

*Final Adopted Version*



***CAPITAL FACILITIES PLAN  
FOR PUBLIC SAFETY FACILITIES***

***FOR***

**CITY OF SOUTH JORDAN**

**SALT LAKE COUNTY, UTAH**

**JULY 2004**

**Submitted by:**

**LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.**



# CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH

## PUBLIC SAFETY CAPITAL FACILITIES PLAN

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## EXECUTIVE SUMMARY

### PURPOSE OF A CAPITAL FACILITIES PLAN

The City of South Jordan (the “City”) is currently facing the need to expand its public safety facilities to serve new development and growth. Growth impacts a public safety system by 1) adding more fire/EMS and police calls, 2) expanding beyond acceptable response times, 3) reducing the areas to which units can respond per response time due to greater roadway congestion.

Growth is occurring rapidly throughout the City and will soon stress the City’s ability to adequately cover the emergency needs of new areas within the community. Lewis Young Robertson & Burningham, Inc. (“LYRB”) has been hired to complete this Public Safety Capital Facilities Plan (“CFP”) to document the future needs of the community and match those with future public safety capital facilities.

In many cases, planning for public safety facilities is managed crisis to crisis or according to the availability of funds within budgets rather than laying out a full master plan as required for services such as water, sewer, roadways, etc. that is consistently and frequently updated and reevaluated.

This CFP has been prepared to provide the City with 1) a substantive plan for future public safety capital facilities that identifies needs and deficiencies through the City-wide build-out projected for 2030 and 2) a basis for the public safety impact fees assessed for fire and police services.

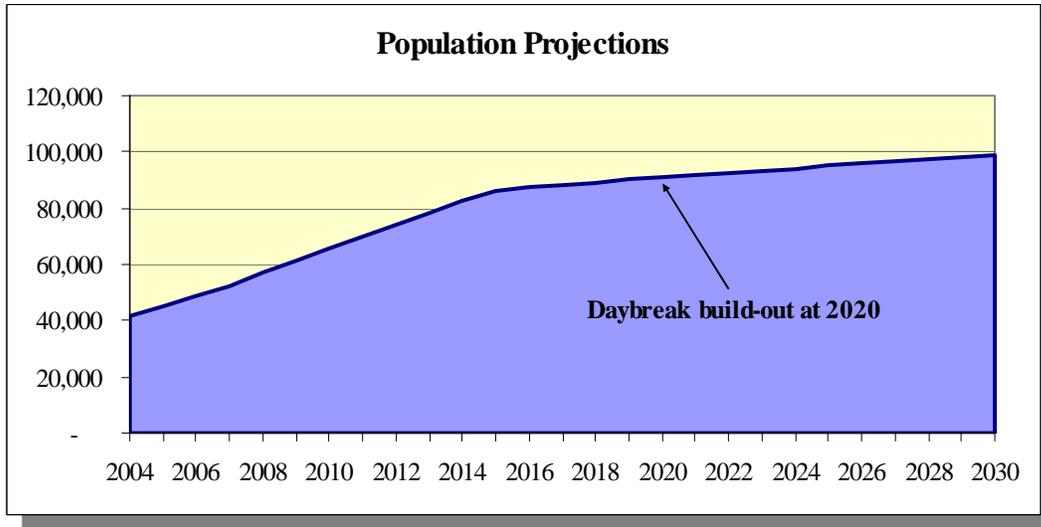
Public safety capital infrastructure, as defined by the Impact Fees Act, includes only buildings and land also known as “brick and mortar” improvements. Vehicles, apparatus, station equipment, personal gear, and other costly and necessary equipment are not addressed in this CFP, although some vehicle and apparatus needs will be discussed as a basis for sizing future fire station bays (the costs and funding of vehicles cannot be addressed in this study).

### POPULATION AND GROWTH WITHIN THE CITY

Among the numerous future developments that will locate within the City, the Daybreak Development will contribute the most to the overall City’s growth and strain on the public safety system. As the Daybreak stretches to the west, fire responses will grow longer and longer until response times exceed the maximum levels. New growth will also increase call volumes for fire and police. The 4,200-acre development is expected to attract nearly 38,000 residents by 2020. Other areas in South Jordan are growing as well. The combined impact of Daybreak and all other developments requires nearly a doubling of fire and police facilities to adequately cover growth.



**FIGURE 1: PROJECTED POPULATION GROWTH WITHIN THE SOUTH JORDAN (INCLUDING DAYBREAK)**

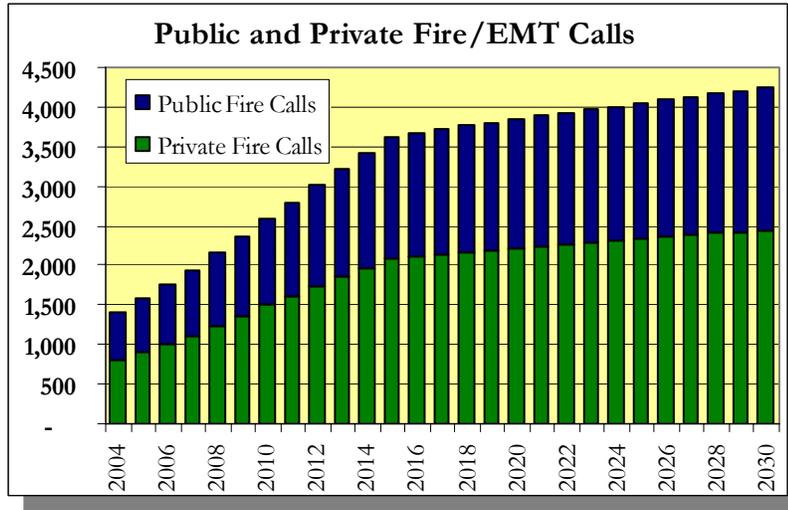


**FUTURE AND EXISTING CALLS**

The growth in the City will result in increased calls for fire/EMS and police. In this analysis, call projections are tied to developed land acreages and historic fire/EMS and police responses within the City’s different land uses. The total historic and projected calls are separated into public and private land uses as impact fees may only be assessed to private development, which includes schools, commercial properties, industrial development, hotels, residential areas, etc. Since private development is the primary factor driving emergency calls to public land uses (which include roadways, city properties, parks, etc.), only private land uses will be considered from an impact fee perspective.

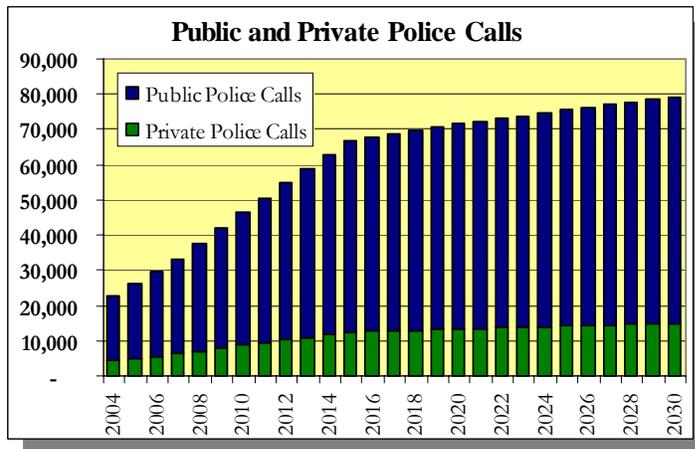
**FIGURE 2: PROJECTED PUBLIC & PRIVATE FIRE/EMS CALLS**

Year	Public Calls	Private Calls	Total Calls	Year	Public Calls	Private Calls	Total Calls
2004	685	966	1,651	2018	1,724	2,431	4,155
2005	762	1,075	1,837	2019	1,744	2,460	4,204
2006	839	1,184	2,023	2020	1,764	2,488	4,252
2007	917	1,293	2,209	2021	1,781	2,512	4,294
2008	1,014	1,431	2,445	2022	1,799	2,537	4,335
2009	1,112	1,568	2,681	2023	1,816	2,561	4,377
2010	1,210	1,706	2,916	2024	1,833	2,585	4,418
2011	1,301	1,834	3,135	2025	1,850	2,609	4,460
2012	1,391	1,962	3,353	2026	1,868	2,634	4,501
2013	1,482	2,090	3,572	2027	1,885	2,658	4,543
2014	1,573	2,218	3,790	2028	1,902	2,682	4,584
2015	1,663	2,345	4,009	2029	1,919	2,706	4,626
2016	1,683	2,374	4,057	2030	1,936	2,731	4,667
2017	1,704	2,402	4,106				



**FIGURE 3: PROJECTED PUBLIC & PRIVATE POLICE CALLS**

Year	Public Calls	Private Calls	Total Calls	Year	Public Calls	Private Calls	Total Calls
2004	18,433	4,268	22,701	2018	56,591	13,104	69,696
2005	21,270	4,925	26,195	2019	57,334	13,276	70,610
2006	24,107	5,582	29,689	2020	58,077	13,448	71,525
2007	26,943	6,239	33,183	2021	58,709	13,595	72,303
2008	30,533	7,070	37,604	2022	59,341	13,741	73,082
2009	34,123	7,902	42,025	2023	59,973	13,887	73,860
2010	37,713	8,733	46,446	2024	60,605	14,034	74,638
2011	41,043	9,504	50,547	2025	61,237	14,180	75,417
2012	44,373	10,275	54,648	2026	61,869	14,326	76,195
2013	47,703	11,046	58,750	2027	62,501	14,473	76,974
2014	51,033	11,817	62,851	2028	63,133	14,619	77,752
2015	54,363	12,588	66,952	2029	63,765	14,765	78,530
2016	55,106	12,760	67,866	2030	64,397	14,912	79,309
2017	55,849	12,932	68,781				





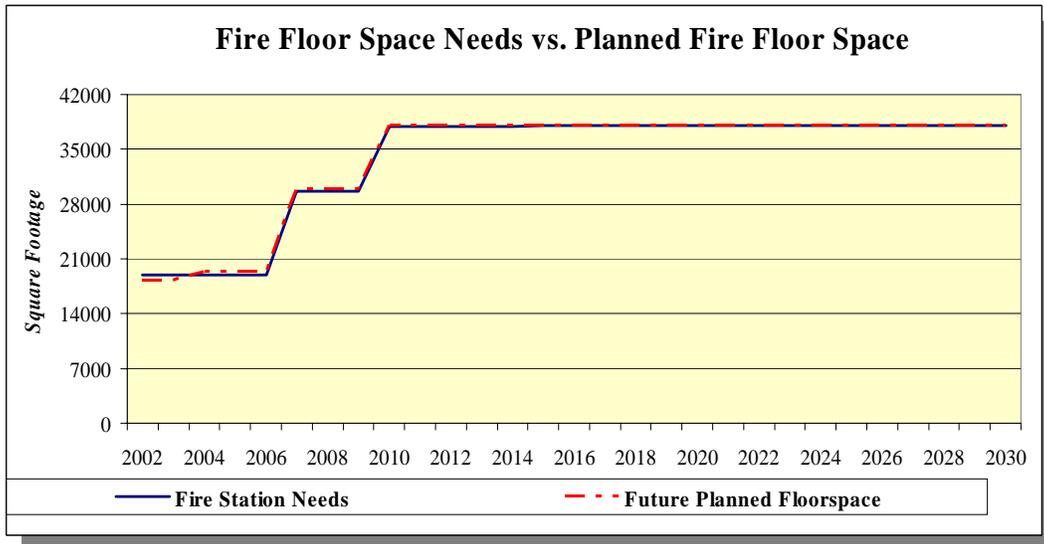
**FUTURE FIRE/EMS FACILITY NEEDS AND FLOOR SPACE SIZING**

Adequate fire protection is directly based upon response times originating from the fixed locations from which response crews are dispatched. As development moves further away from fire stations, response times, or the ability to ensure the public’s safety, is compromised.

Once new development locates beyond the limitations of a particular fire station or roadway levels of service have degraded to near failure, the City must consider the construction of a new station in an area that may adequately serve the new development. Based upon the fire protection needs that will arise within the City through 2030, the following graph shows that two new fire stations will be needed to adequately serve future growth.

**FIGURE 4: NECESSARY FIRE/EMS FLOOR SPACE VS. ACTUAL FIRE/EMS FLOOR SPACE**

Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)	Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)
2004	18,946	19,332	2018	38,065	38,071
2005	18,946	19,332	2019	38,065	38,071
2006	18,946	19,332	2020	38,065	38,071
2007	29,670	29,867	2021	38,065	38,071
2008	29,670	29,867	2022	38,065	38,071
2009	29,670	29,867	2023	38,065	38,071
2010	37,893	38,071	2024	38,065	38,071
2011	37,893	38,071	2025	38,065	38,071
2012	37,893	38,071	2026	38,065	38,071
2013	37,893	38,071	2027	38,065	38,071
2014	37,893	38,071	2028	38,065	38,071
2015	38,065	38,071	2029	38,065	38,071
2016	38,065	38,071	2030	38,065	38,071
2017	38,065	38,071			



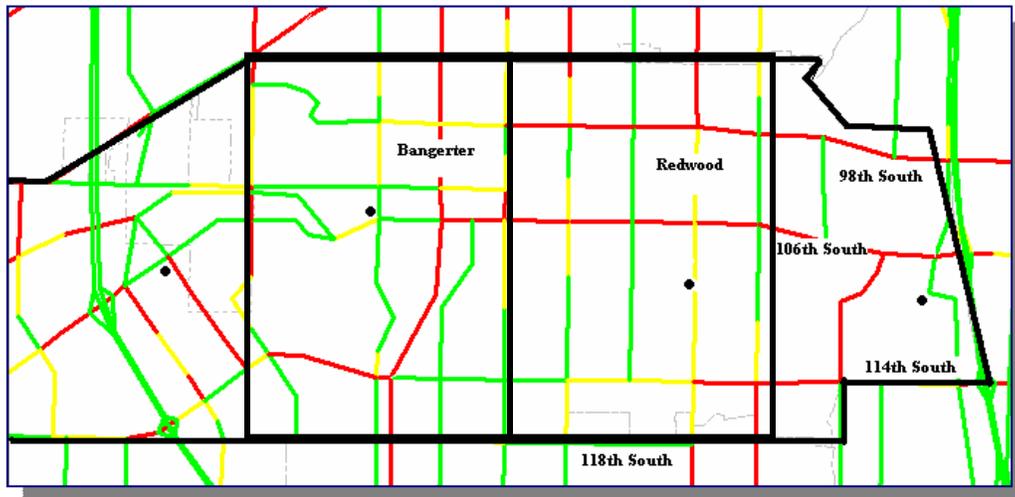


## ROADWAY CONCERNS AND DEFICIENCIES

With the exception of the Riverbottoms area and the Sunstone Development, the majority of the developed property within the City is sufficiently covered by fire protection given the current roadway conditions and placement of the current fire stations. The areas that are inadequately served by the City's existing fire stations create a deficiency due to the inability of the roadways to allow for proper response times. Figure 5 shows the lack of arterial roadways in the Riverbottoms area as well as congestion to be expected at buildout in 2030.

In addition to a station's accessibility to its service areas, another key factor that affects fire response times is the increase in roadway congestion that will take place as development continues within the City. The City's future roadway modeling, prepared by InterPlan Co., illustrates the affects of development on roadway congestion.

**FIGURE 5: RIVERBOTTOMS AND SURROUNDING AREA**

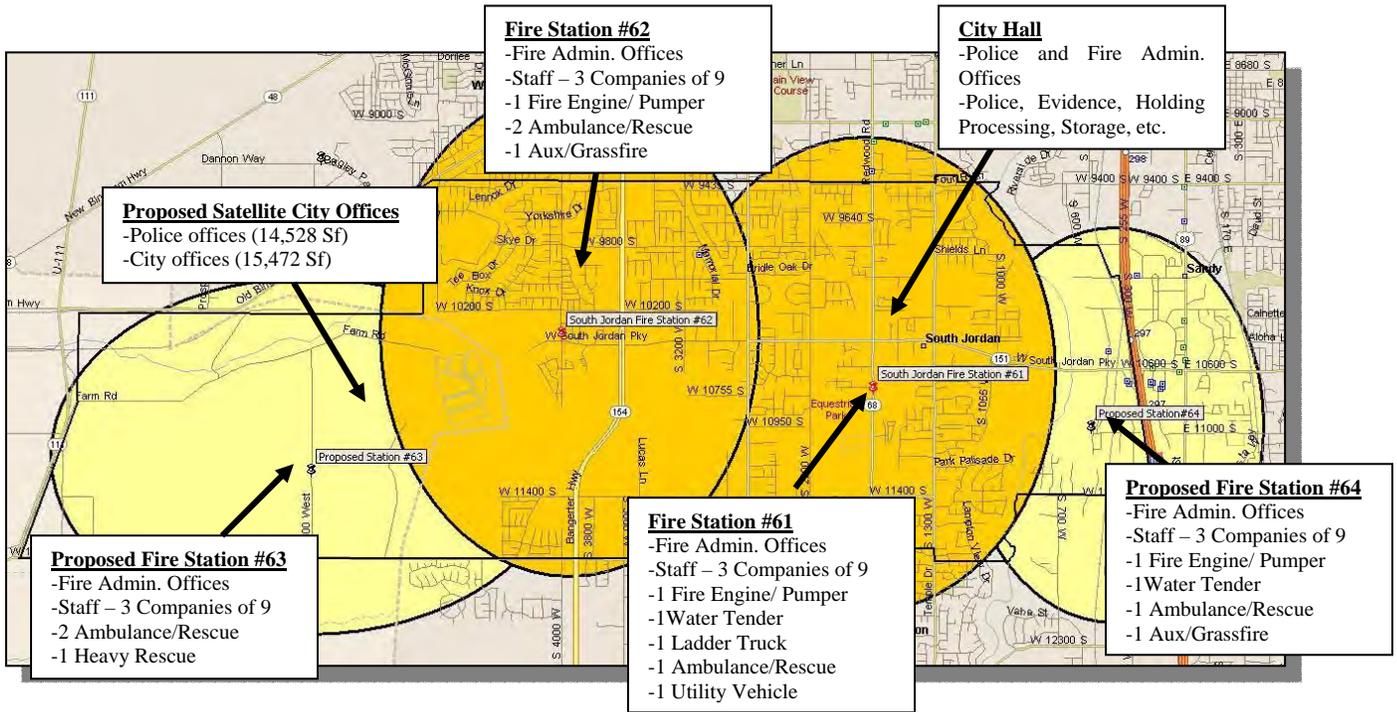


Level of Service refers to approximate highway levels of service according to techniques of the 2000 Highway Capacity Manual. Red refers to LOS F which implies failure and gridlock, yellow refers to LOS D or E which is highly congested but traffic flows, and green refers to acceptable LOS C, B, or A. All levels of service are approximate based on daily volumes.

It is clear that major roadways such as 106<sup>th</sup> South, parts of Redwood Road and 114<sup>th</sup> South and Bangerter Highway will experience very poor levels of service at buildout. This translates to high congestion which will make response times longer, reduce levels of service, and ultimately require stations to be more closely grouped. The impact of growth on the Riverbottoms area is partially through new homes but largely due to congestion along key routes that will limit response times to the area from Station 61.



**FIGURE 6: SUMMARY OF EXISTING AND PROPOSED PUBLIC SAFETY FACILITIES AND FIRE RESPONSE TIMES (4:59 MIN. RESPONSE TIMES)**



The need for future facilities will require the City to construct two additional fire stations. Figure 7 below summarizes the future costs of these stations that the City will need to fund through build-out.

**FIGURE 7: PROJECTED FUTURE EXPENSES**

Facility	Construction Year Costs (CYC)	Bond Financing Costs	CYC + Financing
Station 63	\$ 2,352,217	-	\$ 2,352,217
Station 64	2,279,380	-	2,279,380
<b>TOTALS:</b>	<b>\$ 4,631,597</b>	<b>\$ -</b>	<b>\$ 4,631,597</b>

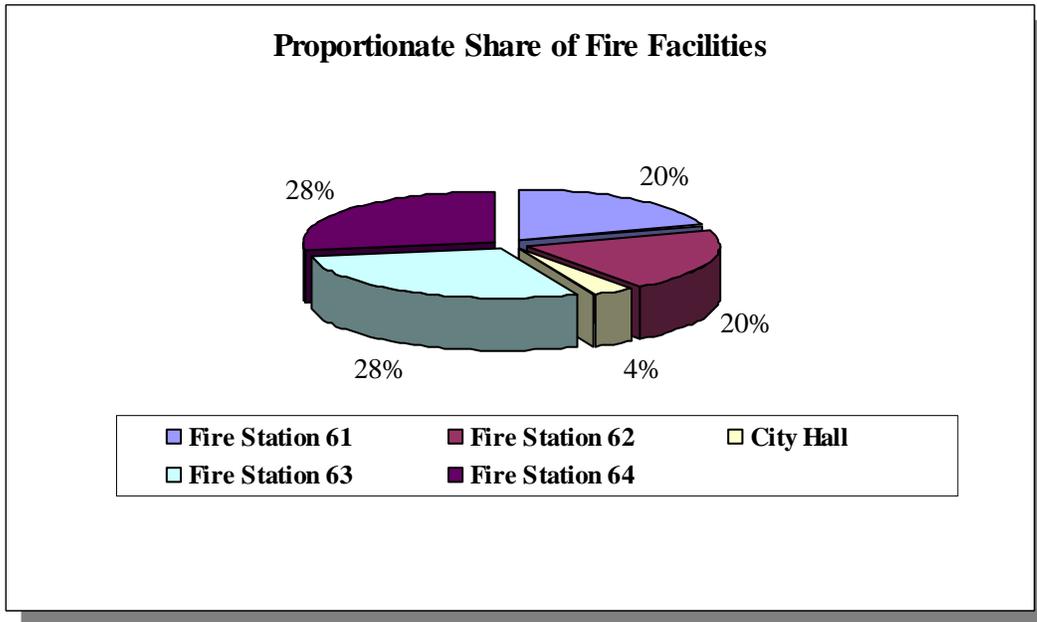
In addition to identifying future projects and costs, the CFP also serves as the basis for calculating impact fees by identifying the proportion of the past and future costs that should be allocated to growth. Figure 8 demonstrates the historic methods of funding the existing fire stations. The Impact Fees Act requires that future funding be proportionate to the methods of funding the historic infrastructure. Any equity that the existing owners have contributed to the system is factored into the amount that future users should contribute to the expansion of the existing system.



**FIGURE 8: PROPORTIONATE SHARE OF FIRE/EMT FACILITIES**

Facility	Adjusted Costs and Financing <sup>1</sup>	Proportion to Existing Users	Total Equity Buy-In
Fire Station 61	\$ 1,650,000	35.38%	\$ 583,702
Fire Station 62	1,650,000	35.38%	583,702
City Hall	296,335	35.38%	104,831
Fire Station 63	2,352,217	35.38%	832,118
Fire Station 64	2,279,380	35.38%	806,351
<b>TOTALS:</b>	<b>\$ 8,227,932</b>		<b>\$ 2,910,703</b>

1- Adjusted costs include the proportionate amount of the outstanding and future financing costs. Interest costs for the outstanding 2001 Bonds, issued to finance the current City Hall, are the only bond financing costs included. Future fire stations are to be financed through inter-fund loans. The interest costs of these loans are considered in the impact fee cashflow analysis.



**FUTURE POLICE FACILITIES NEEDS**

Unlike fire protection, police service and response times are not dependent upon distances of respondents to fixed locations. Officers generally patrol throughout the City, and the units closest to a call will typically respond first. Therefore, a police station’s location is directly determined by growth patterns rather than target response times, and most cities will try to position police stations in central locations.

While the 2003 relocation from the old City Hall to the current City Hall cured deficiencies for current users, the City’s police department will eventually operate from a facility that is not adequately sized to accommodate the growth that is expected to occur



through build-out. The following table and graph show that the City must contemplate the construction of an additional station to properly accommodate the police department's growing staff.

