classified based on its function. Providence City has identified the following four roadway types; Residential, Residential G.P., Commercial, and Major. These roadway cross sections are defined in the City’s “Standard Construction Drawings”. Most of Providence City roads are residential, which are considered “project improvements”. “Project improvements” are typically local roads serving a single development and are generally completed at the developer’s expense. In addition to “project improvements, the City has many roads that provide continuous routes through the City that will be referred to as “system improvements”. These roadways are generally more expensive than “project improvements” and typically serve multiple developments.

Traffic demand is measured by the volume of traffic that accesses a roadway. The maximum volume that a roadway can accommodate is its traffic capacity. The Highway Capacity Manual 2010 uses a combination of density, speed, and flow rate to determine level of service (LOS). The following table was developed based on a figure from the Highway Capacity Manual 2010 and will be used to determine the LOS for roadways in Providence. Capacities shown are based on a single lane of travel. For example, a roadway with a LOS C and a speed limit of 35 mph will have a capacity of 900 vehicles per hour per lane of traffic.

Table 3-1: Roadway Capacity LOS Standards						
Speed (mph)	Roadway Capacity (cars/hour/lane)					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
20	220	350	520	700	900	901+
25	270	470	670	880	1,150	1,151+
30	320	550	800	1,075	1,375	1,376+
35	370	620	900	1,220	1,590	1,591+
40	440	700	1,040	1,400	1,820	1,821+

DETERMINATION OF EXISTING LOS

CRS Engineers worked with Providence City to identify roadway segments in the City that were to be studied. Traffic counts were taken along segments of these roadways and a traffic model was developed. The speed limit was gathered for each section and the LOS was identified from the City’s traffic model. Traffic volumes vary based on direction, but to be conservative, roadways have been evaluated based on the lane of traffic having the highest volume. Table 3-2 presents the results of the traffic model along with the calculated LOS for different roadway segments in the City.

TABLE 3-2: EXISTING Roadway Capacity LOS				
Road Name	Segment	Speed Limit (mph)	Peak Hour Volume (pc/hr/ln)	LOS
Gateway Drive	Golf Course Road to Spring Creek Parkway	30	575	C
Gateway Drive	100 North to Spring Creek Parkway	30	721	C
Gateway Drive	100 South to 100 North	30	73	A
Gateway Drive	300 South to 100 South	25	90	A
Gateway Drive	450 South to 300 South	25	82	A
200 West	100 South to 100 North	30	250	A
200 West	300 South to 100 South	30	269	A
200 West	450 South to 300 South	30	224	A
100 West	Providence City Limits to Spring Creek Parkway	30	230	A
100 West	Spring Creek Parkway to 280 North	30	218	A
100 West	280 North to 100 North	30	212	A
100 West	100 South to 100 North	25	36	A
300 East	Providence City Limits to Spring Creek Parkway	25	140	A
300 East	Spring Creek Parkway to 100 North	25	140	A
Spring Creek Parkway	Golf Course Road to Bluff Street	25	165	A
Spring Creek Parkway	100 West to 100 East	25	79	A
280 North	Bluff Street and 100 West	25	118	A
100 North	Highway 165 to Gateway Drive	30	816	D
100 North	Gateway Drive to 200 West	30	619	C
100 North	200 West to 100 West	25	414	B
100 North	100 West to 300 East	25	311	B
100 South	200 West to 400 West	25	22	A
100 South	200 West to 100 West	25	27	A
300 South	Highway 165 to 485 West	30	217	A
300 South	485 West to 200 West	30	239	A
300 South	200 West to 100 West	30	238	A
Center Street	350 East to Fox Ridge Drive	25	119	A

As can be seen in Table 3-2, most of the roads in Providence operate at LOS C or better. Therefore, the City's existing LOS is C. It should be noted that Westbound traffic on 100 North between Gateway Drive and Highway 165 is barely deficient today. This is the main entrance to the City, and is expected to have one of the highest volumes in the City.