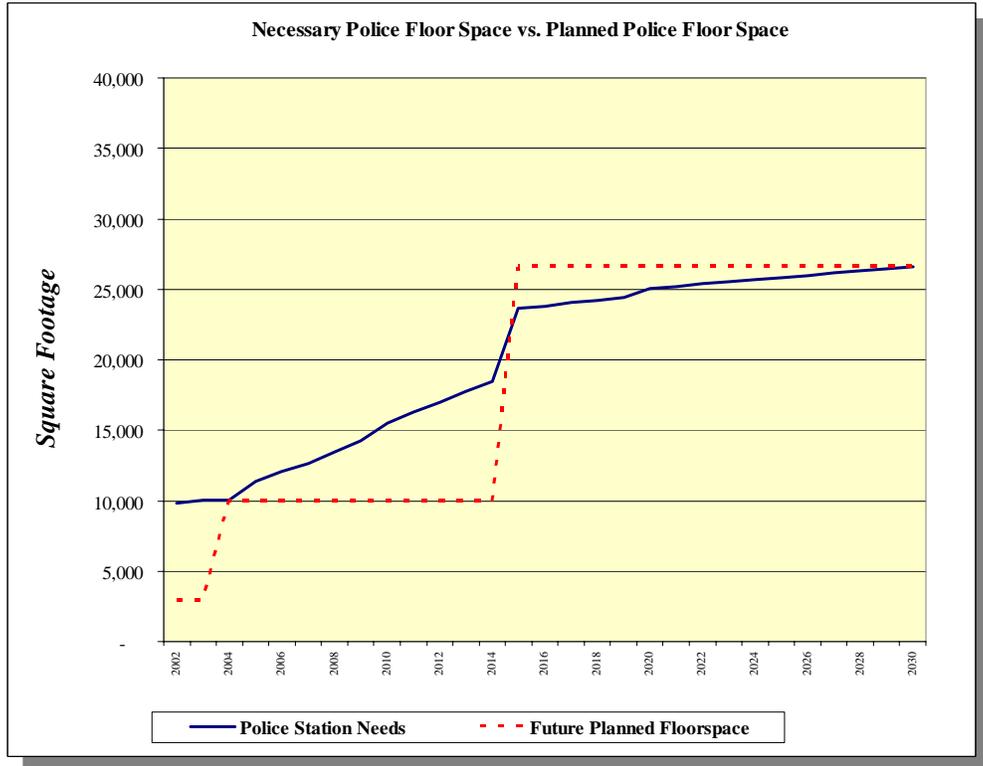
Staffing needs build upon the sworn officers per thousand persons needed within the community given the stage of development of the community itself and those surrounding. Typically as a community and/or its neighbors become more urbanized, crime rates per 1,000 residents increase. Although a standard of .88 officers per thousand residents may support the community well at this time, it will be severely deficient at build-out conditions when South Jordan and its neighbors have become more urbanized. The level of service used in the calculation of required officers cannot solely be based upon today's officers per thousand residents, but must increase with urbanization. A target of 1.35 officers has been established through standards of other Salt Lake Communities whose current conditions resemble those to be expected of South Jordan in 2030.

**FIGURE 9: SWORN OFFICERS PER 1,000 PERSONS**

Year	Population	Sworn Officers	Officers per 1,000	Year	Population	Sworn Officers	Officers per 1,000
2004	41,954	37	0.88	2018	89,215	118	1.32
2005	45,468	49	1.08	2019	90,135	120	1.33
2006	48,981	55	1.12	2020	91,055	121	1.33
2007	52,495	60	1.14	2021	91,838	122	1.33
2008	56,941	67	1.18	2022	92,621	124	1.34
2009	61,388	74	1.21	2023	93,403	125	1.34
2010	65,834	81	1.23	2024	94,186	126	1.34
2011	69,958	88	1.26	2025	94,969	127	1.34
2012	74,083	94	1.27	2026	95,752	128	1.34
2013	78,207	101	1.29	2027	96,535	130	1.35
2014	82,332	107	1.30	2028	97,317	131	1.35
2015	86,456	114	1.32	2029	98,100	132	1.35
2016	87,376	115	1.32	2030	98,883	133	1.35
2017	88,296	117	1.33				

**FIGURE 10: POLICE FLOOR SPACE NEEDS**

Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)	Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)
2004	10,046	9,974	2018	24,188	26,604
2005	11,394	9,974	2019	24,434	26,604
2006	12,081	9,974	2020	25,025	26,604
2007	12,657	9,974	2021	25,160	26,604
2008	13,454	9,974	2022	25,406	26,604
2009	14,251	9,974	2023	25,541	26,604
2010	15,504	9,974	2024	25,676	26,604
2011	16,301	9,974	2025	25,811	26,604
2012	16,988	9,974	2026	25,946	26,604
2013	17,785	9,974	2027	26,192	26,604
2014	18,472	9,974	2028	26,327	26,604
2015	23,673	26,604	2029	26,462	26,604
2016	23,808	26,604	2030	26,598	26,604
2017	24,053	26,604			



The anticipated growth within the City will create the need for a future police station. The City envisions the construction of a satellite station, to occur in 2015, that would be used along with the existing City Hall to serve the City through build-out. Figure 11 summarizes the future cost of the Satellite City Office.

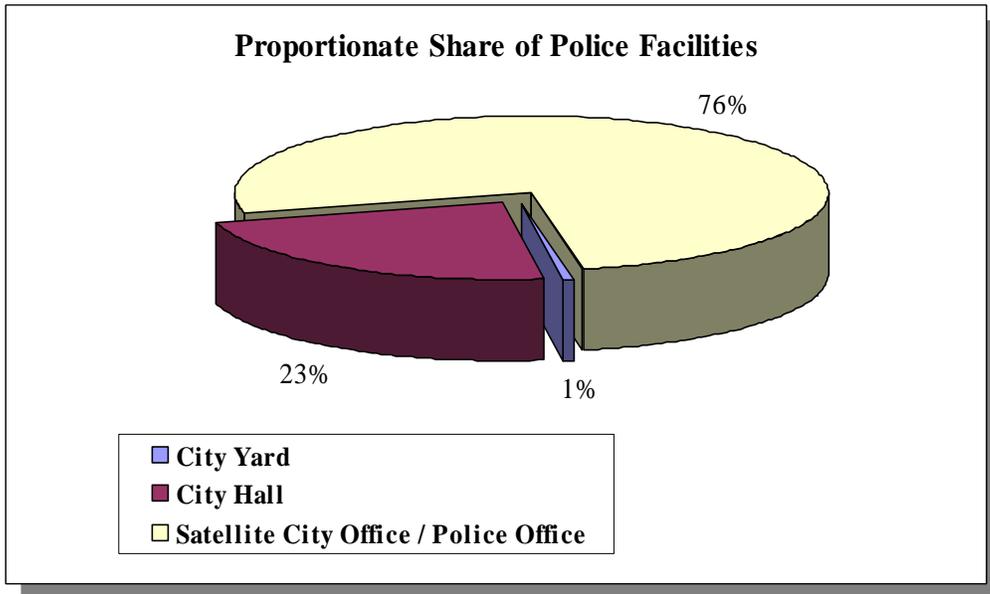
**FIGURE 11: PROJECTED FUTURE POLICE EXPENSES**

Facility	Construction Year Costs (CYC)	Bond Financing Costs	DRC + Financing
Satellite City Office / Police Office	\$ 4,612,026	\$ 1,934,705	\$ 6,546,731
<b>TOTALS:</b>	<b>\$ 4,612,026</b>	<b>\$ 1,934,705</b>	<b>\$ 6,546,731</b>



**FIGURE 12: PROPORTIONATE SHARE OF POLICE FACILITIES**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
City Yard	\$ 54,823	71.38%	\$ 39,131
City Hall	1,961,259	71.38%	1,399,876
Satellite City Office / Police Office	6,546,731	71.38%	4,672,821
<b>TOTALS:</b>	<b>\$ 8,562,813</b>		<b>\$ 6,111,827</b>





## CHAPTER 1 OVERVIEW OF THE CAPITAL FACILITIES PLAN

### **PURPOSE OF A CAPITAL FACILITIES PLAN**

The purpose of a Capital Facilities Plan is to identify the demands which will be placed upon a city's existing public facilities from future development and evaluate how these demands will be met by the city. The CFP is intended to outline the improvements which may be financed through impact fees.

### **REQUIRED ELEMENTS FOR A CAPITAL FACILITIES PLAN**

According to Utah State Code Title 11, Chapter 36, more commonly referred to as the Impact Fees Act, cities serving populations of 5,000 or greater must prepare a Capital Facilities Plan. This document enables the City of South Jordan, with a population greater than 5,000, to meet this requirement.

Local governments must pay strict attention to the required elements of the Capital Facilities Plan which are enumerated in the Impact Fees Act. The following elements must be discussed in the CFP before a city can legally commence public notice and adopt the CFP.

### **INVENTORY VALUATION**

The Capital Facilities Plan must inventory all public safety facilities. To the extent possible, the inventory valuation should consist of the following information:

- ☐ Each capital facility;
- ☐ Estimated date of completion of each facility;
- ☐ Estimated useful life of each facility;
- ☐ Remaining useful life of each facility; and
- ☐ Replacement cost of each facility.

### **DEMAND ANALYSIS**

The Capital Facilities Plan must consider the level of service which is provided to a community's existing residents and ensure that future facilities meet these standards. The unit of measurement varies depending on which public facility is discussed. For example, the demand on public safety improvements may be measured in terms of calls received within a city. The CFP is also required to include a clear nexus between estimated future demand and the proposed capital facilities required to be constructed or acquired to meet the future demand.



## **FINANCING OPTIONS**

The Capital Facilities Plan must also include a consideration of all revenue sources, including impact fees, which may be used to finance system improvements.<sup>1</sup> In conjunction with this revenue analysis, there must be a determination that impact fees are necessary to achieve an equitable allocation of the costs of the new facilities between the new and existing users.<sup>2</sup>

## **NOTICING AND ADOPTION REQUIREMENTS – 11-36-202**

If a city prepares an independent CFP rather than include a capital facilities element in the general plan, the actual CFP must be adopted by city ordinance. Before the CFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 14 days before the actual hearing. A copy of the proposed Capital Facilities Plan must be made available to the public during the 14-day noticing period for public review and inspection. Copies must be posted in designated public places which include each public library within the jurisdiction of the city and city offices.

Following the 14-day noticing period, a public hearing will be held, after which point the City Council may adopt, amend and adopt, or reject the proposed Capital Facilities Plan. Following the adoption, Utah Code Section 10-3-711 and 712 requires that a summary of the ordinance be published in order for the ordinance to become effective.

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<sup>1</sup> 11-36-201(3)

<sup>2</sup> 11-36-201(4)



## CHAPTER 2

# OVERVIEW OF FIRE AND POLICE FACILITIES

### **SERVICE AREA DYNAMICS AND PROPORTIONATE SHARE ANALYSIS**

Unlike water, sewer, or storm drain system with fixed improvements that can only serve fixed areas or properties, all public safety facilities are expected to work in unison to ensure the entire City is adequately served. Because each station may house different classes of vehicles for differing purposes, more than one station may be required to respond jointly to calls. The dispersed fire stations within the City should be viewed as a combined and integrated system rather than trying to tie an individual station to a certain region of the City.

A CFP must set forth the proportionate share that becomes the basis for the impact fee analysis. The intent of the proportionate share analysis is to determine the proportion of existing or future facilities that should be allocated to growth. The proportionate share analysis must also ensure impact fees are not used to fund facilities that exceed the current and reasonable level of service nor cure any existing deficiencies. The proportionate share analysis included herein accurately considers these requirements and demonstrates that based upon the current levels of service of fire and police floor space and response time needs, growth will pay the share of costs that directly relate to the impacts to be created by future development.

The methodology used to measure the proportionate share determines the optimal sizing and placement of fire and police facilities needed to cover the City's existing development, the projected future calls resulting from growth, the associated land, building, and related financing expenses. The total value of the existing and future facilities, associated land, and related financing costs are then separated between existing and future users based upon the percentages of fire and police calls made at build-out by both current and future users.

The proportionate share analysis is based upon this combined system approach which shows that the four fire stations, the fire and police offices in the current City Hall and the proposed Satellite City Office will be adequately sized and placed to optimally cover the entire City at build-out thus removing the needs for outside automatic aid agreements. It is demonstrated that the existing and proposed fire stations are optimally sized to maintain adequate response times given the projected volumes of fire/EMS and police calls and the current and proposed roadways and levels of roadway congestion that may decrease the ability to respond.



## PURPOSE OF DETERMINING A LEVEL OF SERVICE

According to the Impact Fees Act, impact fees can only be assessed in an amount which recovers the costs of infrastructure that perpetuates the current level of service. Therefore, a level of service increase cannot be funded through impact fees. Any increase in the current level of service must be funded through general fund or other City revenue sources first. This chapter will establish the primary level of service requirements for fire and police services that will be perpetuated through impact fees.

Level of service is expressed in a number of different manners and differs greatly across fire and police services. Fire and EMS level of service is expressed primarily in terms of response times, which directly determine the need for new fire stations, the type of equipment needed, staff sizing, and facility sizing.

From an impact fee perspective, police level of service does not focus on response times since responding patrols are not dispatched from centralized locations. Therefore, police response times do not affect facility placement. Police level of service is primarily based upon the number of sworn officers per 1,000 residents and facility sizing based upon the number of officers and clerical personnel.

Existing deficiencies are calculated by comparing facility floor space to the number of calls received. For example, if no deficiencies exist, the percentages of total facility floor space at build-out that apply to current and future facilities should be equivalent to the percentages of total calls at build-out that apply to current and future users. However, deficiencies do exist, so existing users are expected to pay for the percentage of the construction costs of new public safety infrastructure that will serve them.

## CURRENT FIRE LEVEL OF SERVICE

The primary level of service for fire is based upon response times. As the number of fire/EMS calls increases, the City will seek to maintain its current response times. Based upon the historic number of fire/EMS calls responded to by the City, the following table shows the number of calls that the City expects to receive annually through 2030.

**FIGURE 2.1: FIRE/EMS CALL PROJECTIONS**

Year	Public Calls	Private Calls	Total Calls	Year	Public Calls	Private Calls	Total Calls
2004	685	966	1,651	2018	1,724	2,431	4,155
2005	762	1,075	1,837	2019	1,744	2,460	4,204
2006	839	1,184	2,023	2020	1,764	2,488	4,252
2007	917	1,293	2,209	2021	1,781	2,512	4,294
2008	1,014	1,431	2,445	2022	1,799	2,537	4,335
2009	1,112	1,568	2,681	2023	1,816	2,561	4,377
2010	1,210	1,706	2,916	2024	1,833	2,585	4,418
2011	1,301	1,834	3,135	2025	1,850	2,609	4,460
2012	1,391	1,962	3,353	2026	1,868	2,634	4,501
2013	1,482	2,090	3,572	2027	1,885	2,658	4,543
2014	1,573	2,218	3,790	2028	1,902	2,682	4,584
2015	1,663	2,345	4,009	2029	1,919	2,706	4,626
2016	1,683	2,374	4,057	2030	1,936	2,731	4,667
2017	1,704	2,402	4,106				



The City has categorized its fire/EMS calls based upon a system which ranks the level of severity of each call. As shown in the table below, an “A” call is the least severe type of call, while an “E” call is the most severe. It is assumed that fire engines will be the first responders, and paramedics and ambulances will always respond jointly. The following table summarizes the City’s target response times for each type of call as based upon City policy. The City strives to respond to 90% of its calls within these target response times.

**FIGURE 2.2: MAXIMUM RESPONSE TIMES**

<b>Target Response Times<sup>1</sup></b>		
<b>Type of Call</b>	<b>1st Responders (Fire Engine)</b>	<b>Paramedics/ Ambulance</b>
A Calls	< 7:59 minutes	< 7:59 minutes
B Calls	< 7:59 minutes	< 7:59 minutes
C Calls	< 4:59 minutes	< 7:59 minutes
D Calls	< 4:59 minutes	< 7:59 minutes
E Calls	< 4:59 minutes	< 7:59 minutes

1- Established in City Policy Chapter 8.28.040

Fire stations are tactically positioned to ensure that all existing development within the City is currently covered by these standards (the Sunstone Development (“Sunstone”) is the only development within the City that is not currently serviced by these standards, but Sunstone’s residents are adequately protected by the City’s automatic aid agreement with Herriman City). This CFP will illustrate how the strategic placement of two future stations will provide all of the City’s future development with the same fire/EMS response time coverage that the City’s existing residents enjoy.

**FIRE FLOOR SPACE SIZING**

Future fire floor spaces are sized relative to the established square footage standards, shown below in Figure 2.3, as determined by the City’s existing stations and the specific needs of the fire department on a station by station basis. Furthermore, each station is sized based upon the company sizes, vehicle and apparatus needs, and number of administrative personnel that each station requires. The table shown below shows the City’s current square footage standards per functional area.

**FIGURE 2.3: SQUARE FOOTAGE STANDARDS PER FIRE FUNCTIONAL AREA**

<b>Approximate Square Footage<sup>1</sup></b>	
<b>Per Station</b>	
Living Quarters	1,850
Training/Conference	650
Decontamination/Laundry	200
Special Operations/Arson	150
Storage	600
Exercise/Fitness	600
Hallway/Servant Areas	15% of Total Sf
<b>Per Administrative &amp; Clerical</b>	
Administrative/Offices	150
<b>Per Apparatus Bay</b>	
Apparatus Bay	1,400

1- Based upon square footage standards of current stations



## CURRENT POLICE LEVEL OF SERVICE

The primary level of service for police is based upon the number of sworn officers per 1,000 persons. The following table shows the gradual increase in the City’s current level of service as the City becomes more urban.

**FIGURE 2.4: PROJECTED NUMBER OF SWORN OFFICERS PER 1,000 PERSONS**

Year	Population	Sworn Officers	Officers per 1,000	Year	Population	Sworn Officers	Officers per 1,000
2004	41,954	37	0.88	2018	89,215	118	1.32
2005	45,468	49	1.08	2019	90,135	120	1.33
2006	48,981	55	1.12	2020	91,055	121	1.33
2007	52,495	60	1.14	2021	91,838	122	1.33
2008	56,941	67	1.18	2022	92,621	124	1.34
2009	61,388	74	1.21	2023	93,403	125	1.34
2010	65,834	81	1.23	2024	94,186	126	1.34
2011	69,958	88	1.26	2025	94,969	127	1.34
2012	74,083	94	1.27	2026	95,752	128	1.34
2013	78,207	101	1.29	2027	96,535	130	1.35
2014	82,332	107	1.30	2028	97,317	131	1.35
2015	86,456	114	1.32	2029	98,100	132	1.35
2016	87,376	115	1.32	2030	98,883	133	1.35
2017	88,296	117	1.33				

Based upon the expected growth in the number of sworn officers, the following organizational chart shows the police department’s staffing needs at build-out.

### SWORN OFFICER REQUIREMENTS

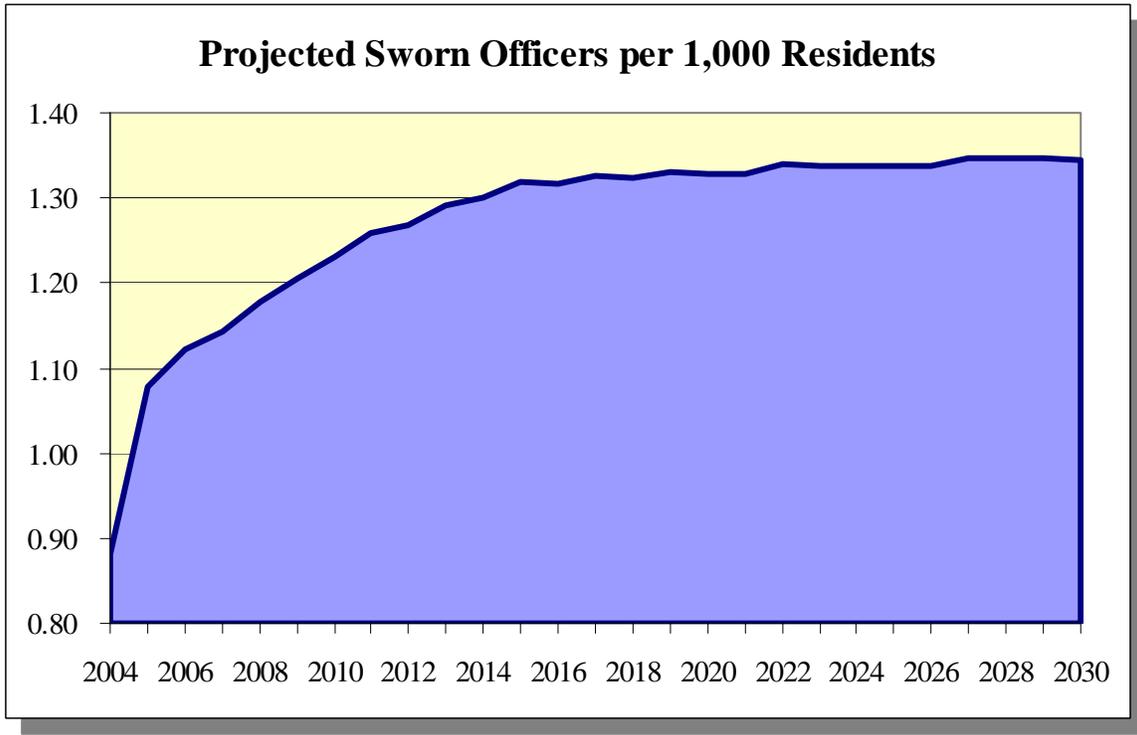
The police level of service is measured in terms of the number of officers per 1,000 persons. However, it should be noted that the level of service for police will not remain constant. As the City becomes more urban, the number of officers per 1,000 persons will increase due to a rise in the number of felonies committed per capita.

Therefore, rather than determining an arbitrary number of officers needed per 1,000 persons, the Federal Bureau of Investigation’s Crime Index can be used to determine an appropriate number of officers needed based upon the number of criminal offenses committed per capita. As the City becomes more urban, more offenses are committed per capita thus obligating the City to staff additional officers. As a result, increases in crime and population directly affect the number of officers needed, so the level of service, or officers per 1,000 persons, will increase relative to the crime index. Enclosure D.4 shows the police department’s staffing projections based upon the FBI’s crime index.

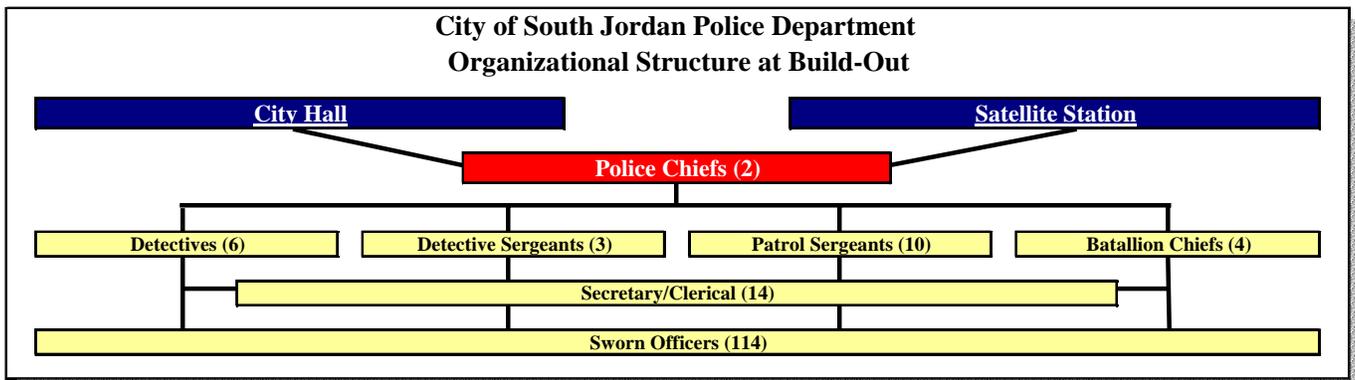
Figure 2.5 shows the gradual increase in the City’s current level of service of approximately .90 officers per 1,000 residents to 1.35 officers per 1,000 residents in 2030.



**FIGURE 2.5: SWORN OFFICERS PER 1,000 RESIDENTS**



**FIGURE 2.6: ORGANIZATIONAL STRUCTURE OF POLICE DEPARTMENT AT BUILD-OUT**



**POLICE FLOOR SPACE SIZING**

Like fire floor space, police floor space is sized relative to the specific needs of the City’s police department. However, unlike fire stations, the amount of floor space required for many of a police station’s functional areas will grow as more sworn officers are added to the department. The following functional floor space square footages are based upon the specific needs of police facilities and upon the current floor space per category found in the current police station.



**FIGURE 2.7: SQUARE FOOTAGE STANDARDS PER POLICE FUNCTIONAL AREA**

<b>Approximate Square Footage<sup>1</sup></b>	
<b>Per Sworn Officer</b>	
Investigations	16
Large Evidence Area	15
Evidence Processing	2
Prisoner Handling	15
Garage/Sallyport Area	26
Training Room	17
Records	15
Armory	4
<b>Per Administrative/Clerical</b>	
Police Chief Office	144
Detective Office	64
Detective Sergeant Office	144
Patrol Sergeant Office	64
Batallion Chief Office	120
Secretary/Clerical	64
<b>Per Station</b>	
Administration Open Area	2,970
Hallways/Storage Closets	1,370
SRO Office	64

1- Based upon square footage standards of current station



## CHAPTER 3 EXISTING PUBLIC SAFETY FACILITIES

### EXISTING FIRE STATIONS

Fire stations 61 and 62, in conjunction with the City's mutual and automatic aid agreements, currently serve the City as presently developed. In addition, the City's fire department shares some clerical, training, fitness, and other common spaces with the police department located at the City Hall.

### FLOOR SPACES IN FIRE STATIONS

The current fire stations are sized according to the equipment and administrative needs of the City. Station 61, located at 10758 S. Redwood Road, has approximately 8,300 square feet of floor space which includes the station's two and a half apparatus bays. The majority of the department's administrative offices are located in Station 61. More administrative and clerical offices are located in the City Hall, where the fire department occupies approximately 1,500 square feet. Station 62, located at 10600 South 4000 West, contains approximately 9,500 square feet of floor space which includes the station's three apparatus bays.

**FIGURE 3.1: CURRENT FIRE/EMS FLOOR SPACE**

	City Hall Station <sup>1</sup>	Station 61	Station 62	Total Current Floorspace
Living Quarters	-	1,597	2,055	<b>3,652</b>
Training/Conference	391	660	660	<b>1,711</b>
Decontamination/Laundry	-	174	302	<b>476</b>
Special Operations/Arson	-	120	20	<b>140</b>
Storage	48	710	332	<b>1,090</b>
Exercise/Fitness	768	-	480	<b>1,248</b>
Hallway/Servant Areas	-	632	1,343	<b>1,975</b>
Administrative/Offices	300	520	538	<b>1,358</b>
Apparatus Bay	-	3,873	3,809	<b>7,682</b>
Total Bays:	-	2.5	3.0	<b>5.5</b>
<b>TOTALS:</b>	<b>1,507</b>	<b>8,286</b>	<b>9,539</b>	<b>19,332</b>

1- The training/conference, storage, exercise/fitness, and administrative/office areas are shared with the City's police department; the square footages shown above have already been reduced to include the portion of these areas that is reserved for the City's fire department

### TRUCKS AND APPARATUS

The City currently owns eight fire/EMS vehicles. The fire department has assigned four vehicles to Station 61 and the remaining four vehicles to Station 62. The following table shows each station's current fire/EMS vehicle inventory.



**FIGURE 3.2: CURRENT TRUCKS AND APPARATUS**

	Station 61	Station 62	Totals
Fire Engine/Pumper	1	1	2
Water Tender	1	-	1
Ladder Truck	1	-	1
Ambulance/Rescue	1	2	3
Utility Vehicle	1	-	1
Heavy Rescue Unit	-	-	-
Auxiliary/Grassfire	-	1	1
Hazardous Materials Units	-	-	-
<b>TOTALS:</b>	<b>5</b>	<b>4</b>	<b>9</b>

**FIREFIGHTERS AND ADMINISTRATIVE**

The fire department maintains three shifts or companies of professional firefighters/emergency medical technicians (“EMTs”) per station. Station 61 continuously rotates three companies of six firefighters/EMTs while Station 62 rotates three companies of only five firefighters/EMTs. In addition, the fire department currently staffs one clerical employee, and another clerical employee splits time equally among fire and police services.

**CAPACITY FOR GROWTH IN FIRE STATIONS**

Although each of the City’s fire departments is assigned to cover a designated area of the City, the fire crews assigned to Station 61 will assist their peers in Station 62 by responding to calls within Station 62’s service area when additional help is needed. Therefore, it is difficult to measure each station’s capacity to respond to additional calls.

However, based upon the number of firefighters and apparatus assigned to each station, the fire department is currently operating at capacity. Both stations lack additional space to accommodate future personnel and apparatus needs. The fire department currently divides eight fire/EMS vehicles and 34 firefighters among its two stations. As development continues to occur at a rapid pace, the need for vehicles and firefighters will increase which will force the City to construct additional fire stations to maintain requisite response times.

**PREVIOUS PUBLIC SAFETY FACILITIES**

**OLD CITY HALL**

Approximately 3,500 square feet of floor space in the old City Hall were dedicated to public safety. Of the 3,500 square feet, approximately 500 square feet were dedicated to fire administration and the remaining 2,975 square feet were dedicated to police administration. Both administrations moved into the new City Hall upon its completion in 2003.



It has been determined that the space dedicated to public safety in the old City Hall was deficient in meeting the needs of existing users given the level of service standards required in this document. The structuring of the proportionate share analysis separates the costs and floor space of the existing facilities that pertain to growth from those related to existing users. The 2004 estimated floor space needs for police to serve existing users is 7,119 Sf. The previous City Hall had 2,975 Sf dedicated to police areas minus incarceration. Therefore the costs of the replacing the first 2,975 Sf and the additional 4,144 Sf of area needed to serve existing users cannot be included in the impact fees.

## **ANALYSIS OF EQUITY PAID INTO EXISTING FACILITIES**

### **FIRE STATION EQUITY**

The City's fire department currently occupies two fire stations, Stations 61 and 62, and approximately 1,500 square feet at City Hall. Two additional stations, Stations 63 and 64, will be constructed in 2007 and 2010 to accommodate future growth. The total land and building values of the existing and future fire stations and the portion of the City Hall allotted to the department are shown in Figure 3.2. Replacement values for existing facilities are shown at current year values, and the values of future facilities assume a 5% annual inflation. It has been determined that existing users will buy into the portion of these facilities that will serve them. This portion equates to approximately 35% of both existing and future facilities.

**FIGURE 3.3: CURRENT VALUES OF EXISTING FIRE/EMS FACILITIES**

<b>Facility</b>	<b>2004 Costs</b>	<b>Bond Financing Costs</b>	<b>Total Costs</b>
Station 61	\$ 1,650,000	\$ -	\$ 1,650,000
Station 62	1,650,000	-	1,650,000
City Hall	171,882	124,453	296,335
<b>TOTALS:</b>	<b>\$ 3,471,882</b>	<b>\$ 124,453</b>	<b>\$ 3,596,335</b>

### **POLICE STATION EQUITY**

The City's police department currently occupies nearly 10,000 square feet at City Hall and 816 square feet of storage space in the City Yard. In addition, the police department plans to occupy approximately 15,800 square feet in the Satellite City Offices, which is anticipated to be constructed in 2015.



The total land and building values of the portions of the existing and future police facilities allotted to the department are shown in Figure 3.3. Replacement values for existing facilities are shown at current year values, and the value of the Satellite Station assumes a 5% annual inflation. It has been determined that existing users will buy into the portion of these facilities that will serve them. This portion equates to approximately 29% of both existing and future facilities.

**FIGURE 3.4: CURRENT VALUE OF EXISTING POLICE FACILITIES**

Facility	2004 Costs	Bond Financing Costs	DRC + Financing
City Yard	\$ 54,823	\$ -	\$ 54,823
City Hall	1,137,582	823,677	1,961,259
<b>TOTALS:</b>	<b>\$ 1,192,405</b>	<b>\$ 823,677</b>	<b>\$ 2,016,082</b>



## CHAPTER 4 LAND-USE PLANNING AND CALL PROJECTIONS

### **PROJECTED PHASING OF DEVELOPMENT**

Development is occurring rapidly throughout the City. The placement of future fire stations depends upon the accurate determination of where and when growth will occur. Many developments, including the Daybreak Development, will create enormous strains on the City's existing systems, including the public safety system. A thorough knowledge of when and where phasing of new development will occur will help the City alleviate many of the strains that will undoubtedly arise as the City continues to grow.

Two key considerations needed in the evaluation of development growth are the timing of development phasing and the planning of future roadways throughout the undeveloped portions of the City. Rapid growth may cause slower response times as existing stations are forced to respond to calls in new developments that move further from existing stations. In addition, as growth moves further from the existing stations into undeveloped areas of the City, the roadways and related traffic congestion leading to these developments must be factored into the planning of future stations. Depending upon the timings of future roadways, the future fire stations' locations may be altered and the ability to respond to calls within target response times may be limited.

### **DAYBREAK DEVELOPMENT**

Construction of the 4,200-acre Daybreak Development directly west of the City is scheduled to begin in July 2004. With the planned construction of 13,667 residential units in the development, the City's population is expected to increase by nearly 38,000 residents with the completion of Daybreak.

Including the Daybreak Development, the following table shows the City's population, as projected by the City engineers, through 2030. According to the City's planning department, South Jordan will be home to nearly 98,883 residents by build-out.



**FIGURE 4.1: POPULATION PROJECTIONS (INCLUDING DAYBREAK)**

Year	Population	Households	Year	Population	Households
2004	41,954	11,135	2018	89,215	27,123
2005	45,468	12,226	2019	90,135	27,648
2006	48,981	13,317	2020	91,055	28,173
2007	52,495	14,408	2021	91,838	28,436
2008	56,941	15,806	2022	92,621	28,699
2009	61,388	17,204	2023	93,403	28,962
2010	65,834	18,602	2024	94,186	29,225
2011	69,958	19,991	2025	94,969	29,488
2012	74,083	21,380	2026	95,752	29,751
2013	78,207	22,770	2027	96,535	30,014
2014	82,332	24,159	2028	97,317	30,277
2015	86,456	25,548	2029	98,100	30,540
2016	87,376	26,073	2030	98,883	30,803
2017	88,296	26,598			

**INCREMENTAL DEVELOPMENT BY ZONING CLASS**

**FIGURE 4.2: CURRENTLY DEVELOPED LAND WITHIN THE CITY**

	South Jordan City	Daybreak	Total
	Lots/Acres	Lots/Acres	Lots/Acres
Single Family Dwelling Units (SFDU)	10,211	201	10,412
Multi-Family Dwelling Units (MFDU)	654	69	723
Hotel/Motel (Rooms)	228	-	228
<b>Total Dwelling Units</b>	<b>11,093</b>	<b>270</b>	<b>11,363</b>
School (Acres)	126	-	126
Nursing Home (Acres)	9	-	9
Church (Acres)	92	-	92
Office (Acres)	107	-	107
Light Industrial (Acres)	40	-	40
Commercial (Acres)	140	-	140
<b>Total Acreage</b>	<b>514</b>	<b>-</b>	<b>513.92</b>

**FIGURE 4.3: CURRENTLY UNDEVELOPED LAND WITHIN THE CITY**

	South Jordan City	Daybreak	Total
	Lots/Acres	Lots/Acres	Lots/Acres
Single Family Dwelling Units (SFDU)	5,894	9,966	15,860
Multi-Family Dwelling Units (MFDU)	377	3,431	3,808
Hotel/Motel (Rooms)	302	-	302
<b>Total Dwelling Units</b>	<b>6,573</b>	<b>13,397</b>	<b>19,970</b>
School (Acres)	56	173	229
Nursing Home (Acres)	10	-	10
Church (Acres)	153	118	271
Office (Acres)	354	137	491
Light Industrial (Acres)	10	149	159
Commercial (Acres)	307	159	466
<b>Total Acreage</b>	<b>890</b>	<b>736</b>	<b>1,626</b>



## CHAPTER 5 LOCATIONS AND TIMINGS OF FUTURE PUBLIC SAFETY FACILITIES

### **FIRE/EMS TARGET RESPONSE TIMES**

Many state and national bodies, including the National Fire Protection Association (“NFPA”), have established response time guidelines for cities and fire districts. While these guidelines can be used as benchmarks, cities and fire districts are not required to adopt universal response times due to the wide variety of characteristics that differ from community to community.

Since no universal response time exists, each city and/or fire district should establish response times which best suit the needs and means of the community and its residents. The City of South Jordan has categorized its fire/EMS calls based upon a system which ranks each call’s level of severity. As shown in the table below, an “A” call is the least severe type of call, while an “E” call is the most severe. It is assumed that fire engines will be the first responders, and paramedics and ambulances will always respond jointly. The department strives to respond to at least 90% of its calls within the response times shown below, as based upon City policy.

**FIGURE 5.1: FIRE/EMS RESPONSE TIMES**

<b>Target Response Times<sup>1</sup></b>		
<b>Type of Call</b>	<b>1st Responders (Fire Engine)</b>	<b>Paramedics/ Ambulance</b>
A Calls	< 7:59 minutes	< 7:59 minutes
B Calls	< 7:59 minutes	< 7:59 minutes
C Calls	< 4:59 minutes	< 7:59 minutes
D Calls	< 4:59 minutes	< 7:59 minutes
E Calls	< 4:59 minutes	< 7:59 minutes

1- Established in City Policy Chapter 8.28.040

### **CURRENT DEFICIENCIES IN CALL AREAS**

Fire stations have been strategically situated to ensure that the vast majority of the City’s existing development is currently covered by the established response time standards. Deficiencies do exist in one development, the Sunstone Development, which the City cannot adequately serve directly and meet its established standards due to the current placement of Stations 61 and 62. However, the City has assured that Sunstone’s residents are adequately protected by entering into an Automatic Aid Agreement with Herriman City.



## **GENERAL FACTORS AFFECTING RESPONSE TIMES**

While the City has established response times for fire/EMS services, many factors can restrict fire crews from arriving at a call within these times. The following paragraphs discuss the primary factors which may affect the City's target response times.

### **LAND DEVELOPMENT**

Land-use development is a key factor in the placement, timing, and purpose of a public safety facility, particularly a fire station. As fire/EMS crews respond from centrally located facilities, response times increase as development pushes further away from the facilities. Therefore, in analyzing future fire/EMS needs, the City must consider the patterns of growth, type of growth and development timings that will occur before development begins. Land-uses that may place a more significant impact upon the City's public safety system must be identified. For example, industrial land-uses require different fire suppression apparatus than residential land-uses, and fire stations must be adequately sized to house the needed apparatus.

### **OBSTACLES AND BARRIERS**

Along with roadway conditions mentioned in the previous chapter, natural and manmade obstacles which affect response times must also be considered when determining fire station locations. Such natural and manmade obstacles include canyons with limited access, waterways with limited bridges, railroad tracks, etc. The City must consider how the limited number of bridges crossing the Jordan River (only three bridges cross the Jordan River within the City's boundaries) could affect responding fire/EMS units.

### **OTHER CONSIDERATIONS**

Another factor that must be considered when determining the placement of fire stations is the disturbance that residential areas will receive from fire/EMS units that are responding to late night calls. Ideally, stations should be placed in areas that are predominantly commercial, but buffers may also be considered when stations are located near residential neighborhoods.

## **ROADWAYS**

The City must also consider several factors involving roadways before determining the construction timing and placement of future fire stations. Roadway factors that may inhibit response times include the timing of future key roadways, traffic congestion, travel distances, and access across railroad tracks and over the Jordan River. These factors will be discussed in the following paragraphs.



### **TIMING OF FUTURE KEY ROADWAYS**

An adequate roadway system is arguably the most crucial factor for fire suppression units to consider as they strive to achieve optimal response times. As growth within the City continues at a rapid pace, the City must be aware of the construction timing of future roadways in order to determine where future fire stations are best positioned. This CFP will analyze the City's public safety capital facility needs in conjunction with the Roadways Masterplan prepared by Civil Science, Inc. and InterPlan, Co. The City's future roadways are detailed in the attached appendices. The following paragraphs outline the City's need and placement of future stations based upon the construction timings of future key roadways.

### **STATION 63 - DAYBREAK**

Due to the rapid amount of growth that will occur within the Daybreak Development over the next ten years, the City must construct an additional fire station, Station 63, to provide fire protection to these residents. The City has proposed a location for the new station in the heart of the Daybreak Development near 11000 South 6000 West, directly west of the proposed Legacy Highway. However, the majority of arterial roadways west of 5600 West will not be constructed until 2015 to 2030, so the ideal location for Station 63 is on the east side of the Legacy Highway (Legacy Highway will run north and south through the Daybreak Development between 5200 and 6000 West).

By locating Station 63 on the east side of Legacy Highway, the station's responding units may adequately respond to the preliminary development in Daybreak by using the major roadways that are projected to be completed by 2010. In addition, the station will also serve the growth that is expected to expand westward as Daybreak nears build-out in 2020 by using the arterial roadways which will be constructed from 2015 to 2030. Station 63 will be constructed in 2007 to coincide with Daybreak's preliminary development phasing.

### **SUNSTONE DEVELOPMENT**

In addition to serving growth with the Daybreak Development, Station 63 will also provide fire coverage to the Sunstone Development. As discussed in this CFP, the Sunstone Development, located in the southwest portion of the City, is currently serviced by Herriman's fire department pursuant to the Automatic Aid Agreement. Units from South Jordan's Station 62 are unable to respond to calls in Sunstone within the City's target response times due to a current lack of arterial roadways linking the station to the development. Since these major roadways have not yet been constructed, the City currently relies upon units from Herriman to be the first responders to calls within the Sunstone Development while units from South Jordan arrive as secondary responders.

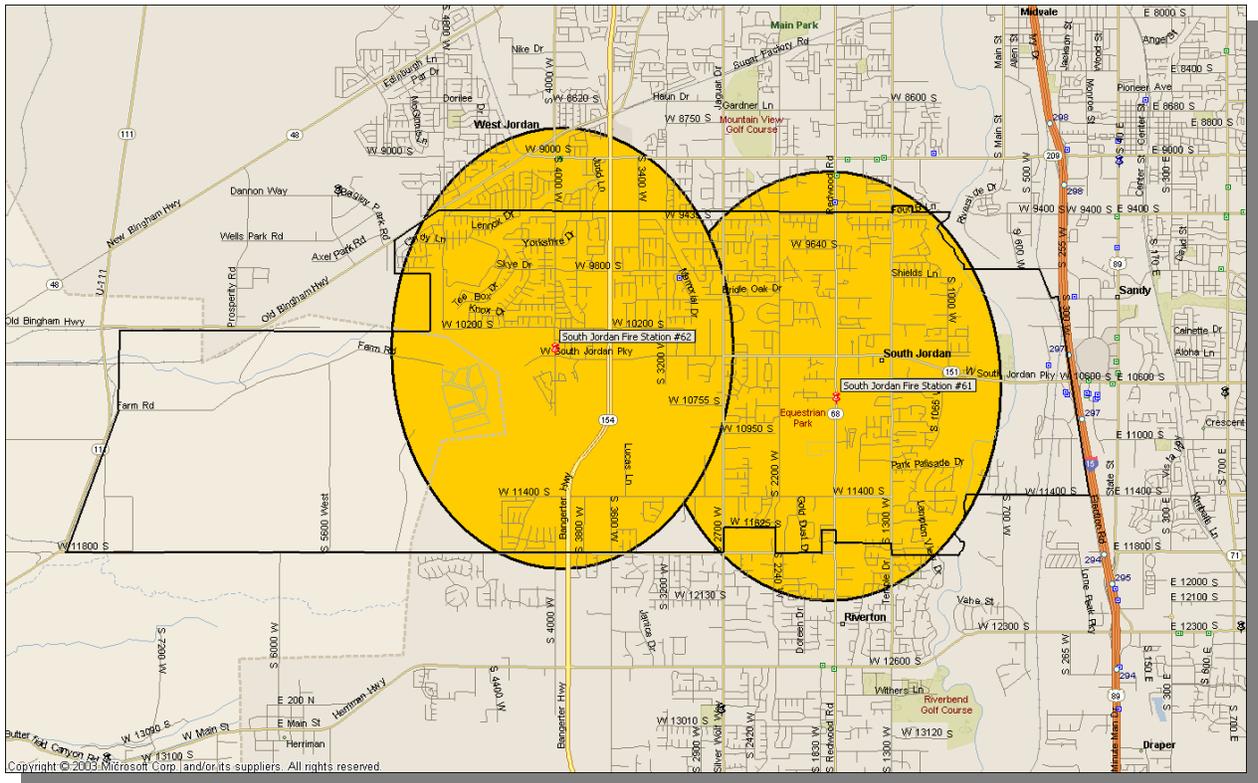
With the construction of Station 61, the City will be able to respond to Sunstone within the City's targeted response times thereby eliminating its need to rely upon Herriman City.



## STATION 64 - RIVERBOTTOMS

As shown in Figure 4.5, residences and businesses located on the eastern edge of the City's boundaries are currently provided fire protection by Sandy City, pursuant to an Automatic Aid Agreement, rather than the City of South Jordan. To achieve its goal of providing fire protection within its targeted response times to all of its residents rather than rely upon help from surrounding communities, the City plans to construct an additional station, Station 64, near 10600 South 800 West.

**FIGURE 5.2: CURRENT FIRE COVERAGE**



The subdivision located between 300 West and 1000 West and 10600 South and 11400 South is inadequately protected by the City's existing fire stations. Units responding from Station 61, located at approximately 10700 S. Redwood Road, cannot arrive to calls within this subdivision until nearly two to three minutes after the City's targeted response times. This inadequate fire coverage is caused by the lack of a bridge traversing the Jordan River on 11400 South between 1000 and 1300 West.

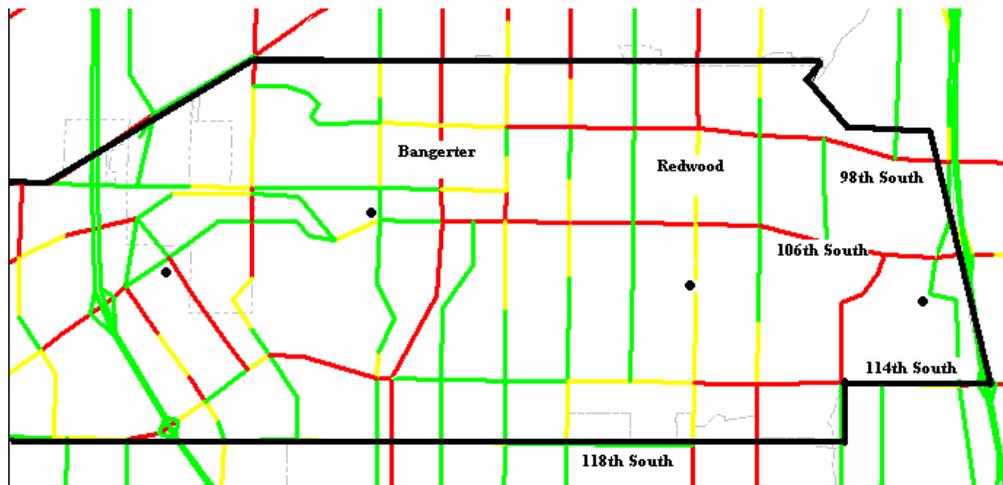
According to the Roadways Master plan, construction of a bridge on 11400 South between 1000 and 1300 West will be completed by 2010. If construction of the bridge is delayed, the need for Station 64 in the Riverbottoms area will become more urgent if the City hopes to adequately serve the subdivision near 11400 South 600 West. This analysis assumes that construction of Station 64 will be completed in 2010.



### TRAFFIC CONGESTION

As the City's population expands, the City's roadways will become increasingly more congested. While additional roadways will help ease the flow of traffic throughout many of the City's streets, responding fire units will still be forced to compete with traffic as they strive to arrive at calls within their targeted response times. With the construction of two additional fire stations, which will help decrease each station's geographical service area, and with the help of mobile infrared transmitters (MIRTs), which emit beams with a 1,500-foot range to receivers installed at the City's intersections in order to change the traffic light immediately, responding fire units anticipate being able to overcome the congested streets and reach their calls within the City's established target response times.

**FIGURE 5.3: ROADWAY CONGESTION AT BUILDOUT**



Level of Service refers to approximate highway levels of service according to techniques of the 2000 Highway Capacity Manual. Red refers to LOS F which implies failure and gridlock, yellow refers to LOS D or E which is highly congested but traffic flows, and green refers to acceptable LOS C, B, or A. All levels of service are approximate based on daily volumes.

### POLICE RESPONSE TIMES

Unlike fire protection, police service and response times are not dependent upon distances of respondents to fixed locations. Officers generally patrol throughout the City, and the units closest to a call will typically respond first. Therefore, a police station's location is determined by growth patterns rather than target response times, and most cities will try to position stations in a central location.