4.0 PROPOSED LEVEL OF SERVICE

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. Diminish or equal the existing level of service; or
2. Exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

DETERMINATION OF PROPOSED LOS

Providence City's intent regarding the proposed LOS is to maintain all roads at LOS C. This will be accomplished by making incremental improvements to the existing system as the demands within the system grow. With the level of development that the City anticipates this is an economical goal that will allow the City to grow, and provide adequate service to current and future residents.

5.0 EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH

Projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities.

EXISTING TRAFFIC DEMAND AND EXCESS CAPACITY CALCULATIONS

Traffic in Providence City flows mostly Eastward or Westward, depending on the time of day. Traffic counts were taken along each roadway to identify the existing volume. Table 5-1 shows studied roadways in Providence City with the associated speed limit, existing volume, roadway capacity, and existing excess capacity. The speed limit, capacity, and volume of each roadway will vary for each segment of the roadway. Table 5-1 shows the highest volumes and the smallest excess capacity that was identified on any segment of the roadway.

TABLE 5-1: EXISTING INFRASTRUCTURE				
Road Name	Miles per Hour	Peak Hour Cars per Lane		
	Speed Limit	LOS C Capacity	Traffic Count (2017)	Excess Capacity
Gateway Drive	30	800	721	79
200 West	30	800	269	531
100 West	30	800	230	570
300 East	25	670	140	530
Spring Creek Parkway	25	670	165	505
280 North	25	670	118	552
100 North	30	800	816	0
100 South	25	670	27	643
300 South	30	800	239	561
Center Street	25	670	119	551

The City looks to utilize LOS C capacity versus existing traffic demands “excess capacity” to determine roadway improvements as outlined in the City’s Master Plan and Traffic Model Report. It is important to remember that excess capacity can only be used in areas where there are traffic demands.

6.0 DEMANDS OF NEW DEVELOPMENT

The planning period used for this IFFP was 10-years. Table 6-1 lists the population projections for the City. The Census Bureau's Population Estimates were used for the 2016 population. The Governor's Office of Management and Budget projections were then used to project population into the future.

Table 6-1: Population Projections	
Year	Providence City Population Projection
2017	7,467
2027	9,964
2060	18,177

CONVERSION OF GROWTH AND DEVELOPMENT TO GROSS ACRES

The city has planned for growth according to different zoning types as outlined in the City's zoning maps. CRS worked with City staff to determine areas of the City that are most likely to develop in the next 10-Years. Table 6-2 shows the amount of land that is developed today along with future projections.

Table 6-2: Developed Land Projections	
Type	Gross Acreage
Existing Developed Area (Acres)	1455.4
Projected 10-Year Developed Area (Acres)	277.1
Beyond 10-Year Developed Area (Acres)	911.9
Total	2644.4

Table 6-2 shows that approximately 277 acres are proposed to be developed over the next 10 years. A combination of historic traffic patterns, average traffic demand for various land uses, and population projections were used to estimate future traffic volumes as outlined in the City's Traffic Model Report.

7.0 MEANS BY WHICH DEMANDS FROM NEW DEVELOPMENT WILL BE MET

To satisfy the requirements of state law, demand placed upon system facilities by future development was projected using the process outlined below.

1. **Existing Capacity**—The capacities of the existing facilities were evaluated using the City's traffic model.
2. **Existing Deficiencies**—Existing deficiencies were identified by comparing defined level of service against existing capacity.
3. **Future Demand**—The demand that future development will place on the system was estimated based on development projections as discussed in Section 6.0.
4. **Future Deficiencies**—Future deficiencies in the transportation network were identified based on the defined level of service.
5. **Recommended Improvements**—Needed transportation improvements were identified to resolve the future deficiencies.