## CHAPTER 6 SIZING OF FIRE FACILITIES

### GENERAL SPACE REQUIREMENTS

A fire station's design layout and floor space requirements will vary depending upon a number of different factors. Each of these factors should be considered when designing a fire station, and each fire department is ultimately responsible for working with an architect to design a station which best accommodates the department's specific needs.

The City has established a current standard for floor space based upon its existing fire stations and the area reserved for fire operations in the City Hall. The current floor space layouts of Stations 61 and 62 and the portion of the City Hall that is occupied by fire administration are shown in Figure 6.1 below. Based upon these facilities, the current floor space standards and functional areas are shown in Figure 6.2.

**FIGURE 6.1: CURRENT FIRE FLOOR SPACE**

	City Hall Station <sup>1</sup>	Station 61	Station 62	Total Current Floorspace
Living Quarters	-	1,597	2,055	3,652
Training/Conference	391	660	660	1,711
Decontamination/Laundry	-	174	302	476
Special Operations/Arson	-	120	20	140
Storage	48	710	332	1,090
Exercise/Fitness	768	-	480	1,248
Hallway/Servant Areas	-	632	1,343	1,975
Administrative/Offices	300	520	538	1,358
Apparatus Bay	-	3,873	3,809	7,682
Total Bays:	-	2.5	3.0	5.5
<b>TOTALS:</b>	<b>1,507</b>	<b>8,286</b>	<b>9,539</b>	<b>19,332</b>

1- The training/conference, storage, exercise/fitness, and administrative/office areas are shared with the City's police department; the square footages shown above have already been reduced to include the portion of these areas that is reserved for the City's fire department

**FIGURE 6.2: CURRENT FIRE FLOOR SPACE LEVEL OF SERVICE STANDARDS**

Approximate Square Footage <sup>1</sup>	
Per Station	
Living Quarters	1,850
Training/Conference	650
Decontamination/Laundry	200
Special Operations/Arson	150
Storage	600
Exercise/Fitness	600
Hallway/Servant Areas	15% of Total Sf
Per Administrative & Clerical	
Administrative/Offices	150
Per Apparatus Bay	
Apparatus Bay	1,400

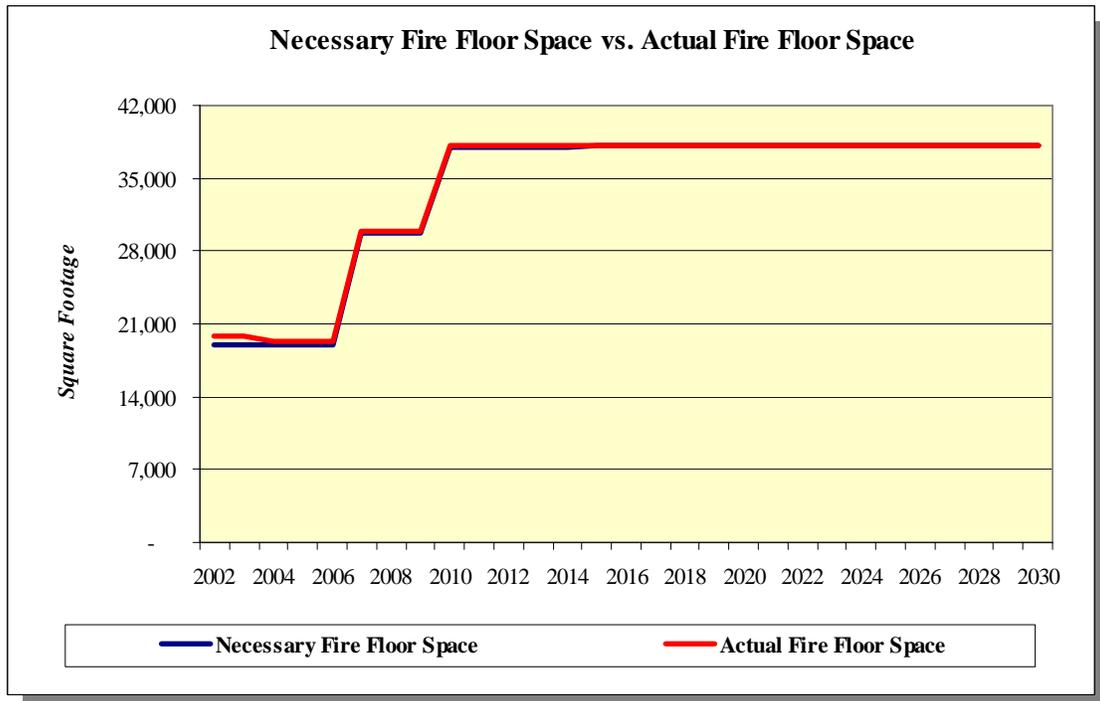
1- Based upon square footage standards of current stations



The City will construct fire stations that are sized based upon current level of service standards that have been established with the City’s existing fire stations. Figure 6.3 below shows the correlation between the amount of floor space needed and the planned construction of Stations 63 and 64. The graph illustrates how the construction of these stations is timed to meet the needs that development will place upon the fire suppression system.

**FIGURE 6.3: NEEDED FIRE FLOOR SPACE VS. PLANNED FIRE FLOOR SPACE**

Year	Needed Floor Space (Sf)	Planned Floor Space (Sf)	Year	Needed Floor Space (Sf)	Planned Floor Space (Sf)
2004	18,946	19,332	2018	38,065	38,071
2005	18,946	19,332	2019	38,065	38,071
2006	18,946	19,332	2020	38,065	38,071
2007	29,670	29,867	2021	38,065	38,071
2008	29,670	29,867	2022	38,065	38,071
2009	29,670	29,867	2023	38,065	38,071
2010	37,893	38,071	2024	38,065	38,071
2011	37,893	38,071	2025	38,065	38,071
2012	37,893	38,071	2026	38,065	38,071
2013	37,893	38,071	2027	38,065	38,071
2014	37,893	38,071	2028	38,065	38,071
2015	38,065	38,071	2029	38,065	38,071
2016	38,065	38,071	2030	38,065	38,071
2017	38,065	38,071			





## FUTURE STATION NEEDS

The demand for additional floor space is driven by several different factors. The City's land-use will determine how many and what type of fire apparatus are needed to adequately serve the area. The number of fire suppression and EMS vehicles needed within the City will determine the number of bays needed at each fire station and the number of firefighters necessary to operate the equipment. The number of bays and number of firefighters will then determine the square footage needs of each station.

The City may also determine the square footage needs of its fire stations by establishing a standard number of firefighters per 1,000 residents. An increase in population would consequently increase the number of firefighters needed to serve the City, and more firefighters would dictate the need for more space in the fire stations. Although the City has not adopted a standard number of firefighters per 1,000 residents, the City will use population growth as one indicator which will help determine the sizing of fire stations and the number of fire stations needed within the community.

Furthermore, the amount of money budgeted to the City's fire department directly affects facility sizing. Some cities may place a high priority on fire suppression facilities and apply a large portion of the city's General Fund revenues to fire/EMS services. These cities may be able to hire more firefighters and purchase additional fire suppression and EMS vehicles. An increase in personnel and emergency vehicles will directly affect the sizing of fire stations. The City's Fire Administration will work closely with the City Administrator and City Council to ensure that the fire department is allotted a fair portion of the City's budget so that the fire department can provide an adequate level of service to the City's residents.

## FUTURE VEHICLES AND APPARATUS BAYS

To accommodate the growth that is expected to occur within the City over the next 30 years, the City's fire department anticipates the need for seven additional fire/EMS vehicles. The fire department expects to purchase one fire engine/pumper, three ambulance/rescue vehicles, one auxiliary/grassfire unit, one heavy rescue engine, and one water tender. The fire department plans to house all of its units in its four stations (two existing stations and two future stations) in the following way:

**FIGURE 6.4: CURRENT AND FUTURE VEHICLES PER STATION**

Vehicles/Equipment	Station 61	Station 62	Station 63	Station 64	Total
Fire Engine/Pumper	1	1	-	1	3
Water Tender	-	-	-	1	1
Ladder Truck	1	-	-	-	1
Ambulance/Rescue	1	1	2	1	5
Utility Vehicle	1	-	-	-	1
Auxiliary/Grassfire	-	1	-	1	2
Hazardous Materials Unit	-	1	-	-	1
Heavy Rescue Engine	-	-	1	-	1
<b>TOTALS:</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>15</b>



The City is planning to construct Station 63 with two apparatus bays and Station 64 with 3.5 apparatus bays to house the fire vehicles/equipment shown above. Based upon the City's current floor space standards, Station 63 will contain approximately 2,800 total square feet in its apparatus bays and Station 64 will contain approximately 4,900 total square feet in its apparatus bays.

#### **ADMINISTRATIVE AREAS AND OFFICE SPACE**

The City's fire department anticipates the need for four offices within each of its future stations. One office is reserved for the department's Fire Chief, one office for the Department's Deputy Chief, one office for each station's Fire Marshall, and one office for each station's firefighters. Based upon the current standard of 150 square feet per administrative officer, the fire department should anticipate approximately 600 square feet of floor space per station to be divided among the four offices and all other administrative areas.



## CHAPTER 7 SIZING OF POLICE FACILITIES

### GENERAL SPACE REQUIREMENTS

Like fire stations, a police station’s design layout and floor space requirements will vary depending upon a number of different factors. Each of these factors should be considered when designing a police station, and each police department is ultimately responsible for working with an architect to design a station which best accommodates the department’s specific needs.

The City has established a current standard for floor space based upon its existing police stations and the area reserved for police operations in the City Hall. The current floor space layout of the portion of City Hall that is occupied by police administration is shown in Figure 7.1 below. Based upon these existing square footages, the current floor space standards and functional areas are shown in Figure 7.2.

**FIGURE 7.1: CURRENT POLICE FLOOR SPACE**

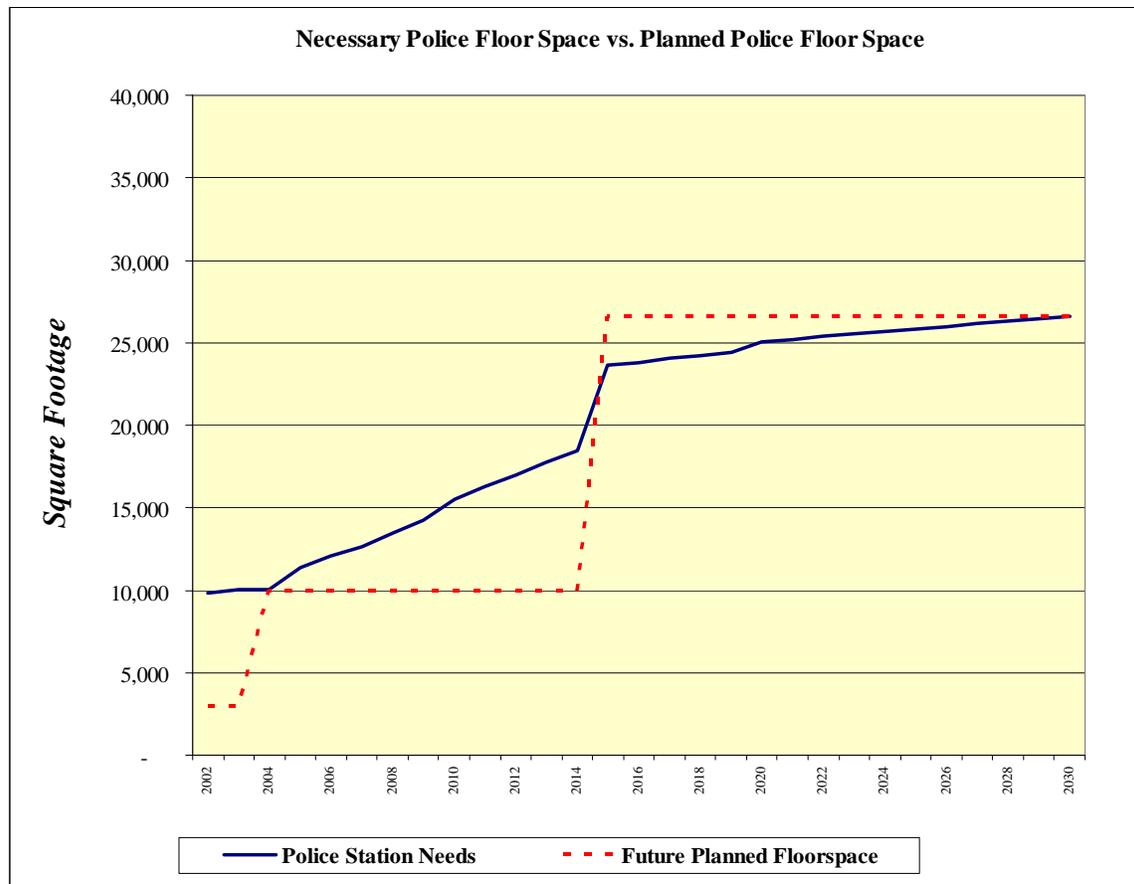
	City Hall Station	City Yard <sup>1</sup>	Total Current Floor Space
Investigations	596	-	596
Large Evidence Area	554	-	554
Evidence Processing	77	-	77
Prisoner Handling	554	-	554
Garage/Sallyport Area	959	-	959
Training Room	638	-	638
Records	550	-	550
Armory	153	-	153
Police Chief Office	208	-	208
Detective Office	355	-	355
Detective Sergeant Office	144	-	144
Patrol Sergeant Office	355	-	355
Batallion Chief Office	355	-	355
Secretary/Clerical	120	-	120
Administration Open Area	2,970	-	2,970
Hallways/Storage Closets	1,321	-	1,321
SRO Office	64	-	64
<b>TOTALS:</b>	<b>9,974</b>	<b>816</b>	<b>10,790</b>

1- City Yard used exclusively for storage



**FIGURE 7.2: NEEDED POLICE FLOOR SPACE VS. PLANNED POLICE FLOOR SPACE**

Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)	Year	Necessary Floor Space (Sf)	Actual Floor Space (Sf)
2004	10,046	9,974	2018	24,188	26,604
2005	11,394	9,974	2019	24,434	26,604
2006	12,081	9,974	2020	25,025	26,604
2007	12,657	9,974	2021	25,160	26,604
2008	13,454	9,974	2022	25,406	26,604
2009	14,251	9,974	2023	25,541	26,604
2010	15,504	9,974	2024	25,676	26,604
2011	16,301	9,974	2025	25,811	26,604
2012	16,988	9,974	2026	25,946	26,604
2013	17,785	9,974	2027	26,192	26,604
2014	18,472	9,974	2028	26,327	26,604
2015	23,673	26,604	2029	26,462	26,604
2016	23,808	26,604	2030	26,598	26,604
2017	24,053	26,604			





**FIGURE 7.3: CURRENT FLOOR SPACE LEVEL OF SERVICE STANDARDS**

Approximate Square Footage <sup>1</sup>	
Per Sworn Officer	
Investigations	16
Large Evidence Area	15
Evidence Processing	2
Prisoner Handling	15
Garage/Sallyport Area	26
Training Room	17
Records	15
Armory	4
Per Administrative/Clerical	
Police Chief Office	144
Detective Office	64
Detective Sergeant Office	144
Patrol Sergeant Office	64
Batallion Chief Office	120
Secretary/Clerical	64
Per Station	
Administration Open Area	2,970
Hallways/Storage Closets	1,370
SRO Office	64

1- Based upon square footage standards of current station

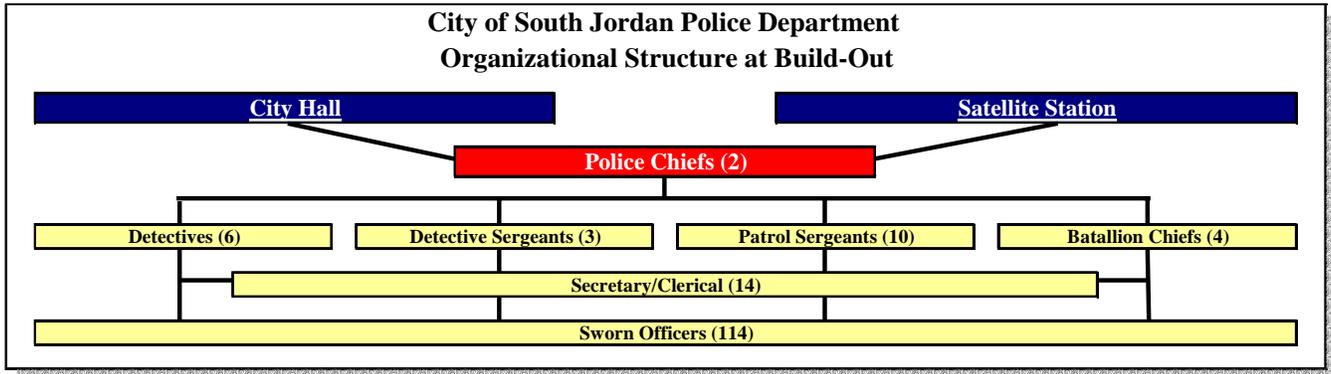
## **PROJECTED CREWS AND STAFFING**

The number of sworn officers needed per 1,000 persons is calculated using the FBI's Crime Index. The number of felonies committed within a city, as tracked through the Crime Index, will increase as the city's population increases and becomes more urbanized. As the number of offenses per capita increases, the City will be obligated to add more sworn officers to the police department. Consequently, as the number of sworn officers increase, additional administrative officers and clerical employees will be needed to completely process the additional workload.

At build-out, the police department estimates the need for 133 sworn officers. In addition, the police department will need 25 administrative officers and 14 clerical employees at build-out. The 25 administrative officers will include all police chiefs, detectives, detective sergeants, patrol sergeants, and battalion chiefs. All clerical employees will assist by helping the administrative officers with report filing, criminal processing, etc. Figures 7.4 and 7.5 show the projected staffing needs of the City through build-out.



**FIGURE 7.4: ORGANIZATIONAL STRUCTURE OF POLICE DEPARTMENT AT BUILD-OUT**



**FIGURE 7.5: PROJECTED STAFFING NEEDS**

Year	Projected Population	Sworn Officers	Chiefs	Detectives	Detective Sergeants	Patrol Sergeants	Battalion Chiefs	Secretary/Clerical	Total Staffing
1999	27,671	22	2	4	1	6	2	3.5	41
2000	29,437	26	2	4	1	6	2	3.5	45
2001	30,794	31	2	4	1	6	2	3.5	50
2002	34,171	35	2	4	1	6	2	3.5	54
2003	37,547	37	2	4	1	6	2	3.5	56
2004	41,954	37	2	4	1	6	2	3.9	56
2005	45,468	49	2	4	1	6	2	4.3	68
2006	48,981	55	2	4	1	6	2	4.7	75
2007	52,495	60	2	4	1	6	2	5.1	80
2008	56,941	67	2	4	1	6	2	5.4	87
2009	61,388	74	2	4	1	6	2	5.8	95
2010	65,834	81	2	5	2	8	3	6.2	107
2011	69,958	88	2	5	2	8	3	6.6	115
2012	74,083	94	2	5	2	8	3	7.0	121
2013	78,207	101	2	5	2	8	3	7.4	128
2014	82,332	107	2	5	2	8	3	7.8	135
2015	86,456	114	2	5	2	8	3	8.2	142
2016	87,376	115	2	5	2	8	3	8.6	144
2017	88,296	117	2	5	2	8	3	8.9	146
2018	89,215	118	2	5	2	8	3	9.3	147
2019	90,135	120	2	5	2	8	3	9.7	150
2020	91,055	121	2	6	3	10	4	10.1	156
2021	91,838	122	2	6	3	10	4	10.5	158
2022	92,621	124	2	6	3	10	4	10.9	160
2023	93,403	125	2	6	3	10	4	11.3	161
2024	94,186	126	2	6	3	10	4	11.7	163
2025	94,969	127	2	6	3	10	4	12.1	164
2026	95,752	128	2	6	3	10	4	12.4	165
2027	96,535	130	2	6	3	10	4	12.8	168
2028	97,317	131	2	6	3	10	4	13.2	169
2029	98,100	132	2	6	3	10	4	13.6	171
2030	98,883	133	2	6	3	10	4	14.0	172

**FUTURE FLOOR SPACE NEEDS**

Based upon the number of sworn officers, administrative officials and clerical staff needed at build-out, the following table shows the amount of floor space that is needed to accommodate the police department at build-out. The following floor space square footages have been calculated using the police floor space level of service standards.



**FIGURE 7.6: TOTAL FLOOR SPACE NEEDED AT BUILD-OUT**

	<b>Total Floor Space Needed at Build- Out</b>
Investigations	2,142
Large Evidence Area	1,991
Evidence Processing	277
Prisoner Handling	1,991
Garage/Sallyport Area	3,447
Training Room	2,293
Records	1,977
Armory	550
Police Chief Office	288
Detective Office	384
Detective Sergeant Office	432
Patrol Sergeant Office	640
Batallion Chief Office	480
Secretary/Clerical	896
Administration Open Area	5,940
Hallways/Storage Closets	2,740
SRO Office	128
<b>TOTALS:</b>	<b>26,598</b>

The City is currently planning to construct a 30,000 square foot satellite station, scheduled for completion in 2015. Approximately 15,808 square feet of the facility will be designated to police administration and the remaining portion of the facility will be occupied by other City departments.

**NECESSARY OFFICES PER STATION**

Based upon recommendations from the City’s police administration, the following offices should be included in all police stations:

- ☐ Police Chief office;
- ☐ Detective office;
- ☐ Detective Sergeant office;
- ☐ Patrol Sergeant office; and
- ☐ Battalion Chief office.

The specific number of offices needed will be determined by the police department. In addition to these offices, each station should also include one 64 square foot office to be shared by all of the City’s School Resource Officers.



## CHAPTER 8

# PROPORTIONATE SHARE ANALYSIS AND FINANCE ELEMENT

### **HISTORIC FUNDING OF PUBLIC SAFETY FACILITIES**

The City does not currently maintain either an Enterprise Fund or Special Revenue Fund for public safety. Instead, the City funds its needs through General Fund Revenues. General Fund Revenues include a mix of property taxes, sales taxes, federal and state grants, and any other general revenues that are available. As limited by Statute, this chapter will discuss only the historic and proposed methods of financing future capital facilities, which exclude equipment, apparatus, salary, and all other operational needs.

### **HISTORIC REVENUE SOURCES**

#### **GRANT FUNDING**

The City's public safety department has received many federal and state grants, all of which have been used to fund public safety training programs, equipment, and vehicles rather than public safety facilities. Therefore, according to the Impact Fees Act, no adjustments can legally be made to the impact fees for value contributed by these grants.

#### **PROPERTY TAX**

Property taxes have been used in the past to pay the debt service payments for the construction of existing fire and police stations. Property tax, an allowable revenue source for the construction of facilities, demonstrates that existing users have contributed to the existing facilities.

### **FUTURE FUNDING OF PUBLIC SAFETY FACILITIES**

The City has indicated a preference to use sales tax revenue bonds to fund the proposed Satellite City Office in 2015. The par amount of these bonds for this analysis, found in Enclosure E.2, is \$7,774,000 and total principal and interest expense of \$10,819,388. The true interest cost of the bonds is 5.195%

#### **PROPERTY TAX REVENUES**

Property tax revenues are not specifically identified in this analysis as a funding source for capital projects, but inter-fund loans can be made from general fund revenues which may include property taxes. Inter-fund loans will be repaid once sufficient impact fee revenues have been collected. Property tax revenues as well as sales tax and impact fee revenues may be pledged to Municipal Building Authority ("MBA") bonds as the source for lease payments.



### **SALES TAX REVENUES**

Sales tax revenues are received from the City based upon point of sale and the percentage of the State's population made up by South Jordan. Unlike property tax, sales tax cannot be linked specifically to South Jordan's residents as a large commercial development can draw people and sales tax revenues from many different communities. Sales tax revenues can also be used for many different public purposes rather than just public safety.

### **GRANTS AND DONATIONS**

Grants and donations are not currently contemplated in this CFP, but if grants are provided by new development, the donor will be entitled for a reimbursement for the value of the improvements funded through impact fees.

### **IMPACT FEE CREDITS**

The Impact Fees Act requires that a credit be provided to users that will contribute to public facilities through impact fees and also through another revenue source. The test that determines whether or not a credit is required states that a credit must be provided if the other tax revenues will be dedicated to fund the same system improvements to be funded by impact fees.