TRANSPORTATION PLAN

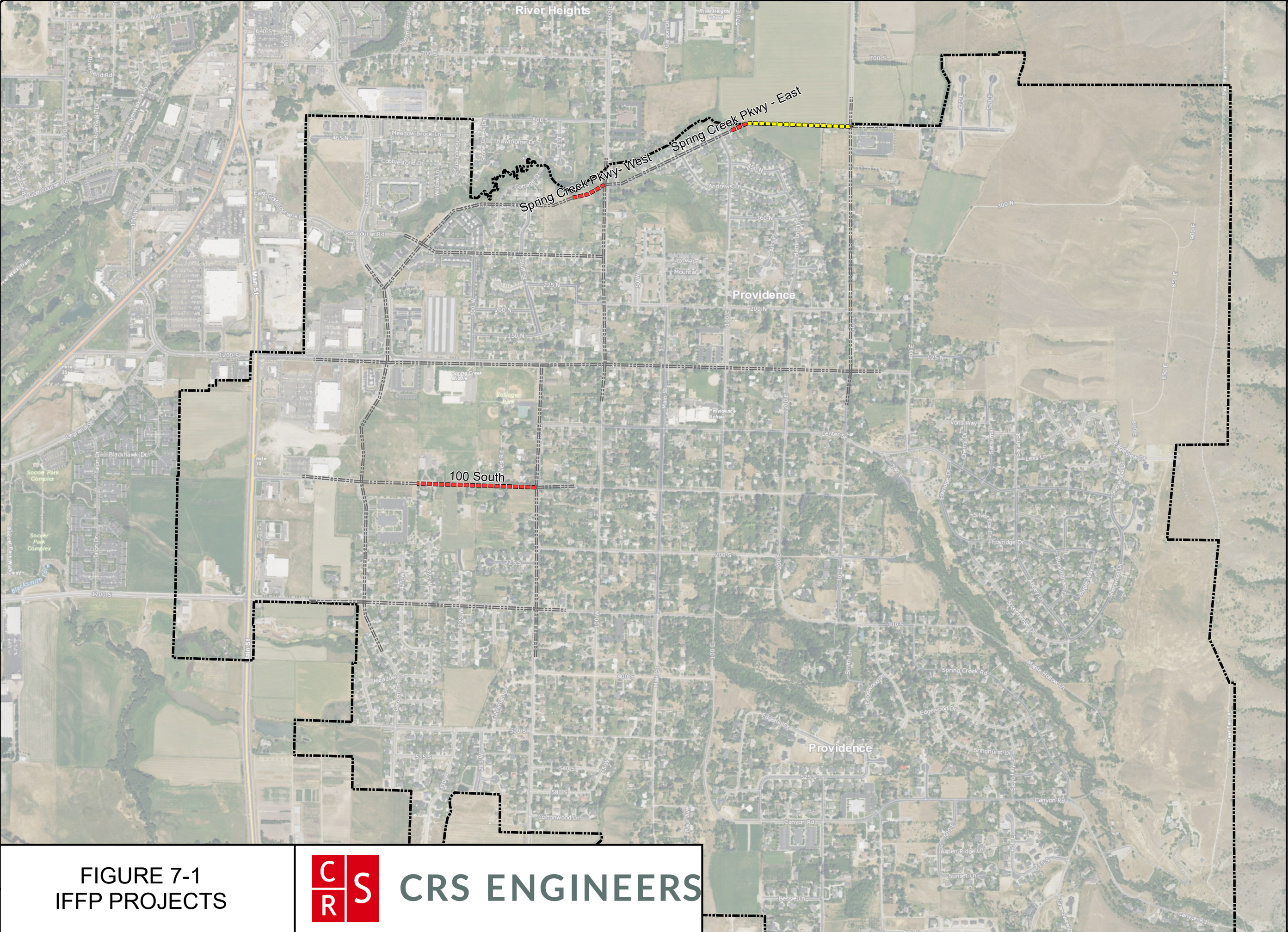
Following the methods outlined above, Providence City had CRS Engineers develop a traffic model. The traffic model identifies capacity issues through 2060. As described in the City's Traffic Model Report, a 10-year plan was developed to resolve capacity issues expected in the next 10-years. Figure 7-1 shows the location of these projects.

As stated in the Traffic Model Report, all 3 projects will provide a continuous route for traffic to be conveyed. However, there are no existing roads where traffic counts could be taken for the 3 roadway projects. For this reason, projections were made to estimate traffic volumes on these roadways if they existed today. This was done in order to compare existing versus future use of these roadways based on the same methods outlined in the Traffic model report. Table 7-1 summarizes the traffic volume along with the percent of total traffic projected by 2060.

TABLE 7-1: TRAFFIC VOLUME PROJECTIONS FOR 10-YEAR PROJECTS						
Road Name	Peak Hour Volume (2017)	Peak Hour Volume (2027)	Peak Hour Volume (2060)	Percent 2017 Volume	Percent 2027 Volume	Percent 2060 Volume
Spring Creek Parkway (West)	69	200	374	18.4%	35.1%	46.5%
Spring Creek Parkway (East)	19	169	332	5.7%	45.2%	49.1%
100 South	200	305	473	42.3%	22.2%	35.5%

BASIS OF CONSTRUCTION COST ESTIMATES

Cost Estimates were developed for each of the 4 projects based on the following 4 categories.



Legend

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Existing Roads

■■■■■

Project Level-Future

■■■■■

IFFP Project

□

City Limit



0 500 1,000 Feet

FIGURE 7-1
IFFP PROJECTS



CRS ENGINEERS

System Costs

System Costs reflect the cost of proposed infrastructure which is necessary due to development. These projects will be constructed by the City to serve multiple developments. The City will collect impact fees in order to cover these costs.

Existing Deficiencies

Existing Deficiencies are the costs to improve or repair existing infrastructure that is substandard. These improvements will be constructed or paid for by the City. Impact fees will not be used to fund these projects.

Project Costs

No project costs were included in this report.

State or Federal Funds

No State or Federal funds were identified in this process and have not been considered further. However, if the City identifies this type of funding opportunities in the future, the City should reevaluate the impact fee accordingly.

Cost estimates included in this report are based on the standard road sections as outlined in the City's standards. Using the functional classifications, costs were estimated for each project based on costs accrued on similar roadway projects completed by CRS. A summary of the projects and their costs is provided below for projects that are projected to be completed in the next 10-years. For an itemized estimate, see Appendix A.

TABLE 7-1: PROVIDENCE CITY CAPITAL IMPROVEMENT COSTS					
Project Description	Roadway Length (ft)	Percent Existing	Percent 10-Year	Percent Beyond 10 Years	Total Cost
Extend Spring Creek Pkwy from approximately 150 W to 100 W	380	\$49,297.05	\$93,592.95	\$124,314.30	\$267,204.30
Extend Spring Creek Pkwy across Spring Creek	200	\$16,656.59	\$131,499.43	\$142,896.05	\$291,052.08
Extend 100 S from approximately 400 W to 200 W	1,350	\$256,373.53	\$134,596.10	\$215,353.77	\$606,323.40
Totals		\$322,327.18	\$359,688.49	\$482,564.12	\$1,164,579.78

8.0 FUNDING PLANS AND REVENUE SOURCES

MANNER OF FINANCING (11-36A-302.2)

The City may use a combination of the following revenue sources to fund the projects identified in this IFFP.

Federal and State Grants and Donations

Impact fees are not allowed to be used to reimburse costs funded by federal grants or other funds that the City has received but is not required to repay. There are no known grant or other donations that the City is planning to use for any portion of the projects identified in this report.

Bonds

None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFFP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

Interfund Loans

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees

It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and legal fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions

Developer exactions are not the same as grants. Developer exactions may be considered in the inventory of current and future transportation infrastructure. If a developer constructs facility or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication/exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City will reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvements (i.e. projects not identified in the IFFP), developers will be responsible for the construction of the improvements without credit against the impact fee.

No developer dedications are expected for transportation infrastructure.

NECESSITY OF IMPROVEMENTS TO MAINTAIN LEVEL OF SERVICE (11-36A-302.3)

Per State statute, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

SCHOOL RELATED INFRASTRUCTURE (11-36A-302.4)

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee analysis.