Sales tax revenues do not meet this test and will not be credited back to future users. Sales tax revenues that have already been received can be used in a myriad of ways other than solely funding public safety improvements. Impact fees most appropriately fund growth-related public safety projects, so any sales tax revenues collected from future development can be used to fund other projects. In contrast, if the City had implemented a property tax levy specifically to fund future public safety facilities, the public safety impact fee must provide a credit for future property tax contributions to be made by new development.

Lastly, the impact fee calculations are set up so that impact fees will fund 100% to future growth-related facilities identified in the Proportionate Share Analysis. Even so, there may be years that impact fee revenues cannot cover the annual growth-related expenses and other revenues, most likely general fund revenues including sales tax, will be used to make up any annual deficits. Any borrowed funds are to be repaid in their entirety through impact fees.

### **OVERVIEW OF IMPACT FEES**

Impact fees are charged to ensure that new growth pays its proportionate share of the costs for the development of public safety and other public infrastructure. Impact fee revenues can be attributed to future expansion of the public safety system if the revenues are used to maintain an existing level of service. Increases to an existing level of service cannot be funded with impact fee revenues.



Impact fees have become an ideal mechanism for funding growth-related infrastructure. Analysis is required to accurately assess the true impact of a particular user upon the City infrastructure and to prevent existing users from having to subsidize new growth.

### **EQUITY OF IMPACT FEES**

Impact fees are calculated based upon the proportionate share of the total facility costs determined by the portion of the total police and fire calls related to growth. This method results in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents and vice versa. This method also addresses current deficiencies by assuming that facilities are sized optimally to cover the City without deficiencies or excess at build-out. Since there is a deficiency in the City's existing public safety facilities, the portion that existing users should pay will include any payments that existing users have already made.

### **EFFECTS OF DEVELOPER FINANCINGS**

The City has discussed the option of requiring Kennecott Land, the developer of Daybreak, to fund the Daybreak fire station through a developer exaction. The majority of the station's costs would be borne by the Daybreak Development except for the portion of the station which serves the Sunstone Development. The proportionate share of the station that would serve Sunstone would be refunded back to Kennecott.

To the extent that a developer, namely Kennecott Land, can provide land and facilities for Fire Station 63, the City may be able to lower its financing costs. Developer financing may not necessarily change the total capital project cost basis, but the developer would be fronting cash for the purchase of land or the construction of the facility rather than the City.

Currently it is proposed that the two new stations would be funded through inter-fund loans rather than pursuing outside capital. Kennecott Land's funding of Station 63 would free up nearly \$2,352,217 in cash from the General Fund that would otherwise be used in an inter-fund loan. The City's current impact fee ordinance requires Kennecott Land to be credited for any facilities or land found within the CFP that is donated to the City in-lieu of impact fees. If the costs of the facilities donated are greater than Daybreak's impact fee liability, than impact fees collected from other parts of the City would be reimbursed back to Daybreak pursuant to the City's Impact Fee Ordinance and Development agreements.



## PROPORTIONATE SHARE OF COSTS

The Proportionate Share Analysis analyzes the split of the needs of future development with the needs of existing residents. The Proportionate Share Analysis restricts the City from collecting impact fees that place an inequitable burden on new development relative to the impact that the development will place upon the system.

The following table shows the portion of the total current year capital project costs that are attributable to growth.

**FIGURE 8.1: PROPORTIONATE SHARE OF COSTS FOR FIRE FACILITIES**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
Fire Station 61	\$ 1,650,000	64.62%	\$ 1,066,298
Fire Station 62	1,650,000	64.62%	1,066,298
City Hall	296,335	64.62%	191,504
Fire Station 63	2,352,217	64.62%	1,520,100
Fire Station 64	2,279,380	64.62%	1,473,029
<b>TOTALS:</b>	<b>\$ 8,227,932</b>		<b>\$ 5,317,229</b>

**FIGURE 8.2: PROPORTIONATE SHARE OF COSTS FOR POLICE FACILITIES**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
City Yard	\$ 54,823	71.38%	\$ 39,131
City Hall	1,961,259	71.38%	1,399,876
Satellite City Office / Police Office	6,546,731	71.38%	4,672,821
<b>TOTALS:</b>	<b>\$ 8,562,813</b>		<b>\$ 6,111,827</b>



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## APPENDICES

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# ENCLOSURE A: POPULATION PROJECTIONS

Table A.2.1 Population and Household Projections <sup>1</sup>					
Year	Population	Households	Year	Population	Households
2004	41,954	11,135	2018	89,215	27,123
2005	45,468	12,226	2019	90,135	27,648
2006	48,981	13,317	2020	91,055	28,173
2007	52,495	14,408	2021	91,838	28,436
2008	56,941	15,806	2022	92,621	28,699
2009	61,388	17,204	2023	93,403	28,962
2010	65,834	18,602	2024	94,186	29,225
2011	69,958	19,991	2025	94,969	29,488
2012	74,083	21,380	2026	95,752	29,751
2013	78,207	22,770	2027	96,535	30,014
2014	82,332	24,159	2028	97,317	30,277
2015	86,456	25,548	2029	98,100	30,540
2016	87,376	26,073	2030	98,883	30,803
2017	88,296	26,598			

1- Includes the Daybreak Development

Figure A.2.1 Population Projections

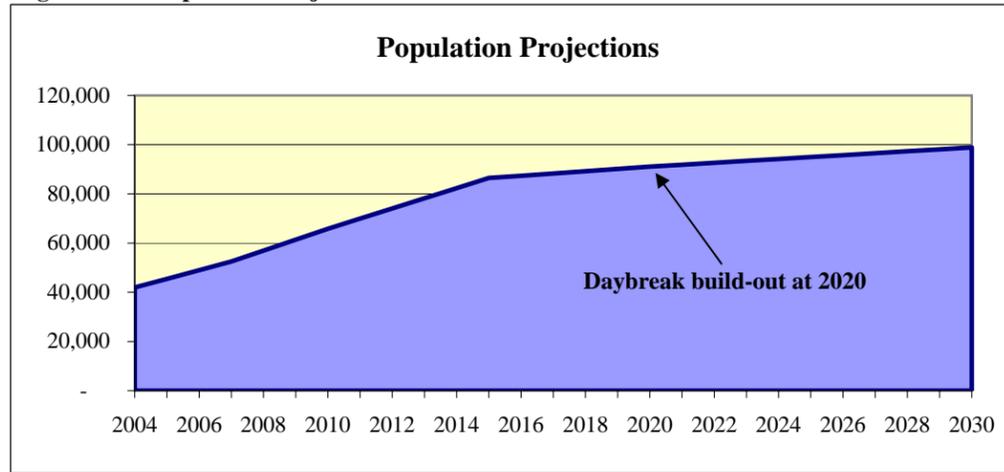


Table A.2.2 Projection of Total Future Fire Calls

Year	Public Calls	Private Calls	Total Calls	Year	Public Calls	Private Calls	Total Calls
2004	685	966	1,651	2018	1,724	2,431	4,155
2005	762	1,075	1,837	2019	1,744	2,460	4,204
2006	839	1,184	2,023	2020	1,764	2,488	4,252
2007	917	1,293	2,209	2021	1,781	2,512	4,294
2008	1,014	1,431	2,445	2022	1,799	2,537	4,335
2009	1,112	1,568	2,681	2023	1,816	2,561	4,377
2010	1,210	1,706	2,916	2024	1,833	2,585	4,418
2011	1,301	1,834	3,135	2025	1,850	2,609	4,460
2012	1,391	1,962	3,353	2026	1,868	2,634	4,501
2013	1,482	2,090	3,572	2027	1,885	2,658	4,543
2014	1,573	2,218	3,790	2028	1,902	2,682	4,584
2015	1,663	2,345	4,009	2029	1,919	2,706	4,626
2016	1,683	2,374	4,057	2030	1,936	2,731	4,667
2017	1,704	2,402	4,106				

- Population and household projections prepared by City Planners and Kennebec Land Development in conjunction with Roadway Masterplan update, 2004.

- Households include single and multi-family units which are separated in Table B.4 found in Enclosure B.

- Growth in future fire and police calls has been projected based upon the rates of growth projected for populations.

- Fire and police calls to private land uses (i.e., residential, commercial, industrial, schools, etc.) are the basis for the calculation of the public safety impact fees. The calculation of the total private calls is found in Enclosure C.2 in Table C.2.1 and Table C.2.4.

- Public calls include calls to roadways, parks, public and city facilities, etc.

Table A.2.3 Projection of Total Future Police Calls

Year	Public Calls	Private Calls	Total Calls	Year	Public Calls	Private Calls	Total Calls
2004	18,433	4,268	22,701	2018	56,591	13,104	69,696
2005	21,270	4,925	26,195	2019	57,334	13,276	70,610
2006	24,107	5,582	29,689	2020	58,077	13,448	71,525
2007	26,943	6,239	33,183	2021	58,709	13,595	72,303
2008	30,533	7,070	37,604	2022	59,341	13,741	73,082
2009	34,123	7,902	42,025	2023	59,973	13,887	73,860
2010	37,713	8,733	46,446	2024	60,605	14,034	74,638
2011	41,043	9,504	50,547	2025	61,237	14,180	75,417
2012	44,373	10,275	54,648	2026	61,869	14,326	76,195
2013	47,703	11,046	58,750	2027	62,501	14,473	76,974
2014	51,033	11,817	62,851	2028	63,133	14,619	77,752
2015	54,363	12,588	66,952	2029	63,765	14,765	78,530
2016	55,106	12,760	67,866	2030	64,397	14,912	79,309
2017	55,849	12,932	68,781				



# ENCLOSURE C.1: HISTORIC FIRE/EMT AND POLICE SERVICE CALLS

**Table C.1.1 Fire/EMT Responses**

Hotel/Motel			Office			Commercial			Light Industrial			School		
Categories	2002	2003	Categories	2002	2003	Categories	2002	2003	Categories	2002	2003	Categories	2002	2003
Hotel/Motel	9.00	7.00	Doctor Office	1.00	5.00	Athletic/ Health Club	8.00	3.00	Industrial Place - EMS	27.00	39.00	Elementary School	2.00	1.00
Unspecified	0.03	0.07	Clinic	-	1.00	Restaurant or Cafeteria	2.00	1.00	Manufacturing Processing	4.00	1.00	High School	2.00	3.00
	<b>9.03</b>	<b>7.07</b>	Business Office	16.00	14.00	Auditorium/ Concert	1.00	-	Unspecified	0.11	0.42	Educational Institution - EMS	23.00	16.00
	<b>Average</b>	<b>8.05</b>	Computer Center	1.00	-	Day Care in commercial	-	1.00		<b>31.11</b>	<b>40.42</b>	Unspecified	0.10	0.21
			Unspecified	0.06	0.21	Mercantile, Business	4.00	2.00	<b>Average</b>	<b>35.76</b>			<b>27.10</b>	<b>20.21</b>
				<b>18.06</b>	<b>20.21</b>	Convenience Store	2.00	1.00				<b>Average</b>	<b>23.65</b>	
				<b>Average</b>	<b>19.14</b>	Food and Beverage, Grocery	1.00	3.00						
Total City Fire Calls - 2002 =	1,682.00					Textile, Clothing Store	-	1.00						
Total City Fire Calls - 2003 =	1,651.00					Specialty Shop	1.00	1.00						
						Recreational, Hobby	-	1.00						
Total Unspecified 2002 =	6.00					Laundry, Dry Cleaning	1.00	-						
Total Unspecified 2003 =	10.00					Professional Supplies	-	1.00						
						Motor vehicle sales	2.00	3.00						
						General retail, Other	3.00	4.00						
						Bank	1.00	1.00						
						Post Office or Mailing Firms	-	1.00						
						Outbuilding or Shed, Storage	1.00	-						
						Unspecified	0.10	0.25						
							<b>27.10</b>	<b>24.25</b>						
							<b>Average</b>	<b>25.67</b>						

- Enclosure C.1 identifies private calls from fire/EMT and police and categorizes these calls into the applicable impact fee land uses. The total private calls for fire/EMT and police are summarized in Tables C.1.3, C.1.4, C.1.5, and C.1.6. The historic number of fire/EMT and police calls per unit or acre are calculated by dividing the average number of calls for 2002 and 2003 by the developed land as determined in Enclosure B.

- Unspecified calls have been added proportionate to the percentage of total calls that pertain to each land use.

**Table C.1.2 Police Responses**

Hotel/Motel			Office			Commercial			Light Industrial			School		
Categories	2002	2003	Categories	2002	2003	Categories	2002	2003	Categories	2002	2003	Categories	2002	2003
Hotel/Motel	66.00	64.00	Drug Store/Doctor Office	29.00	21.00	Bank/ S&L	14.00	15.00	Estimated	5.00	5.00	School	168.00	220.00
Unspecified/Construction	88.63	36.13	Commercial <sup>1</sup>	117.00	89.00	Convenience Store	45.00	58.00	Unspecified/Construction	-	-	Unspecified/Construction	225.61	124.19
	<b>154.63</b>	<b>100.13</b>	Unspecified/Construction	196.07	62.10	Grocery/ Supermarket	75.00	57.00		<b>5.00</b>	<b>5.00</b>		<b>393.61</b>	<b>344.19</b>
	<b>Average</b>	<b>127.38</b>		<b>342.07</b>	<b>172.10</b>	Restaurant	43.00	42.00	<b>Average</b>	<b>5.00</b>		<b>Average</b>	<b>368.90</b>	
				<b>Average</b>	<b>257.08</b>	Service/Gas	61.00	43.00						
						Specialty Store	43.00	60.00						
						Dept./Discount Store	10.00	7.00						
						Rental Storage Facility	3.00	3.00						
						Bar/Nightclub	1.00	1.00						
						Unspecified/Construction	396.16	161.45						
							<b>691.16</b>	<b>447.45</b>						
							<b>Average</b>	<b>569.30</b>						

1- Commercial is defined as office complexes

Total City Police Calls - 2002 = 21,187.00  
Total City Police Calls - 2003 = 22,701.00

Total Unspecified/Construction Sites 2002 = 12,144.00  
Total Unspecified/Construction Sites 2003 = 8,191.00

Nursing Home/Assisted Living			Church			Residence		
Categories	2002	2003	Categories	2002	2003	Categories	2002	2003
Estimated	5.00	5.00	Church	46.00	57.00	Residence	1,774.00	1,983.00
Unspecified	6.71	2.82	Unspecified	61.77	32.18	Unspecified	2,382.34	1,119.42
	<b>11.71</b>	<b>7.82</b>		<b>107.77</b>	<b>89.18</b>		<b>4,156.34</b>	<b>3,102.42</b>
	<b>Average</b>	<b>9.77</b>		<b>Average</b>	<b>98.48</b>		<b>Average</b>	<b>3,629.38</b>

**Table C.1.3 Summary of Private Fire/EMT Calls**

	2002	2003	Average
<b>Residential/Hotel</b>			
Single Family (SFDU)	796.55	755.82	776.19
Multi-Family (MFDU)	28.10	13.14	20.62
Hotel/Motel (Rooms)	9.03	7.07	8.05
<b>Business/Institutional</b>			
School (Acres)	27.10	20.21	23.65
Nursing Home (Acres)	82.29	80.84	81.57
Church (Acres)	5.02	4.04	4.53
Office (Acres)	18.06	20.21	19.14
Light Industrial (Acres)	31.11	40.42	35.76
Commercial (Acres)	27.10	24.25	25.67
<b>Totals</b>	<b>1,024.37</b>	<b>966.00</b>	<b>995.18</b>

**Table C.1.4 Historic Private Fire/EMT Calls per Unit**

Zone	Developed Acres/Units <sup>1</sup>	Historic Private Fire/EMS Calls	Fire/EMS Calls per Unit/Acre
<b>Residential/Hotel</b>			
Single Family (SFDU)	10,411.85	776.19	0.075
Multi-Family (MFDU)	723.15	20.62	0.029
Hotel/Motel (Rooms)	227.93	8.05	0.035
<b>Total Units</b>	<b>11,362.93</b>	<b>804.86</b>	
<b>Business/Institutional</b>			
School (Acres)	125.58	23.65	0.188
Nursing Home (Acres)	9.12	81.57	8.944
Church (Acres)	92.00	4.53	0.049
Office (Acres)	106.73	19.14	0.179
Light Industrial (Acres)	40.00	35.76	0.894
Commercial (Acres)	140.49	25.67	0.183
<b>Total Acreage</b>	<b>513.92</b>	<b>190.32</b>	

1- Enclosure B, Table B.5

**Table C.1.5 Summary of Private Police Calls**

	2002	2003	Average
<b>Residential/Hotel</b>			
Residential	4,156.34	3,102.42	3,629.38
Hotel/Motel (Rooms)	154.63	100.13	127.38
<b>Business/Institutional</b>			
School (Acres)	393.61	344.19	368.90
Nursing Home (Acres)	11.71	7.82	9.77
Church (Acres)	107.77	89.18	98.48
Office (Acres)	342.07	172.10	257.08
Light Industrial (Acres)	5.00	5.00	5.00
Commercial (Acres)	691.16	447.45	569.30
<b>Totals</b>	<b>5,862.29</b>	<b>4,268.28</b>	<b>5,065.29</b>

**Table C.1.6 Historic Private Police Calls per Unit**

Zone	Developed Acres/Units <sup>1</sup>	Historic Private Police Calls	Police Calls per Unit/Acre
<b>Residential/Hotel</b>			
Residential <sup>2</sup>	11,135.00	3,629.38	0.326
Hotel/Motel (Rooms)	227.93	127.38	0.559
<b>Total Units</b>	<b>11,362.93</b>	<b>3,756.76</b>	
<b>Business/Institutional</b>			
School (Acres)	125.58	368.90	2.938
Nursing Home (Acres)	9.12	9.77	1.071
Church (Acres)	92.00	98.48	1.070
Office (Acres)	106.73	257.08	2.409
Light Industrial (Acres)	40.00	5.00	0.125
Commercial (Acres)	140.49	569.30	4.052
<b>Total Acreage</b>	<b>513.92</b>	<b>1,308.53</b>	

1- Enclosure B, Table B.5

2- Police calls are not distinguished between single family and multi-family residences

# ENCLOSURE C.2: FUTURE FIRE/EMT AND POLICE CALLS

**Table C.2.1 Total Future Fire/EMS Calls to Private Land Uses**

Zone	Undeveloped Units/Acres	Historic Fire/EMS Calls per Unit/Acre	Future Private Fire/EMS Calls per Land Use
<b>Residential/Hotel</b>			
Single-Family (SFDU)	15,860	0.075	1,182
Multi-Family (MFDU)	3,808	0.029	109
Hotel/Motel (Rooms)	302	0.035	11
<b>Total Units</b>	<b>19,970</b>		<b>1,302</b>
<b>Business/Institutional</b>			
School (Acres)	229	0.188	43
Nursing Home (Acres)	10	8.944	91
Church (Acres)	271	0.049	13
Office (Acres)	491	0.179	88
Light Industrial (Acres)	159	0.894	142
Commercial (Acres)	466	0.183	85
<b>Total Private Land Acreage</b>	<b>1,626</b>		<b>463</b>
<b>Total Additional Fire/EMS Calls to Private Land Uses<sup>1</sup></b>			<b>1,765</b>

1- Calls reflect only responses to private land uses. Public land and roadway responses have been excluded.

**Table C.2.2 Total Future Fire Calls to Public Land Uses**

Fire Calls	2003	% of Total
To Private Land Uses	966	58.51%
To Public Land Uses	685	41.49%
<b>Total Fire Calls</b>	<b>1,651</b>	<b>100.00%</b>

**Table C.2.5 Total Future Police Calls to Private Land Uses**

Zone	Undeveloped Units/Acres	Historic Police Calls per Unit/Acre	Future Private Police Calls per Land Use
<b>Residential/Hotel</b>			
Residential	19,668	0.326	6,411
Hotel/Motel (Rooms)	302	0.559	169
<b>Total Units</b>	<b>19,970</b>		<b>6,579</b>
<b>Business/Institutional</b>			
School (Acres)	229	2.938	674
Nursing Home (Acres)	10	1.071	11
Church (Acres)	271	1.070	290
Office (Acres)	491	2.409	1,182
Light Industrial (Acres)	159	0.125	20
Commercial (Acres)	466	4.052	1,887
<b>Total Private Land Acreage</b>	<b>1,626</b>		<b>4,064</b>
<b>Total Additional Police Calls to Private Land Uses<sup>1</sup></b>			<b>10,643</b>

1- Calls reflect only responses to private land uses. Public land and roadway responses have been excluded.

**Table C.2.6 Total Future Police Calls to Public Land Uses**

Police Calls	2003	% of Total
To Private Land Uses	4,268	18.80%
To Public Land Uses	18,433	81.20%
<b>Total Police Calls</b>	<b>22,701</b>	<b>100.00%</b>

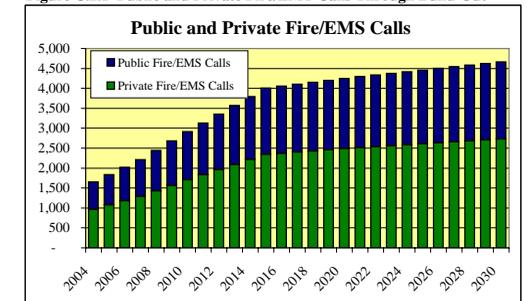
**Table C.2.3 Total Fire Calls Through Build-Out**

Year	Population	Total Calls	Total Cumulative Calls	Annual % Increase
2004	41,954	1,651	-	-
2005	45,468	1,837	186	11.27%
2006	48,981	2,023	372	10.13%
2007	52,495	2,209	558	9.20%
2008	56,941	2,445	794	10.66%
2009	61,388	2,681	1,030	9.63%
2010	65,834	2,916	1,265	8.79%
2011	69,958	3,135	1,484	7.49%
2012	74,083	3,353	1,702	6.97%
2013	78,207	3,572	1,921	6.52%
2014	82,332	3,790	2,139	6.12%
2015	86,456	4,009	2,358	5.77%
2016	87,376	4,057	2,406	1.22%
2017	88,296	4,106	2,455	1.20%
2018	89,215	4,155	2,504	1.19%
2019	90,135	4,204	2,553	1.17%
2020	91,055	4,252	2,601	1.16%
2021	91,838	4,294	2,643	0.98%
2022	92,621	4,335	2,684	0.97%
2023	93,403	4,377	2,726	0.96%
2024	94,186	4,418	2,767	0.95%
2025	94,969	4,460	2,809	0.94%
2026	95,752	4,501	2,850	0.93%
2027	96,535	4,543	2,892	0.92%
2028	97,317	4,584	2,933	0.91%
2029	98,100	4,626	2,975	0.90%
2030	98,883	4,667	3,016	0.90%
		3,016	1,365	

**Table C.2.4 Private Fire Calls Through Build-Out**

Year	Population	Total Public Calls	Total Private Calls	Private Cumulative Calls	Annual % Increase
2004	41,954	685	966	-	-
2005	45,468	762	1,075	109	11.27%
2006	48,981	839	1,184	218	10.13%
2007	52,495	917	1,293	327	9.20%
2008	56,941	1,014	1,431	465	10.66%
2009	61,388	1,112	1,568	602	9.63%
2010	65,834	1,210	1,706	740	8.79%
2011	69,958	1,301	1,834	868	7.49%
2012	74,083	1,391	1,962	996	6.97%
2013	78,207	1,482	2,090	1,124	6.52%
2014	82,332	1,573	2,218	1,252	6.12%
2015	86,456	1,663	2,345	1,379	5.77%
2016	87,376	1,683	2,374	1,408	1.22%
2017	88,296	1,704	2,402	1,436	1.20%
2018	89,215	1,724	2,431	1,465	1.19%
2019	90,135	1,744	2,460	1,494	1.17%
2020	91,055	1,764	2,488	1,522	1.16%
2021	91,838	1,781	2,512	1,546	0.98%
2022	92,621	1,799	2,537	1,571	0.97%
2023	93,403	1,816	2,561	1,595	0.96%
2024	94,186	1,833	2,585	1,619	0.95%
2025	94,969	1,850	2,609	1,643	0.94%
2026	95,752	1,868	2,634	1,668	0.93%
2027	96,535	1,885	2,658	1,692	0.92%
2028	97,317	1,902	2,682	1,716	0.91%
2029	98,100	1,919	2,706	1,740	0.90%
2030	98,883	1,936	2,731	1,765	0.90%
		1,251.3477	1,765		

**Figure C.2.1 Public and Private Fire/EMT Calls Through Build-Out**



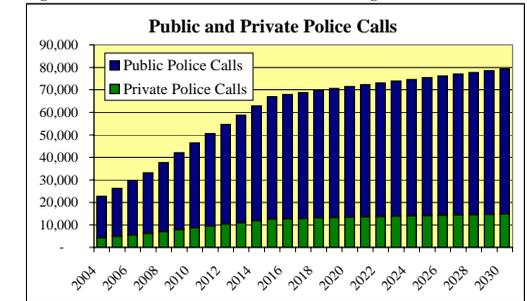
**Table C.2.7 Total Police Calls Through Build-Out**

Year	Population	Total Calls	Cumulative Calls	Annual % Increase
2004	41,954	22,701	-	-
2005	45,468	26,195	3,494	15.39%
2006	48,981	29,689	3,494	13.34%
2007	52,495	33,183	3,494	11.77%
2008	56,941	37,604	4,421	13.32%
2009	61,388	42,025	4,421	11.76%
2010	65,834	46,446	4,421	10.52%
2011	69,958	50,547	4,101	8.83%
2012	74,083	54,648	4,101	8.11%
2013	78,207	58,750	4,101	7.50%
2014	82,332	62,851	4,101	6.98%
2015	86,456	66,952	4,101	6.53%
2016	87,376	67,866	915	1.37%
2017	88,296	68,781	915	1.35%
2018	89,215	69,696	915	1.33%
2019	90,135	70,610	915	1.31%
2020	91,055	71,525	915	1.30%
2021	91,838	72,303	778	1.09%
2022	92,621	73,082	778	1.08%
2023	93,403	73,860	778	1.07%
2024	94,186	74,638	778	1.05%
2025	94,969	75,417	778	1.04%
2026	95,752	76,195	778	1.03%
2027	96,535	76,974	778	1.02%
2028	97,317	77,752	778	1.01%
2029	98,100	78,530	778	1.00%
2030	98,883	79,309	778	0.99%

**Table C.2.8 Private Police Calls Through Build-Out**

Year	Population	Total Public Calls	Total Private Calls	Private Cumulative Calls	Annual % Increase
2004	41,954	18,433	4,268	-	-
2005	45,468	21,270	4,925	657	15.39%
2006	48,981	24,107	5,582	1,314	13.34%
2007	52,495	26,943	6,239	1,971	11.77%
2008	56,941	30,533	7,070	2,802	13.32%
2009	61,388	34,123	7,902	3,633	11.76%
2010	65,834	37,713	8,733	4,465	10.52%
2011	69,958	41,043	9,504	5,236	8.83%
2012	74,083	44,373	10,275	6,007	8.11%
2013	78,207	47,703	11,046	6,778	7.50%
2014	82,332	51,033	11,817	7,549	6.98%
2015	86,456	54,363	12,588	8,320	6.53%
2016	87,376	55,106	12,760	8,492	1.37%
2017	88,296	55,849	12,932	8,664	1.35%
2018	89,215	56,591	13,104	8,836	1.33%
2019	90,135	57,334	13,276	9,008	1.31%
2020	91,055	58,077	13,448	9,180	1.30%
2021	91,838	58,709	13,595	9,326	1.09%
2022	92,621	59,341	13,741	9,473	1.08%
2023	93,403	59,973	13,887	9,619	1.07%
2024	94,186	60,605	14,034	9,765	1.05%
2025	94,969	61,237	14,180	9,912	1.04%
2026	95,752	61,869	14,326	10,058	1.03%
2027	96,535	62,501	14,473	10,204	1.02%
2028	97,317	63,133	14,619	10,351	1.01%
2029	98,100	63,765	14,765	10,497	1.00%
2030	98,883	64,397	14,912	10,643	0.99%

**Figure C.2.2 Public and Private Police Calls Through Build-Out**





# ENCLOSURE D.2: FIRE STAFFING STANDARDS

**Table D.2.1 Fire Administration and Auxiliary Staffing**

	Current Standards (per 1,000)	Current Persons	Build-Out Needs
<b>Firefighters</b>			
Firefighters	0.81041	34.0	81
<b>Administrative</b>			
Chiefs <sup>1</sup>	0.02384	1.0	1
Lieutenant/Deputy Chiefs <sup>1</sup>	0.02384	1.0	1
Fire Marshalls <sup>1</sup>	0.02384	1.0	1
Batallion Chiefs	0.02384	1.0	3
Fire Captains <sup>2</sup>	0.04767	2.0	4
<b>Clerical/Staff</b>			
Secretary/Clerical	0.03575	1.5	4

1- To remain constant at one per fire department  
 2- One fire captain per station

**Table D.2.2 Current Fire/EMT Vehicle Inventory**

	Station 61	Station 62	Totals
Fire Engine/Pumper	1	1	2
Water Tender	1	-	1
Ladder Truck	1	-	1
Ambulance/Rescue	1	2	3
Utility Vehicle	1	-	1
Heavy Rescue Unit	-	-	-
Auxiliary/Grassfire	-	1	1
Hazardous Materials Units	-	-	-
<b>TOTALS:</b>	<b>5</b>	<b>4</b>	<b>9</b>

**Table D.2.3 Future Fire/EMT Vehicle Needs**

	Station 63 Daybreak 2007	Station 64 River Parkway 2010	Totals
Fire Engine/Pumper	-	1	1
Water Tender	-	1	1
Ladder Truck	-	-	-
Ambulance/Rescue	2	1	3
Utility Vehicle	-	-	-
Heavy Rescue Unit	1	-	1
Auxiliary/Grassfire	-	1	1
Hazardous Materials Units	-	-	-
<b>TOTALS:</b>	<b>3</b>	<b>4</b>	<b>7</b>

**Table D.2.4 Growth in Fire Department Staffing**

Year <sup>1</sup>	Population	Firefighters <sup>2</sup>	Administrative				Clerical	Total Admin/Clerical	Total Staffing
			Chiefs	Lt./Deputy Chiefs	Fire Marshalls	Batallion Chiefs			
2004	41,954	34.0	1.0	-	-	2.0	1.5	4.5	38.5
2005	45,468	42.0	1.0	-	-	2.0	1.5	4.5	46.5
2006	48,981	50.0	1.0	-	-	2.0	1.5	4.5	54.5
2007	52,495	57.0	1.0	-	1.0	3.0	2.0	7.0	64.0
2008	56,941	64.0	1.0	-	1.0	3.0	2.0	7.0	71.0
2009	61,388	70.0	1.0	-	1.0	3.0	2.0	7.0	77.0
2010	65,834	78.0	1.0	1.0	1.0	3.0	3.0	9.0	87.0
2011	69,958	78.0	1.0	1.0	1.0	3.0	3.0	9.0	87.0
2012	74,083	78.0	1.0	1.0	1.0	3.0	3.0	9.0	87.0
2013	78,207	78.0	1.0	1.0	1.0	3.0	3.0	9.0	87.0
2014	82,332	78.0	1.0	1.0	1.0	3.0	3.0	9.0	87.0
2015	86,456	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2016	87,376	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2017	88,296	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2018	89,215	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2019	90,135	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2020	91,055	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2021	91,838	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2022	92,621	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2023	93,403	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2024	94,186	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2025	94,969	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2026	95,752	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2027	96,535	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2028	97,317	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2029	98,100	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0
2030	98,883	78.0	1.0	1.0	1.0	3.0	4.0	10.0	88.0

1- Assumes that Station 63 (Daybreak) will be constructed in 2007 and that Station 64 (Riverbottoms) will be constructed in 2010.

2- Includes Fire Captains

Projected staffing prepared with the assistance of the City's Fire Chief

**ENCLOSURE D.3: POLICE STATION FLOOR SPACE STANDARDS**

**Table D.3.1 Floor Space Standards**

Approximate Square Footage:	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Investigations	16	564	596	596	789	886	1,079	1,192	1,305	1,418	1,514	1,627	1,724	1,836	1,852	1,885	1,901	1,933	1,949	1,965	1,997	2,014	2,030	2,046	2,062	2,094	2,110	2,126	2,142	
Large Evidence Area	15	524	554	554	734	824	898	1,003	1,108	1,213	1,318	1,407	1,512	1,602	1,707	1,722	1,752	1,767	1,797	1,812	1,827	1,857	1,872	1,887	1,902	1,917	1,946	1,961	1,976	1,991
Evidence Processing	2	73	77	77	102	114	139	154	169	183	196	210	223	237	239	243	246	250	252	254	258	262	264	266	271	273	275	277	279	
Prisoner Handling	15	524	554	554	734	824	898	1,003	1,108	1,213	1,318	1,407	1,512	1,602	1,707	1,722	1,752	1,767	1,797	1,812	1,827	1,857	1,872	1,887	1,902	1,917	1,946	1,961	1,976	1,991
Garage/Sallyport Area	26	907	959	959	1,270	1,426	1,555	1,737	1,918	2,099	2,281	2,436	2,618	2,773	2,955	2,981	3,033	3,058	3,110	3,136	3,162	3,214	3,240	3,266	3,292	3,318	3,344	3,370	3,447	
Training Room	17	604	638	638	845	948	1,035	1,135	1,236	1,337	1,438	1,537	1,635	1,766	1,865	1,963	2,017	2,035	2,069	2,086	2,138	2,165	2,193	2,207	2,242	2,259	2,276	2,293	2,310	
Records	15	520	550	550	728	818	892	996	1,100	1,204	1,308	1,397	1,501	1,591	1,695	1,799	1,739	1,754	1,784	1,814	1,843	1,888	1,858	1,873	1,892	1,903	1,947	1,962	1,977	1,992
Armory	4	145	153	153	203	227	248	277	306	335	364	389	418	442	471	476	484	488	496	500	504	513	517	521	525	529	538	542	546	550

**Table D.3.2 Previous Police Facilities**

City Hall Station <sup>1</sup>	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Investigations	182	182	596	596	596	596	596	596	596	596	596	596	596	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236
Large Evidence Area	169	169	554	554	554	554	554	554	554	554	554	554	554	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022
Evidence Processing	24	24	77	77	77	77	77	77	77	77	77	77	77	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432
Prisoner Handling	100	100	554	554	554	554	554	554	554	554	554	554	554	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568	2,568
Garage/Sallyport Area	293	293	959	959	959	959	959	959	959	959	959	959	959	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709
Training Room	195	168	550	550	550	550	550	550	550	550	550	550	550	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473
Armory	108	108	208	208	208	208	208	208	208	208	208	208	208	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557
Police Chief Office	37	63	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Detective Office	108	108	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Detective Sergeant Office	144	144	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355	355	355	355	355	355	355	355	355	355	355	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952	952
Patrol Sergeant Office	64	64	355																										

# ENCLOSURE D.4: POLICE STAFFING STANDARDS

A B C D E F G H I J K L M O P Q R T U V W

1  
2 **Table D.4.1 Current Level of Service Standards**

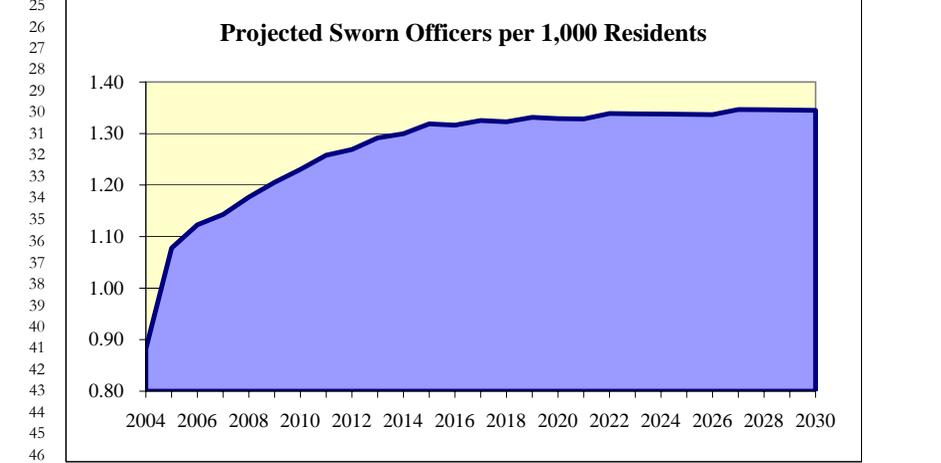
	Estimated Population	Sworn Officers	Offenses Known by Law Enforcement <sup>2</sup>	Offenses per Capita	Offenses per Sworn Officers
2002 Data <sup>1</sup>	34,171	35	857	0.02507999	0.04084014

3  
4  
5 1- Data not available for 2003 and 2004  
6 2- Offenses include murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson.  
7  
8 Source: Federal Bureau of Investigation  
9

10 **Table D.4.2 Police Administration and Auxiliary Staffing**

Position	Current Standards	Current Persons	Build-out Needs
<b>Administrative</b>			
Chiefs	0.0541	2	8
Detectives	0.1081	4	15
Detective Sergeants	0.0270	1	4
School Resource Officer	0.0811	3	11
Patrol Sergeants	0.1622	6	22
Batallion Chiefs	0.0541	2	8
<b>Clerical/Staff</b>			
Secretary/Clerical	0.1051	4	14

23 **Figure D.4.1 Projected Number of Sworn Officers per 1,000 Residents**



A B C D E F G H I J K L M O P Q R T U V W

1  
2 **Table D.4.3 Projected Total Staffing**

Year	Projected Population	Sworn Officers	Chiefs	Detectives	Detective Sergeants	Patrol Sergeants	Batallion Chiefs	Secretary/Clerical	Total Staffing	Officers per 1,000			
										Residents	Offenses	Offenses per Capita	Offenses per Sworn Officer
1999	27,671	22	2	4	1	6	2	3.5	41	0.80	569	0.02057477	25.87818182
2000	29,437	26	2	4	1	6	2	3.5	45	0.88	662	0.02248870	25.46153846
2001	30,794	31	2	4	1	6	2	3.5	50	1.01	760	0.02466390	24.50000000
2002	34,171	35	2	4	1	6	2	3.5	54	1.02	857	0.02507999	24.48571429
2003	37,547	37	2	4	1	6	2	3.5	56	0.99	1,023	0.02723612	27.63902167
2004	41,954	37	2	4	1	6	2	3.9	56	0.88	1,217	0.02901789	32.90315448
2005	45,468	49	2	4	1	6	2	4.3	68	1.08	1,373	0.03019111	28.08863576
2006	48,981	55	2	4	1	6	2	4.7	75	1.12	1,528	0.03119601	28.08863576
2007	52,495	60	2	4	1	6	2	5.1	80	1.14	1,683	0.03206638	28.08863576
2008	56,941	67	2	4	1	6	2	5.4	87	1.18	1,880	0.03301382	28.08863576
2009	61,388	74	2	4	1	6	2	5.8	95	1.21	2,076	0.03382401	28.08863576
2010	65,834	81	2	5	2	8	3	6.2	107	1.23	2,273	0.03452476	28.08863576
2011	69,958	88	2	5	2	8	3	6.6	115	1.26	2,455	0.03509514	28.08863576
2012	74,083	94	2	5	2	8	3	7.0	121	1.27	2,637	0.03560201	28.08863576
2013	78,207	101	2	5	2	8	3	7.4	128	1.29	2,820	0.03605542	28.08863576
2014	82,332	107	2	5	2	8	3	7.8	135	1.30	3,002	0.03646341	28.08863576
2015	86,456	114	2	5	2	8	3	8.2	142	1.32	3,184	0.03683246	28.08863576
2016	87,376	115	2	5	2	8	3	8.6	144	1.32	3,225	0.03691002	28.08863576
2017	88,296	117	2	5	2	8	3	8.9	146	1.33	3,266	0.03698595	28.08863576
2018	89,215	118	2	5	2	8	3	9.3	147	1.32	3,306	0.03706033	28.08863576
2019	90,135	120	2	5	2	8	3	9.7	150	1.33	3,347	0.03713318	28.08863576
2020	91,055	121	2	6	3	10	4	10.1	156	1.33	3,388	0.03720456	28.08863576
2021	91,838	122	2	6	3	10	4	10.5	158	1.33	3,422	0.03726419	28.08863576
2022	92,621	124	2	6	3	10	4	10.9	160	1.34	3,457	0.03732280	28.08863576
2023	93,403	125	2	6	3	10	4	11.3	161	1.34	3,491	0.03738044	28.08863576
2024	94,186	126	2	6	3	10	4	11.7	163	1.34	3,526	0.03743711	28.08863576
2025	94,969	127	2	6	3	10	4	12.1	164	1.34	3,561	0.03749285	28.08863576
2026	95,752	128	2	6	3	10	4	12.4	165	1.34	3,595	0.03754768	28.08863576
2027	96,535	130	2	6	3	10	4	12.8	168	1.35	3,630	0.03760162	28.08863576
2028	97,317	131	2	6	3	10	4	13.2	169	1.35	3,664	0.03765469	28.08863576
2029	98,100	132	2	6	3	10	4	13.6	171	1.35	3,699	0.03770692	28.08863576
2030	98,883	133	2	6	3	10	4	14.0	172	1.35	3,734	0.03775832	28.08863576

38 - Unlike fire protection services where demand for a new facility can be instantaneous once growth exceeds response times, the need for additional police services is more closely linked to population growth. As the City's population continues to increase, the City's population density rises. The number of felonies committed per capita will subsequently increase as urban areas statistically report a higher number of felonies. Therefore, the number of sworn officers per 1,000 residents will gradually increase as the City becomes more urban. The projected number of felonies, as shown in Table D.4.4, have been calculated using historical data from the FBI's Crime Index and increasing this data by a linear trend in growth.

A B C D E F G H I J K L M O P Q R T U V W

# ENCLOSURE E.1: PUBLIC SAFETY/ OVERLAPPING ADMINISTRATION CAPITAL EXPENSES

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**Table E.1.1 Future Fire and Police Capital Projects**

Description	Construction Year	Facility Floor Space			Land Area		Parking Area				Totals				
		Total Square Footage	Cost per Square Foot	Total Building Cost	Total Acreage	Cost per Acre	Total Land Cost	Total Parking Coverage	Total Square Footage	Surfacing Cost per Square Foot	Total Parking Area Costs	Total Costs	Construction Year Costs @ 5% Inflation	% Attributable to Fire/EMS	% Attributable to Police
Fire Station 63 - Construction and Land Purchase	2007	10,535	\$ 150	\$ 1,580,233	1.25	\$ 150,000	\$ 187,500	80%	33,025	\$ 8.00	\$ 264,201	\$ 2,031,934	\$ 2,352,217	\$ 2,352,217	\$ -
Fire Station 64 - Construction and Land Purchase	2010	8,204	150	1,230,558	1.25	150,000	187,500	80%	35,356	8.00	282,850	1,700,908	2,279,380	2,279,380	-
Satellite City Office/ Police Offices	2015	30,000	150	4,500,000	2.00	150,000	300,000	80%	39,696	8.00	317,568	5,117,568	8,752,778	-	4,612,026
<b>Totals</b>		<b>48,739</b>		<b>\$ 7,310,791</b>			<b>\$ 675,000</b>				<b>\$ 864,619</b>	<b>\$ 8,850,410</b>	<b>\$ 13,384,375</b>	<b>\$ 4,631,597</b>	<b>\$ 4,612,026</b>

**Table E.1.2 Existing Fire and Police Capital Projects**

Description	Construction Year	Facility Floor Space						Land				Totals							
		Total Square Feet	Fire/EMS Use (Square Feet)	Police Use (Square Feet)	Other Uses (Square Feet)	Current Replacement Value	Costs to Fire/EMS Impact Fees	Costs to Police Impact Fees	Costs Funded by Other Revenues	Total Acreage	Cost per Acre	Total Land Value	Total Land Cost Attributable to Fire/EMS	Total Land Cost Attributable to Police	Total Land Costs Attributable to Other	Total Current Year Costs	Total Costs to Fire/EMS Impact Fees	Total Costs to Police Impact Fees	Total Costs to Other Revenues
Fire Station 61	1996	8,286	8,286	-	-	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	1.00	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ 1,650,000	\$ 1,650,000	\$ -	\$ -
Fire Station 62	2001	9,539	9,539	-	-	1,500,000	1,500,000	-	-	1.00	150,000	150,000	150,000	-	-	1,650,000	1,650,000	-	-
Police Storage (City Yard)	1999	816	-	816	-	54,823	-	54,823	-	-	-	-	-	-	-	-	-	54,823	-
City Hall (Headquarters)	2001	50,000	1,507	9,974	38,519	7,160,000	215,802	1,428,262	5,515,935	-	-	-	-	-	-	7,160,000	215,802	1,428,262	5,515,935
<b>Totals</b>		<b>68,641</b>	<b>19,332</b>	<b>10,790</b>	<b>38,519</b>	<b>\$ 10,214,823</b>	<b>\$ 3,215,802</b>	<b>\$ 1,483,085</b>	<b>\$ 5,515,935</b>			<b>\$ 300,000</b>	<b>\$ 300,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,514,823</b>	<b>\$ 3,515,802</b>	<b>\$ 1,483,085</b>	<b>\$ 5,515,935</b>

A B C D E F G H I J K L M N O P Q R S T

# ENCLOSURE E.2: OUTSTANDING AND PROPOSED SALES TAX REVENUE BONDS

A B C D E F G H I J K L M N O P

**Table E.2.1 Outstanding Sales Tax Revenue Bonds: Series 2001 Sales Tax Revenue Bonds**

\$7,160,000.00	
CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH	
Sales Tax Revenue Bond (City Hall)	
Series December 18, 2001	
<b>TOTAL SOURCES &amp; USES</b>	
Dated 09/10/2003 Delivered 09/10/2003	
<b>SOURCES OF FUNDS</b>	
Par Amount of Bonds.....	\$7,160,000.00
Reoffering Premium.....	5,257.90
BWR Grant for Interest Rate Buy Down.....	16,571.46
<b>TOTAL SOURCES</b>	<b>\$7,181,829.36</b>
<b>USES OF FUNDS</b>	
Deposit to Project Construction Fund.....	37,590.00
Costs of Issuance.....	69,977.07
Total Underwriter's Discount (0.700%).....	40,248.28
Gross Bond Insurance Premium ( 28.5 bp).....	16,571.46
Surety for Reserve Fund.....	7,007,666.71
<b>Surety Premium Amount (Ambac).....</b>	<b>10,394.41</b>
Rounding Amount.....	(618.57)
<b>TOTAL USES.....</b>	<b>\$7,181,829.36</b>

\$7,160,000.00				
CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH				
Sales Tax Revenue Bond (City Hall)				
Series December 18, 2001				
<b>OUTSTANDING NET DEBT SERVICE SCHEDULE</b>				
Including 15% Reduction for Furniture Expense*				
Date	Principal	Coupon	Interest	Total P+I
2004	148,399.91	3.500%	282,829.03	431,228.94
2005	148,399.91	4.000%	277,635.03	426,034.94
2006	156,879.91	4.000%	271,699.04	428,578.94
2007	161,119.90	4.000%	265,423.84	426,543.74
2008	169,599.90	4.150%	258,979.04	428,578.94
2009	178,079.89	4.300%	251,940.65	430,020.54
2010	182,319.89	4.400%	244,283.21	428,603.10
2011	190,799.89	4.500%	236,261.14	427,061.02
2012	199,279.88	5.000%	227,675.14	426,955.02
2013	211,999.87	5.000%	217,711.15	429,711.02
2014	220,479.87	5.000%	207,111.16	427,591.02
2015	228,959.86	5.000%	196,087.16	425,047.02
2016	241,679.85	5.500%	184,639.17	426,319.02
2017	258,639.84	5.500%	171,346.78	429,986.62
2018	267,119.84	5.500%	157,121.59	424,241.42
2019	284,079.83	5.200%	142,429.99	426,509.82
2020	301,039.82	5.200%	127,657.84	428,697.66
2021	317,999.81	5.200%	112,003.77	430,003.58
2022	330,719.80	5.200%	95,467.78	426,187.58
2023	347,679.79	5.200%	78,270.35	425,950.14
2024	364,639.78	5.200%	60,191.00	424,830.78
2025	385,839.77	5.200%	41,229.74	427,069.50
2026	407,039.76	5.200%	21,166.07	428,205.82
<b>Total</b>	<b>\$ 5,702,797</b>		<b>\$ 4,129,160</b>	<b>\$ 9,831,956</b>