NOTICING AND ADOPTION REQUIREMENTS (11-36A-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10-day noticing period for public review and inspection. Utah Code requires that the city must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the city may adopt, amend and adopt, or reject the proposed IFFP.

9.0 IMPACT FEE CERTIFICATION

This report has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data, which was provided by the City and their designees.

In accordance with Utah Code Annotated, 11-36a-306(1), CRS Engineers makes the following certification:

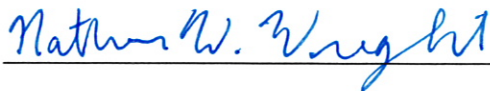
I certify that this impact fee facilities plan:

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 fee, 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; and
3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following caveats:

1. All the recommendations for implementations of the IFFP made in the IFFP or in the impact fee analysis are followed in their entirety by the City.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended this certification is no longer valid.
3. All information provided in this preparation of this IFFP is assumed to be correct, complete and accurate. This includes information provided by the City and outside sources.

Dated: February 14, 2018



Nathan W. Wright, P.E.

APPENDIX A
PROVIDENCE CITY TRANSPORTATION IFFP PROJECTS
ESTIMATE OF PROBABLE COSTS

**CRS ENGINEERS****ENGINEER'S OPINION OF PROBABLE COST****PROJECT NAME: Spring Creek Parkway - West Crossing****DATE: 02-02-2018****PROJECT DESCRIPTION: Impact Fee Facilities Plan****CLIENT: Providence City****CLIENT PROJ. NO.:****CRS PROJ. NO.: 17004.12**

ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE INSTALLED (2018 Dollars)	TOTAL
1	Mobilization	Lump Sum	LS	\$10,000.00	\$10,000.00
2	Saw Cut Asphalt & Removal	135	LF	\$4.50	\$607.50
3	Roadway Excavation	Lump Sum	LS	\$15,000.00	\$15,000.00
4	Granular Borrow	4500	CY	\$13.00	\$58,500.00
5	Road Base	255	CY	\$28.00	\$7,140.00
6	30" Concrete Culvert	150	LF	\$50.00	\$7,500.00
6	Concrete Curb & Gutter	700	LF	\$22.00	\$15,400.00
7	Concrete Sidewalk, 4" Thick	670	LF	\$22.00	\$14,740.00
8	ADA Accessible Ramps	2	Ea.	\$2,500.00	\$5,000.00
9	Adjust Utility Structure to Finish Grade	7	Ea.	\$1,600.00	\$11,200.00
10	Hot Mix Asphalt, 6" Thick	13,700	SF	\$2.20	\$30,140.00
11	Rip Rap	Lump Sum	LS	\$15,000.00	\$15,000.00
12	Clearing & Grubbing	Lump Sum	LS	\$3,000.00	\$3,000.00
13	SWPPP	Lump Sum	LS	\$5,000.00	\$5,000.00
14	Fencing	350	LF	\$12.00	\$4,200.00
15	10% Contingency	Lump Sum	LS	\$20,242.75	\$20,242.75
16	Engineering Design	Lump Sum	LS	\$26,720.43	\$26,720.43
17	Construction Management	Lump Sum	LS	\$17,813.62	\$17,813.62
	* Right-of-way Acquisition Not Included				
				TOTAL (2018 Dollars)	\$267,204.30

CRS ENGINEERS, INC.**2 North Main, Providence, UT 84332**

**CRS ENGINEERS****ENGINEER'S OPINION OF PROBABLE COST****PROJECT NAME:** Spring Creek Parkway - East Crossing**DATE:** 02-02-2018**PROJECT DESCRIPTION:** Impact Fee Facilities Plan**CLIENT:** Providence City**CLIENT PROJ. NO.:****CRS PROJ. NO.:** 17004.12

ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE INSTALLED (2018 Dollars)	TOTAL
1	Mobilization	Lump Sum	LS	\$10,000.00	\$10,000.00
2	Saw Cut Asphalt & Removal	40	LF	\$4.50	\$180.00
3	Roadway Excavation	Lump Sum	LS	\$10,000.00	\$10,000.00
4	Granular Borrow	1800	CY	\$13.00	\$23,400.00
5	Road Base	160	CY	\$28.00	\$4,480.00
6	Box Culvert	85	LF	\$900.00	\$76,500.00
6	Wing Walls	115	LF	\$120.00	\$13,800.00
7	Concrete Curb & Gutter	400	LF	\$22.00	\$8,800.00
8	Concrete Sidewalk, 4" Thick	412	LF	\$22.00	\$9,064.00
9	Adjust Utility Structure to Finish Grade	2	Ea.	\$1,600.00	\$3,200.00
10	Hot Mix Asphalt, 3" Thick	8,600	SF	\$2.20	\$18,920.00
11	Handrail	Lump Sum	LS	\$10,000.00	\$10,000.00
12	Clearing & Grubbing	Lump Sum	LS	\$5,000.00	\$5,000.00
13	Storm Drain & Catch Basins	Lump Sum	LS	\$5,000.00	\$5,000.00
14	8" Water Main	203	LF	\$50.00	\$10,150.00
15	Water Valves & Appertenances	Lump Sum	LS	\$7,000.00	\$7,000.00
16	SWPPP	Lump Sum	LS	\$5,000.00	\$5,000.00
17	10% Contingency	Lump Sum	LS	\$22,049.40	\$22,049.40
18	Engineering Design	Lump Sum	LS	\$29,105.21	\$29,105.21
19	Construction Management	Lump Sum	LS	\$19,403.47	\$19,403.47
	* Right-of-way Acquisition Not Included				
				Total (2018 Dollars)	\$291,052.08

CRS ENGINEERS, INC.**2 North Main, Providence, UT 84332**

**CRS ENGINEERS****ENGINEER'S OPINION OF PROBABLE COST****PROJECT NAME: 100 South Street****DATE: 02-02-2018****PROJECT DESCRIPTION: Impact Fee Facilities Plan****CLIENT: Providence City**

CLIENT PROJ. NO.:

CRS PROJ. NO.: 17004.12

ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE INSTALLED (2018 Dollars)	TOTAL
1	Mobilization	Lump Sum	LS	\$10,000.00	\$10,000.00
2	Saw Cut Asphalt & Removal	420	LF	\$4.50	\$1,890.00
3	Roadway Excavation	Lump Sum	LS	\$12,000.00	\$12,000.00
4	Granular Borrow	2250	CY	\$13.00	\$29,250.00
5	Road Base	907.5	CY	\$28.00	\$25,410.00
6	Concrete Curb & Gutter	2700	LF	\$22.00	\$59,400.00
7	5' Concrete Sidewalk, 4" Thick	2700	LF	\$22.00	\$59,400.00
8	Driveway Repair	12	Ea.	\$2,500.00	\$30,000.00
9	ADA Accessible Ramps	2	Ea.	\$2,500.00	\$5,000.00
10	Adjust Utility Structure to Finish Grade	6	Ea.	\$500.00	\$3,000.00
11	Hot Mix Asphalt, 6" Thick	49,950	SF	\$2.20	\$109,890.00
12	Clearing & Grubbing	Lump Sum	LS	\$6,000.00	\$6,000.00
13	Irrigation & Storm Drains	1500	LF	\$35.00	\$52,500.00
14	Irrigation & Storm Drain Boxes/Manholes	6	Ea.	\$1,200.00	\$7,200.00
15	Landscape Repair	Lump Sum	LS	\$15,000.00	\$15,000.00
16	SWPPP	Lump Sum	LS	\$6,000.00	\$6,000.00
17	Fencing	1730	LF	\$12.00	\$20,760.00
18	10% Contingency	Lump Sum	LS	\$45,270.00	\$45,270.00
19	Engineering Design	Lump Sum	LS	\$58,556.40	\$58,556.40
20	Construction Management	Lump Sum	LS	\$49,797.00	\$49,797.00
	* Right-of-way Acquisition Not Included				
				Total (2018 Dollars)	\$606,323.40

CRS ENGINEERS, INC.**2 North Main, Providence, UT 84332**