**Table E.2.2 Credit For Bond Financed Non-Permanent Fixtures and Furniture**

Total City Hall Expense, Including Issuance Costs	\$ 7,160,000
Furniture Costs Removed From Building Expense	1,088,324
<b>Uniform Reduction in Debt Service</b>	<b>15%</b>
Adjusted Proceeds	<b>\$ 6,071,676.35</b>

**Table E.2.3 Proposed Sales Tax Revenue Bonds: Series 2015 Sales Tax Revenue Bonds**

\$7,774,000.00	
CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH	
Sales Tax Revenue Bond (Satellite City Administration/Police Offices)	
Series 2015	
<b>NET DEBT SERVICE SCHEDULE</b>	
Dated 01/01/2011 Delivered 01/01/2011	
<b>SOURCES OF FUNDS</b>	
Par Amount of Bonds.....	\$7,774,000.00
<b>TOTAL SOURCES.....</b>	<b>\$7,774,000.00</b>
<b>USES OF FUNDS</b>	
Total Underwriter's Discount (5.000%)	388,700.00
Costs of Issuance	194,350.00
Gross Bond Insurance Premium ( 40.0 bp)	43,277.55
Deposit to Project Construction Fund	7,147,139.00
Rounding Amount	533.45
<b>TOTAL USES</b>	<b>7,774,000.00</b>

\$7,774,000.00				
CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH				
Sales Tax Revenue Bond (Satellite City Administration/Police Offices)				
Series 2015				
<b>NET DEBT SERVICE SCHEDULE</b>				
Date	Principal	Coupon	Interest	Total P+I
2016	\$ 406,000.00	1.77%	\$ 315,754.50	\$ 721,754.50
2017	413,000.00	2.34%	308,568.30	721,568.30
2018	422,000.00	2.80%	298,904.10	720,904.10
2019	434,000.00	3.22%	287,088.10	721,088.10
2020	448,000.00	3.56%	273,113.30	721,113.30
2021	464,000.00	3.81%	257,164.50	721,164.50
2022	482,000.00	4.05%	239,486.10	721,486.10
2023	501,000.00	4.27%	219,965.10	720,965.10
2024	523,000.00	4.41%	198,572.40	721,572.40
2025	546,000.00	4.53%	175,508.10	721,508.10
2026	571,000.00	4.64%	150,774.30	721,774.30
2027	597,000.00	4.72%	124,279.90	721,279.90
2028	625,000.00	4.80%	96,101.50	721,101.50
2029	655,000.00	4.90%	66,101.50	721,101.50
2030	687,000.00	4.95%	34,006.50	721,006.50
<b>Total</b>	<b>\$ 7,774,000.00</b>		<b>\$ 3,045,388.20</b>	<b>\$ 10,819,388.20</b>

A B C D E F G H I J K L M N O P

# ENCLOSURE F: PROPORTIONATE SHARE ANALYSIS

**Table F.1 Existing and Projected Fire/EMT Calls**

User Category	Existing & Projected Calls	% of Total Call Volume
Future Users	1,764.67	64.62%
Existing Users	966.00	35.38%
<b>TOTALS:</b>	<b>2,730.67</b>	

**Table F.2 Proportionate Share of Fire/EMT Facilities**

Facility	Total Square Feet	Future Users 64.62%	Existing Users 35.38%
<b>Future Facilities</b>			
Station 63	10,535	6,808	3,727
Station 64	8,204	5,302	2,902
<b>Total</b>	<b>18,739</b>	<b>12,110</b>	<b>6,629</b>
<b>Existing Facilities</b>			
Station 61	8,286	5,355	2,931
Station 62	9,539	6,164	3,375
City Hall	1,507	974	533
<b>Total</b>	<b>19,332</b>	<b>12,493</b>	<b>6,839</b>
<b>Grand Total</b>	<b>38,071</b>	<b>24,603</b>	<b>13,468</b>

**Table F.3 Existing Fire/EMT Facilities**

Facility	2004 Costs	Bond Financing Costs	Total Costs
Station 61	\$ 1,650,000	\$ -	\$ 1,650,000
Station 62	1,650,000	-	1,650,000
City Hall	171,882	124,453	296,335
<b>TOTALS:</b>	<b>\$ 3,471,882</b>	<b>\$ 124,453</b>	<b>\$ 3,596,335</b>

**Table F.4 Future Fire Facilities**

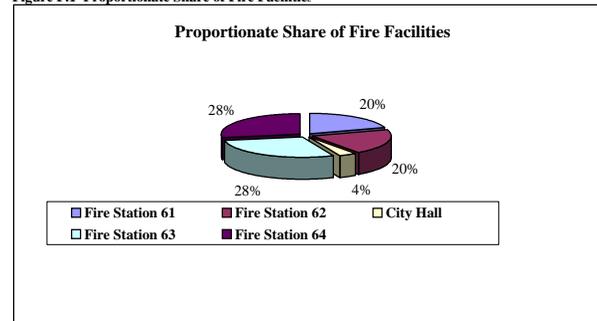
Facility	Construction Year Costs (CYC)	Bond Financing Costs	CYC + Financing
Station 63	\$ 2,352,217	-	\$ 2,352,217
Station 64	2,279,380	-	2,279,380
<b>TOTALS:</b>	<b>\$ 4,631,597</b>	<b>\$ -</b>	<b>\$ 4,631,597</b>

**Table F.5 Existing and Future Fire Facilities**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
Fire Station 61	\$ 1,650,000	64.62%	\$ 1,066,298
Fire Station 62	1,650,000	64.62%	1,066,298
City Hall	296,335	64.62%	191,504
Fire Station 63	2,352,217	64.62%	1,520,100
Fire Station 64	2,279,380	64.62%	1,473,029
<b>TOTALS:</b>	<b>\$ 8,227,932</b>		<b>\$ 5,317,229</b>

**Cost per Call = \$ 3,013.15**

**Figure F.1 Proportionate Share of Fire Facilities**



**Table F.6 Existing and Projected Police Calls**

User Category	Existing & Projected Calls	% of Total Call Volume
Future Users	10,643.47	71.38%
Existing Users	4,268.28	28.62%
<b>TOTALS:</b>	<b>14,911.76</b>	

**Table F.7 Proportionate Share of Police Facilities**

Facility	Total Square Feet	Future Users 71.38%	Existing Users 28.62%
<b>Future Facilities</b>			
Satellite Station	15,808	11,283	4,525
<b>Total</b>	<b>15,808</b>	<b>11,283</b>	<b>4,525</b>
<b>Existing Facilities</b>			
City Yard	816	582	234
City Hall	9,974	7,119	2,855
<b>Total</b>	<b>10,790</b>	<b>7,701</b>	<b>3,088</b>
<b>Grand Total</b>	<b>26,598</b>	<b>18,984</b>	<b>7,613</b>

**Table F.8 Existing Police Facilities**

Facility	2004 Costs	Bond Financing Costs	DRC + Financing
City Yard	\$ 54,823	\$ -	\$ 54,823
City Hall	1,137,582	823,677	1,961,259
<b>TOTALS:</b>	<b>\$ 1,192,405</b>	<b>\$ 823,677</b>	<b>\$ 2,016,082</b>

**Table F.9 Future Police Facilities**

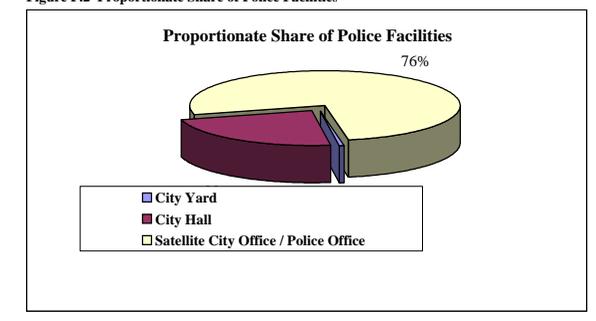
Facility	Construction Year Costs (CYC)	Bond Financing Costs	DRC + Financing
Satellite City Office / Police Office	\$ 4,612,026	\$ 1,934,705	\$ 6,546,731
<b>TOTALS:</b>	<b>\$ 4,612,026</b>	<b>\$ 1,934,705</b>	<b>\$ 6,546,731</b>

**Table F.10 Existing and Future Police Facilities**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
City Yard	\$ 54,823	71.38%	\$ 39,131
City Hall	1,961,259	71.38%	1,399,876
Satellite City Office / Police Office	6,546,731	71.38%	4,672,821
<b>TOTALS:</b>	<b>\$ 8,562,813</b>		<b>\$ 6,111,827</b>

**Cost per Call = \$ 574.23**

**Figure F.2 Proportionate Share of Police Facilities**



*Final Adopted Version*



***PUBLIC SAFETY IMPACT FEE ANALYSIS***  
***FIRE PROTECTION AND POLICE SERVICES***

***FOR***

***CITY OF SOUTH JORDAN***  
***SALT LAKE COUNTY, UTAH***

**Submitted by:**

**LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.**



# CITY OF SOUTH JORDAN, SALT LAKE COUNTY, UTAH

## PUBLIC SAFETY IMPACT FEE ANALYSIS

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## EXECUTIVE SUMMARY

*REQUIRED BY (11-36-201(5)(c))*

The City of South Jordan (the “City”) has commissioned the Public Safety Impact Fee Analysis to revise and update the City’s previous City-Wide Impact Fee Analysis prepared in 2001 by Revenue Cost Specialists (“RCS”). The City’s public safety services include fire and police protection. The impact fees proposed in the written Public Safety Impact Analysis are calculated based upon the costs of constructing new public safety capital infrastructure and the costs of financing these improvements. The costs of equipment, vehicles, personal equipment, and any other capital items with useful lives of less than ten years may not be included in the impact fees and have been eliminated from the impact fee calculations. These items must be funded by another source of revenues including property tax revenues, sales tax revenues, grants, or loans. The fees proposed in this written analysis represent the maximum impact fees that the City may assess to new development. The impact fees proposed in this analysis will be assessed throughout the City-Wide Public Safety Service Area (the “Service Area”) which includes South Jordan proper and the Daybreak Development (“Daybreak”).

To ensure sufficient and proper funding, the City has retained Lewis Young Robertson & Burningham, Inc. (“LYRB”) to evaluate and calculate the maximum equitable impact fee that the City may assess to distinct land uses within the City. Each land-use category will be evaluated based upon the number of projected calls that create demand on both fire/EMS and police public facilities.

The recommended impact fee structure presented in this analysis has been prepared to satisfy Utah State Code Title 11, Chapter 36, Sections 1-5 referred to in short-title as the Impact Fees Act. Although the maximum impact fees are structured to provide sufficient impact fee revenues to fund the portion of public safety capital improvements that are necessitated by new growth, the City will be required to use other revenue sources to fund projects that constitute repair and replacement or to maintain the existing level of service for current users.

### ***CALCULATION OF THE NET IMPACT FEE***

The combined service provided by all recommended projects presented in this analysis is assumed to be sufficient to serve the City at a full build-out scenario of both South Jordan City and Daybreak. The City currently serves a total of 1,651 fire/EMS calls and 22,701 police calls. It is projected that the new growth and development within the City and Daybreak will add approximately 3,016 fire/EMS calls and 56,608 police calls over the next 25-30 years. These call projections include fire/EMS and police responses to all land uses, including public land uses such as parks, government buildings, roadways, etc. and private residential, institutional, commercial and industrial land uses.

**Calls used in the calculation of the public safety impact fees exclude all calls to public and non-private land uses. The call projections used in this impact fee**



**analysis are significantly lower than the actual volume of fire/EMS and police calls. The calls not associated with private land uses will be absorbed by the City's general fund.**

The Impact Fees Act specifically prohibits the use of impact fees to cure existing deficiencies in infrastructure or to construct infrastructure that provides a level of service per user that is higher than the existing level of service<sup>1</sup>. Furthermore, impact fees cannot be used to maintain a level of service for current system users through the funding of repair and replacement for existing and future facilities. The historic and projected level of service for fire/EMS and police services is based upon primary and secondary response times for differing classes of fire/EMS and police calls.

**FIGURE 1: CALCULATION OF FIRE/EMS PROTECTION IMPACT FEE**

<b>Fire/EMS Projects</b>	<b>Total Costs</b>	<b>Future Private Fire/EMS Calls</b>	<b>Cost per Fire/EMS Call</b>
<b><i>Total Capital Projects Fee</i></b>			
Future Capital Projects <sup>1</sup>	\$ 2,993,128.82	1,765	\$ 1,696.14
<b><i>Total Capital Projects Fee</i></b>	<b>\$ 2,993,128.82</b>		<b>\$ 1,696.14</b>
<b><i>Miscellaneous Fee</i></b>			
Impact Fee Analysis Update	\$ 109,281.02	1,765	\$ 61.93
Stabilization Fee	(993,111.94)	1,765	(562.77)
<b><i>Miscellaneous Fee</i></b>	<b>\$ (883,830.92)</b>		<b>\$ (500.85)</b>
<b><i>Total System Impact Fee</i></b>	<b>\$ 2,109,297.90</b>		<b>\$ 1,195.29</b>
<b><i>Total Buy-In Fee</i></b>			
Series 2001 Debt Service	\$ 191,503.99	1,765	\$ 108.52
Station 61 Reimbursement <sup>1</sup>	1,066,298.00	1,765	604.25
Station 62 Reimbursement <sup>1</sup>	1,066,298.00	1,765	604.25
<b><i>Total Buy-In Fee</i></b>	<b>\$ 2,324,100.00</b>		<b>\$ 1,317.01</b>
<b>Total Impact Fee Cost per Call</b>			<b>\$ 2,512.30</b>

<sup>1</sup> Includes 3% interest paid to General Fund for inter-fund loan

<sup>1</sup> 11-36-202(4)



**FIGURE 2: CALCULATION OF POLICE PROTECTION IMPACT FEE**

Police Projects	Total Costs	Future Private Police Calls	Cost per Police Call
<b>Total Capital Projects Fee</b>			
Future Capital Projects	\$ 3,291,897.63	10,643	\$ 309.29
Series 2015 Debt Service	4,069,144.51	10,643	382.31
Series 2015 Bond Proceeds	(3,291,897.63)	10,643	(309.29)
<b>Total Capital Projects Fee</b>	<b>\$ 4,069,144.51</b>		<b>\$ 382.31</b>
<b>Miscellaneous Fee</b>			
Impact Fee Analysis Update	\$ 109,281.02	10,643	\$ 10.27
Stabilization Fee	(1,171,239.56)	10,643	(110.04)
<b>Miscellaneous Fee</b>	<b>\$ (1,061,958.54)</b>		<b>\$ (99.78)</b>
<b>Total System Impact Fee</b>	<b>\$ 3,007,185.96</b>		<b>\$ 282.54</b>
<b>Total Buy-In Fee</b>			
Series 2001 Debt Service	\$ 1,399,875.96	10,643	\$ 131.52
City Yard Reimbursement	39,130.68	10,643	3.68
<b>Total Buy-In Fee</b>	<b>\$ 1,439,006.64</b>		<b>\$ 135.20</b>

**Total Impact Fee Cost per Call** **\$ 417.74**

**FIGURE 3: COMBINED PUBLIC SAFETY IMPACT FEE ALLOCATION BY LAND USE**

Zone	Combined Public Safety Impact Fee per Unit/Acre	Floorspace per Acre (Sf)	Combined Public Safety Impact Fee per Unit/1K Sf
<b>Residential/Hotel</b>			<b>per Unit</b>
Single Family Residential (Dwelling)	\$ 323.45	-	\$ 323.45
Multi Family Residential (Dwelling)	207.79	-	\$ 207.79
Hotel/Motel (Rooms)	322.22	-	\$ 322.22
<b>Business/Institutional</b>			<b>per 1K Sf</b>
School (15% FAR)	\$ 1,700.33	6,534	\$ 260.23
Nursing Home (30% FAR)	22,916.36	13,068	\$ 1,753.62
Church (15% FAR)	570.84	6,534	\$ 87.36
Office (50% FAR)	1,456.60	21,780	\$ 66.88
Light Industrial (47% FAR)	2,298.31	20,473	\$ 112.26
Commercial (27% FAR)	2,151.96	11,761	\$ 182.97

The proposed fees are based upon general demand characteristics and potential fire/EMS and police calls created by each class of land usage. If a land use were proposed that did not correlate with the proposed land uses found in Figure 3, the City reserves the right under the Impact Fees Act (Utah Code 11-36-202(2)(c, d)) to assess an adjusted fee that more closely matches the true impact that the land use will have upon public safety facilities.



This adjustment could result in a higher impact fee if the City determines that a particular user may create a greater impact than what is standard for its land use. The City may also decrease the impact fee if the developer can provide documentation that the proposed impact will be lesser than normal (Utah Code 11-36-202(3)(a)).

**FIGURE 4: CALCULATION OF NON-STANDARD PUBLIC SAFETY IMPACT FEES**

	<b>Cost per Call</b>	<b>*</b>	<b># of Calls Created</b>	<b>=</b>	<b>Impact Fee Assessed</b>
Fire/EMS Impact Fee per Call	\$ 2,512.30	*	Projected Annual Calls	=	Recommended Non-Standard Impact Fee
Police Impact Fee per Call	417.74	*	Projected Annual Calls	=	Recommended Non-Standard Impact Fee

LYRB has performed this analysis using capital project and engineering data, planning analysis and other information provided by the City’s staff, public safety department, and consulting engineers. The accuracy and correctness of this report is contingent upon the accuracy of the data provided to LYRB. This Public Safety Impact Fee Analysis accurately evaluates the capital project needs of the City by calculating the appropriate impact fees required to adequately fund growth-related capital projects. Any deviations or changes in the capital projects or other relevant information provided by the City may cause this analysis to be inaccurate and require modifications.



## CHAPTER 1 OVERVIEW OF IMPACT FEES

Impact fees are controversial fees that have had significant legal consequences on cities and developers within Utah. Impact fees have been debated extensively, and until 1997 there were few stringent legal guidelines that municipalities and special service districts were required to follow when implementing impact fees. The current legislation regarding impact fees is set forth in the Impact Fees Act found in Utah State Code Title 11, Chapter 36, Sections 1-5.

With the passage of the Impact Fees Act, the State of Utah became one of twenty-two states to adopt legislation regulating the imposition of impact fees. This legislation gives certainty to the ability of the City of South Jordan and other local governments to impose equitable and “fair” impact fees on new development.

The Impact Fees Act has been shaped and molded over time by various court cases that have established precedents that have been incorporated into the latest amendments to the Impact Fees Act. Of all the court cases, [Banberry Development Corp. vs. City of South Jordan](#)<sup>2</sup> has likely been the most influential. This case established the requirements of the proportionate share tests and identification of a rational nexus between fees and project costs and capacities.

### ***IMPACT FEES AS A SOURCE OF REVENUE***

An impact fee is distinctly different from a tax, special assessment, building permit fee, hook-up fee, or other reasonable permit or application fees, such as conditional use or subdivision application fees.

Impact fees serve three main purposes: (1) proportionally allocate the costs of future projects to the new development that they will be constructed to serve, (2) allow new customers to purchase equity in the existing system, and (3) perpetuate the historic level of service paid to growth related facilities.

Cities generally cannot pay for all the needed improvements using only revenues generated by property taxes, user fees or other revenue sources. The question raised is whether current residents should be required to pay for new capital facilities serving only new growth, or should the responsibility of paying for these facilities be passed on to new residents and businesses? Although the growth of industry and residences within a city is a positive occurrence for the city as a whole since it ultimately leads to increased user fee revenues and property tax revenues, the incoming entities, not existing residents, must be responsible for improvements that increase capacity.

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<sup>2</sup> 631 P. 2d 899, 903-4 (Utah 1981.)



## ***REQUIRED ELEMENTS FOR THE ADOPTION OF IMPACT FEES***

As mentioned earlier, local governments must pay strict attention to the requirements enumerated in the Impact Fees Act regarding the assessment of impact fees. The following five documents must be prepared and completed before the City can legally commence public notice and adopt the proposed impact fees.

### **(1) CAPITAL FACILITIES PLAN**

The Impact Fees Act requires a city serving a population of 5,000 or greater to prepare a Capital Facilities Plan (“CFP”) in coordination and compliance with the City’s General Plan. The CFP must identify the demands that will be placed upon the current and existing facilities by new development and the means that will be used to meet that need.<sup>3</sup>

### **(2) WRITTEN IMPACT FEE ANALYSIS**

The written impact fee analysis, required under the Impact Fees Act, must identify the impacts placed on the facilities by development activity and how these impacts are reasonably related to the new development. The written impact fee analysis must include a Proportionate Share Analysis, as described below, and must clearly detail all cost components and the methodology used to calculate each impact fee.<sup>4</sup>

### **(3) PROPORTIONATE SHARE ANALYSIS**

The Impact Fees Act requires the written analysis to include a Proportionate Share Analysis which is intended to equitably divide the capacity and costs of each project identified in the CFP between future and existing users relative to the benefit each group will receive from the project. The Proportionate Share Analysis, included in Chapter 5 of this study and in Chapter 8 of the CFP, satisfies this requirement.<sup>5</sup>

### **(4) EXECUTIVE SUMMARY**

The Impact Fees Act requires an Executive Summary of the impact fee analysis to be prepared that clearly and concisely provides a brief overview of the proposed impact fee structure and the methodology and cost basis used to calculate the maximum allowable impact fees.<sup>6</sup> This requirement has been met and is included at the beginning of this analysis.

### **(5) IMPACT FEE ENACTMENT**

The impact fee enactment, referred to as the ordinance in this analysis, must be adopted by the City Council to enact the proposed fees. The ordinance may not impose a fee higher than the maximum legal fee defined in the written analysis, but the ordinance may adopt a fee that is lower than the fee proposed in this analysis.<sup>7</sup>

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<sup>3</sup> 11-36-201(2)(e)

<sup>4</sup> 11-36-201(5)(a)

<sup>5</sup> 11-36-201(5)(b)

<sup>6</sup> 11-36-201(5)(c)

<sup>7</sup> 11-36-202(1)(a-b)



## ***IMPACT FEE NOTICING AND ADOPTION PROCEDURES – 11-36-202***

To impose any impact fee, the City must adopt an ordinance governing impact fees. This ordinance must include the following elements enumerated in Utah State Code Title 11, Chapter 36, Sections 1-5:

- ▣ A provision that establishes one or more service areas. It has been determined that a City-wide service area provides the most equitable distribution of costs for the City of South Jordan;
- ▣ A schedule of impact fees for each type of system improvement that shows the formula by which the impact fee was derived;
- ▣ Provisions that will allow local governments to adjust or modify the existing impact fee to take into account any changes or unusual circumstances to ensure that the impact fee is administered fairly; and
- ▣ Provisions that will allow local governments to adjust and modify the impact fee if following studies or research determines that it should be different.

A reasonable notice of the public hearing must be published in a local newspaper at least 14 days before the actual hearing. A copy of the proposed Impact Fee Ordinance, the Written Impact Fee Analysis, Executive Summary and Capital Facilities Plan Summary must be made available to the public during the 14-day noticing period for public review and inspection. Copies of these four items must be posted in designated public places which include each public library within the jurisdiction of the City and the City offices. Following the 14-day noticing period, a public hearing may be held, at which point the City Council may adopt, amend and adopt, or reject the impact fee ordinance and proposed fee schedule. Following the adoption, Utah Code Section 10-3-711 and 712 requires that a summary of the ordinance be published in order for the ordinance to become effective.

## ***ACCOUNTING FOR, EXPENDITURE OF, AND REFUND OF IMPACT FEES***

### **ACCOUNTING FOR IMPACT FEES – 11-36-301**

The Impact Fees Act requires any entity imposing impact fees to establish an interest bearing ledger account for each type of public facility for which an impact fee is collected. All impact fee receipts must be deposited into the appropriate account. Any interest earned in each account must remain in that account. At the end of each fiscal year, the City must prepare a report for each fund or account showing the source and amount of all monies collected, earned and received by each account and all expenditures made from each account. Impact fees for fire/EMS and police will be deposited into a single Public Safety Impact Fee Fund and used to defray capital costs as identified in both this analysis and the CFP.



### **EXPENDITURE OF IMPACT FEES – 11-36-302**

The City may only expend impact fees for system improvements identified in the Capital Facilities Plan.<sup>8</sup> All funds collected must be spent or encumbered within six years of collection, or the City must provide an extraordinary or compelling reason why the fees must be held longer or provide an ultimate date by which the impact fees collected will be expended<sup>9</sup>. The improvements that are financed through impact fees must be owned and operated by the City or another local public entity with which the City has contracted or will contract for services and improvements that will be operated on the behalf of the City.

This analysis demonstrates the need for the City to collect and retain impact fees beyond the six years in order to more closely connect to the timing of capital improvements. Under no circumstances is it anticipated that the City will collect and retain impact fees for these improvements beyond 2030.

### **REFUNDS OF IMPACT FEES – 11-36-303**

The City is required to refund any impact fees collected plus interest earned since their collection if 1) a developer who has paid impact fees does not proceed with the development activity and has filed a written request for a refund, 2) the fees have not been spent or encumbered within the six year period, or 3) the new development which has paid impact fees has not created an impact upon the system.<sup>10</sup>

### ***CHALLENGING IMPACT FEES – 11-36-401-402***

The Impact Fees Act allows any person, entity, or property owner within the service area, or any organization, association, or corporation owning property within the service area to challenge the accuracy of the calculated fee or procedure by which the fee was adopted.<sup>11</sup> Any person or entity challenging the impact fee may file a written request for information including the written Impact Fee Analysis, Capital Facilities Plan, ordinance and other information related to the fee calculation from the City imposing the fee. This information must be provided within two weeks.

An individual has the right to challenge the noticing or procedures of enacting any impact fee adopted on or after July 1, 2000. To remedy any adoption procedure found to be faulty, the City must repeat the process of noticing and adoption. If the fees are found to be inaccurate, the City must revise the fee structure to correct any miscalculation and repeat the adoption process. If the fees are found to be incorrect and have already been collected, the City must refund the difference between what was collected and what should have been collected plus interest earned since their collection on these funds. The parties may settle any impact fee dispute through arbitration.

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<sup>8</sup> 11-36-302(1a)

<sup>9</sup> 11-36-302(2b)

<sup>10</sup> 11-36-303(1-3)

<sup>11</sup> 11-36-402



## CHAPTER 2

# FUTURE IMPACT FROM GROWTH UPON THE CITY'S PUBLIC SAFETY FACILITIES

*REQUIRED BY: (11-36-201(5)(a)(i-ii))*

The number of police calls, fire incidents, and emergency medical incidents will increase as the City's population and commercial development activity continues to increase. This chapter addresses the increased necessity for fire/EMS and police services based upon the growth in population given the City's land-use planning. Using the estimated demand assumptions, the CFP identifies the public facilities needed to maintain the City's established level of service.

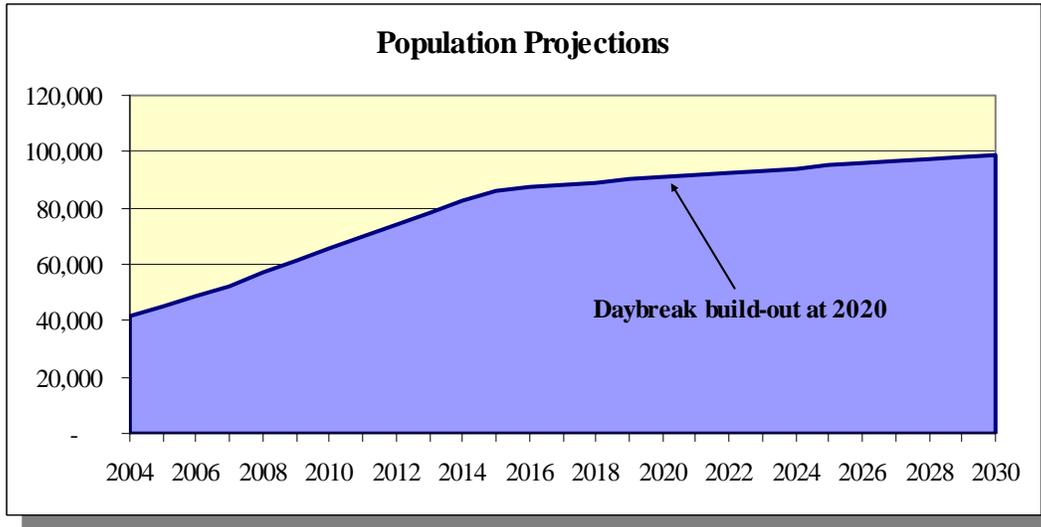
This chapter estimates and projects the additional demands for fire/EMS and police assistance including capital projects and additional equipment necessary to maintain the current level of service as the population of the City continues to expand.

### ***PROJECTED POPULATION GROWTH***

According to the Utah Foundation's Statistical Review of Government in Utah for 2000, the City of South Jordan's 9.4% annual growth rate from 1990 to 1999 was the second highest annual growth rate for all cities in the state of Utah during that time. As of 2000, the City of South Jordan was the 15<sup>th</sup> largest city in the state. Figure 2.1 projects the City's annual population growth until build-out in 2030. The City expects to have 98,883 residents by build-out.



**FIGURE 2.1: PROJECTED POPULATION GROWTH**



***CURRENT LAND USE PLANNING***

The population growth presented in Figure 2.1 and the future demands for fire/EMS and police services through build-out found in Figures 2.6 and 2.8 have been projected based upon a build-out land use scenario found below in Figure 2.2. The proposed impact fees are structured to ensure that upon build-out, sufficient fire/EMS and police facilities are constructed to adequately serve this mix of land use at the defined level of service.

**FIGURE 2.2: PROJECTED LAND USES AT BUILD-OUT**

	<b>South Jordan City</b>	<b>Daybreak</b>	<b>Total</b>
	<b>Lots/Acres</b>	<b>Lots/Acre</b>	<b>Lots/Acre</b>
Single Family Dwelling Units (SFDU)	16,105.00	10,166.85	26,271.85
Multi-Family Dwelling Units (MFDU)	1,031.00	3,500.15	4,531.15
Hotel/Motel (Rooms)	530.00	-	530.00
<b>Total Units</b>	<b>17,666.00</b>	<b>13,667.00</b>	<b>31,333.00</b>
School (Acres)	181.94	173.00	354.94
Nursing Home (Acres)	19.30	-	19.30
Church (Acres)	245.01	118.00	363.01
Office (Acres)	460.68	137.00	597.68
Light Industrial (Acres)	50.00	149.30	199.30
Commercial (Acres)	447.41	158.70	606.11
<b>Total Acreage</b>	<b>1,404.33</b>	<b>736.00</b>	<b>2,140.33</b>

***CURRENT PUBLIC SAFETY PRIVATE CALLS BY LAND USE CATEGORY***

The calculation of the impact fees is based upon the current number of private calls received per unit of each identified land use. Figures 2.3 and 2.4 show the average annual fire/EMS and police calls per unit of land use that is currently developed. The historic number of calls received is based upon the actual number of private calls received in 2002 and 2003.



**FIGURE 2.3: CURRENT ANNUAL PRIVATE FIRE/EMS CALLS PER LAND USE**

Zone	Developed Acres/Units <sup>1</sup>	Historic Private Fire/EMS Calls	Fire/EMS Calls per Unit/Acre
<b>Residential/Hotel</b>			
Single Family (SFDU)	10,411.85	776.19	0.075
Multi-Family (MFDU)	723.15	20.62	0.029
Hotel/Motel (Rooms)	227.93	8.05	0.035
<b>Total Units</b>	<b>11,362.93</b>	<b>804.86</b>	
<b>Business/Institutional</b>			
School (Acres)	125.58	23.65	0.188
Nursing Home (Acres)	9.12	81.57	8.944
Church (Acres)	92.00	4.53	0.049
Office (Acres)	106.73	19.14	0.179
Light Industrial (Acres)	40.00	35.76	0.894
Commercial (Acres)	140.49	25.67	0.183
<b>Total Acreage</b>	<b>513.92</b>	<b>190.32</b>	

**FIGURE 2.4: CURRENT ANNUAL PRIVATE POLICE CALLS PER LAND USE**

Zone	Developed Acres/Units	Historic Police Calls	Police Calls per Unit/Acre
<b>Residential/Hotel</b>			
Residential <sup>1</sup>	11,135.00	3,629.38	0.326
Hotel/Motel (Rooms)	227.93	127.38	0.559
<b>Total Units</b>	<b>11,362.93</b>	<b>3,756.76</b>	
<b>Business/Institutional</b>			
School (Acres)	125.58	368.90	2.938
Nursing Home (Acres)	9.12	9.77	1.071
Church (Acres)	92.00	98.48	1.070
Office (Acres)	106.73	257.08	2.409
Light Industrial (Acres)	40.00	5.00	0.125
Commercial (Acres)	140.49	569.30	4.052
<b>Total Acreage</b>	<b>513.92</b>	<b>1,308.53</b>	

1- Police calls are not distinguished between single family and multi-family residences

**PROJECTIONS OF PUBLIC SAFETY CALLS THROUGH BUILD-OUT**

The fire/EMS and police call projections are based upon the current and future land use projections within South Jordan proper and the Daybreak Development. The historic fire/EMS and police calls have been categorized based upon the classes of land uses per acre of developed land or by residential unit. The resulting historic calls per acre of land or per residential unit are applied to the amount of undeveloped land remaining within the City and the Daybreak Development. The future fire/EMS and police call projections are shown in Figures 2.5 and 2.7.

The City responded to 1,651 total fire/EMS calls and 22,701 police calls in 2003. The current calls per acre when applied to the undeveloped acreage of the City of South Jordan and the Daybreak Development suggest that the City should anticipate a total of



4,667 fire/EMS calls and 79,309 police calls for both public and private land uses once build-out is complete. This is anticipated to occur in 2030.

**All calls used in the calculation of the impact fees exclude all calls to public land and all non-private land uses. The call projections used in this impact fee analysis are significantly lower than the actual volume of fire/EMS and police calls.**

Not every future user within the City will be assessed an impact fee since the current City policy allows the City to waive impact fees for all City-owned facilities and schools that are constructed. The Impact Fees Act also includes provisions that will allow the City to waive impact fees from low-income housing, construction that benefits the community as a whole, or development that provides an offsetting economic benefit. The infrastructure costs related to these land-uses will be borne by user fees or other revenue sources.

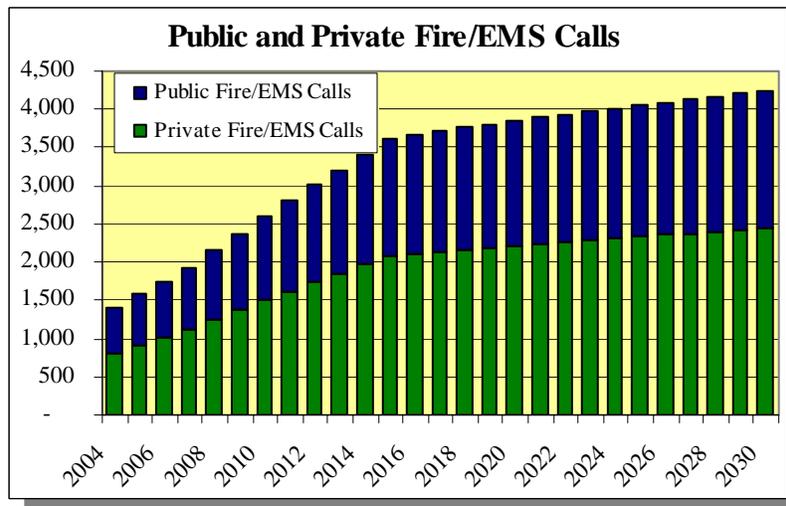
**PROJECTED PRIVATE FIRE/EMS CALLS**

**FIGURE 2.5: TOTAL PROJECTED PRIVATE FUTURE FIRE/EMS CALLS AT BUILD-OUT**

Zone	Undeveloped Units/Acres	Historic Fire/EMS Calls per Unit/Acre	Future Private Fire/EMS Calls per Land Use
<b>Residential/Hotel</b>			
Single-Family (SFDU)	15,860	0.075	1,182
Multi-Family (MFDU)	3,808	0.029	109
Hotel/Motel (Rooms)	302	0.035	11
<b>Total Units</b>	<b>19,970</b>		<b>1,302</b>
<b>Business/Institutional</b>			
School (Acres)	229	0.188	43
Nursing Home (Acres)	10	8.944	91
Church (Acres)	271	0.049	13
Office (Acres)	491	0.179	88
Light Industrial (Acres)	159	0.894	142
Commercial (Acres)	466	0.183	85
<b>Total Private Land Acreage</b>	<b>1,626</b>		<b>463</b>
<b>Total Additional Fire/EMS Calls to Private Land Uses<sup>1</sup></b>			<b>1,765</b>

1- Calls reflect only responses to private land uses. Public land and roadway responses have been excluded.

**FIGURE 2.6: GROWTH IN PRIVATE FIRE/EMS CALLS TO BUILD-OUT**





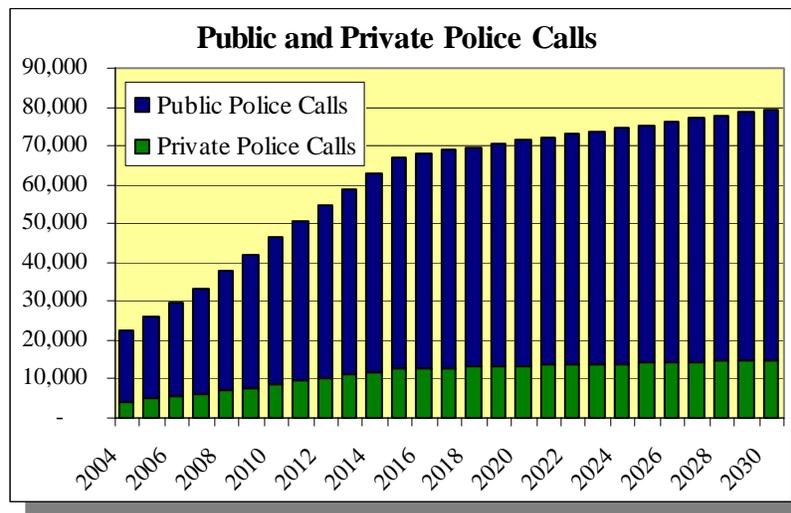
## PROJECTED PRIVATE POLICE CALLS

**FIGURE 2.7: TOTAL PROJECTED PRIVATE POLICE CALLS AT BUILD-OUT**

Zone	Undeveloped Units/Acres	Historic Police Calls per Unit/Acre	Future Private Police Calls per Land Use
<b>Residential/Hotel</b>			
Residential	19,668	0.326	6,411
Hotel/Motel (Rooms)	302	0.559	169
<b>Total Units</b>	<b>19,970</b>		<b>6,579</b>
<b>Business/Institutional</b>			
School (Acres)	229	2.938	674
Nursing Home (Acres)	10	1.071	11
Church (Acres)	271	1.070	290
Office (Acres)	491	2.409	1,182
Light Industrial (Acres)	159	0.125	20
Commercial (Acres)	466	4.052	1,887
<b>Total Private Land Acreage</b>	<b>1,626</b>		<b>4,064</b>
<b>Total Additional Police Calls to Private Land Uses<sup>1</sup></b>			<b>10,643</b>

1- Calls reflect only responses to private land uses. Public land and roadway responses have been excluded.

**FIGURE 2.8: GROWTH IN POLICE CALLS TO BUILD-OUT**





## CHAPTER 3 FUTURE PUBLIC SAFETY CAPITAL EXPENSES AND EQUITY BUY-IN COMPONENTS

The Impact Fees Act allows for three cost components to be included to recover future financing costs. These cost components are (1) the construction costs of growth-driven improvements, (2) the future costs of issuance and interest that relate to future financing with bonds or inter-fund loans in the form of a note to finance growth-driven capital projects that cannot be cash funded, and (3) appropriate professional services inflated from current dollars to construction year costs.

### *FUTURE CAPITAL AND FINANCING COSTS*

#### **FUTURE CAPITAL PROJECT COSTS**

The costs of future capital projects are defined in the corresponding Capital Facilities Plan and are summarized below in Figure 3.1. The City anticipates building three public safety facilities through build-out. Two fire stations will be constructed to meet demand in the eastern area of the City in the Riverbottoms area, and a second station will be constructed in the Daybreak area. The third project is a proposed Satellite City Office to be located in the Daybreak area. 15,808 of the 30,000 square foot facility will be reserved for City offices, and the remaining 14,192 square feet will be dedicated for police administration.

The City currently estimates that approximately \$13.38 million in construction year costs of future public safety and overlapping administration projects will be required to sufficiently serve the City through build-out. Of this total amount, approximately \$9.2 million will be funded through impact fees. The remaining portion of the costs pertains to the administrative area of the Satellite City Office. This portion must be funded through another source of revenue such as property tax or sales tax revenues.

**FIGURE 3.1: FUTURE PUBLIC SAFETY AND OVERLAPPING ADMINISTRATION CAPITAL PROJECTS**

Description	Construction Year	Facility Floor Space		Total Building Cost	Land Area		Parking Area			Totals					
		Total Square Footage	Cost per Square Foot		Total Land Cost	Total Land Cost	Total Parking Coverage	Total Square Footage	Surfacing Cost per Square Foot	Total Parking Area Costs	Total Costs	Construction Year Costs @ 5% Inflation	% Attributable to Fire/EMS	% Attributable to Police	
Fire Station 63 - Construction and Land Purchase	2007	10,535	\$ 150	\$ 1,580,233	1.25	\$ 150,000	\$ 187,500	80%	33,025	\$ 8.00	\$ 264,201	\$ 2,031,934	\$ 2,352,217	\$ 2,352,217	\$ -
Fire Station 64 - Construction and Land Purchase	2010	8,204	150	1,230,558	1.25	150,000	187,500	80%	35,356	8.00	282,850	1,700,908	2,279,380	2,279,380	-
Satellite City Office/ Police Offices	2015	30,000	150	4,500,000	2.00	150,000	300,000	80%	39,696	8.00	317,568	5,117,568	8,752,778	-	4,612,026
<b>Totals</b>		<b>48,739</b>		<b>\$ 7,310,791</b>			<b>\$ 675,000</b>				<b>\$ 864,619</b>	<b>\$ 8,850,410</b>	<b>\$ 13,384,375</b>	<b>\$ 4,631,597</b>	<b>\$ 4,612,026</b>



***FUTURE CAPITAL FINANCING COSTS***

**DEBT FINANCING**

In the event the City has not amassed sufficient impact fees to pay for the construction of time sensitive or urgent capital projects needed to accommodate new growth, the City must look to revenue sources other than impact fees for funding. The Impact Fees Act allows for the costs related to the financing of future capital projects, including costs of issuance and interest costs, to be legally included in the impact fee. This allows the City to finance and quickly construct infrastructure for new development and reimburse itself later from impact fee revenues for the costs of principal and interest.

The future financings are intended to help the City maintain level and consistent annual growth-related expenses and ensure that the impact fee sub-fund balances do not reach a deficit. The City will contemplate one bond issue, the proposed Series 2015 Sales Tax Revenue Bonds, to fund the aforementioned public safety capital improvements. Figure 3.2 summarizes this bond issue that should be considered to adequately fund the future capital projects. The City may also consider using inter-fund loans to fund its capital improvements.

**FIGURE 3.2: PROPOSED FINANCINGS**

Bond Issue	Par Amount	Proceeds	Net P&I
<b>Proposed Sales Tax Revenue Bonds</b>			
Series 2015 Sales Tax Revenue Bonds	\$ 7,774,000	\$ 7,147,139	\$ 10,819,388

***PROFESSIONAL SERVICES EXPENSES***

**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 to four years. A 2004 cost of \$15,000 per update, including a 3% annual increase to account for inflation, is shown in Figure 3.3.



**FIGURE 3.3: IMPACT FEE ANNUAL UPDATES**

Impact Fee		Impact Fee	
Year	Update Costs	Year	Update Costs
2004	\$ 36,000.00	2018	\$ -
2005	-	2019	23,369.51
2006	-	2020	-
2007	16,390.91	2021	-
2008	-	2022	25,536.50
2009	-	2023	-
2010	17,910.78	2024	-
2011	-	2025	27,904.42
2012	-	2026	-
2013	19,571.60	2027	-
2014	-	2028	30,491.91
2015	-	2029	-
2016	21,386.41	2030	-
2017	-		
<b>Total Impact Fee Update Costs =</b>		<b>\$</b>	<b>218,562.04</b>

***TOTAL ANNUAL EXPENSES THROUGH BUILD-OUT***

The City will have several classes of expense to which impact fees may be applied. These costs include future capital projects and the debt issued to finance them, outstanding debt which has been issued to finance growth-related improvements, and the costs of professional services such as engineering and impact fee review. Figure 3.4 below summarizes the total annual costs that will be incurred by the City. The actual resulting cashflows and fund balances given this cost scenario are found in Figure 7.2.

**FIGURE 3.4: TOTAL ANNUAL IMPACT FEE RELATED EXPENSES (CONSTRUCTION CAPITAL, FINANCING, MISC.)**

Year	Fire/EMS	Police	Total Expenses	Year	Fire/EMS	Police	Total Expenses		
2004	\$ 26,399	\$ 79,398	\$ 105,798	2018	\$ 219,867	\$ 333,039	\$ 552,906		
2005	63,614	62,164	125,778	2019	237,944	345,116	583,060		
2006	65,323	62,526	127,849	2020	232,841	333,752	566,593		
2007	75,188	70,432	145,620	2021	239,601	333,957	573,558		
2008	115,633	62,526	178,159	2022	259,232	346,303	605,535		
2009	118,880	62,731	181,611	2023	253,604	333,305	586,909		
2010	131,084	71,200	202,284	2024	260,941	333,374	594,315		
2011	180,372	62,310	242,682	2025	282,517	347,621	630,138		
2012	185,531	62,295	247,826	2026	276,394	333,931	610,325		
2013	200,687	72,473	273,160	2027	276,095	272,777	548,872		
2014	196,336	62,386	258,721	2028	299,624	287,955	587,580		
2015	201,927	62,023	263,950	2029	292,909	272,709	565,619		
2016	218,454	344,348	562,802	2030	301,697	272,674	574,371		
2017	213,816	334,107	547,923						
<b>Total Impact Fee Expenses:</b>				<b>\$</b>	<b>5,426,510</b>	<b>\$</b>	<b>5,617,432</b>	<b>\$</b>	<b>11,043,942</b>



***EQUITY BUY-IN***

The intent of the equity buy-in component is to recover the costs of existing infrastructure from new development. In this case, the equity buy-in relates to City Hall. The City recently finished construction of City Hall, of which a portion of the lower floor of the building is dedicated to public safety administration for both fire/EMS and police. The intent of the buy-in is to calculate the portion of City Hall that is being expanded from the previous City Hall due to growth.

As shown in Figure 3.5, 11,481 square feet of the 50,000 total square feet found in City Hall are dedicated to public safety. 9,974 square feet are dedicated to police, while the remaining 1,507 square feet are used by the fire administration. All common areas that are shared among the fire/EMS and police administrations have been reduced to account for the portion of the area that is used by each administration. Areas of incarceration may not be included in the calculation of impact fees, so all floor space totals have excluded incarceration areas.

Figure 3.5 summarizes the calculation of the total financing costs related to City Hall that can be recovered through impact fees. This is calculated by dividing the number of square feet occupied by each administration by the total City Hall floor space.

**FIGURE 3.5: CALCULATION OF PUBLIC SAFETY AREA WITHIN CURRENT CITY HALL**

	Fire/EMS	Police	Other	Total
<b>New City Hall</b>				
Square Feet	1,507	9,974	38,519	50,000
% of Total	3.01%	25.89%	77.04%	-

**SERIES 2001 SALES TAX REVENUE BONDS**

The City issued the Series 2001 Sales Tax Revenue Bonds to finance the construction of roadways and City Hall. The total issue amount was \$15,000,000 and \$7,160,000 was used in the construction of City Hall. Of this amount, \$1,088,324 was used for furniture. The exclusion of the furniture expense removes approximately 15% of the total financing costs from of the portion of the bonds that financed City Hall.

Including the 15% reduction for furniture expenses, \$5,702,797 in principal and \$4,129,160 in interest remain outstanding for the portion of the bonds that funded City Hall. With the furniture expense adjustment, the total outstanding debt expense for the City Hall is approximately \$9,831,956. Therefore, 3.01% of this cost relates to fire/EMS and 25.89% relates to police.



## CHAPTER 4

### PROPORTIONATE SHARE ANALYSIS

*REQUIRED BY (11-36-201(5)(b))*

The Proportionate Share Analysis requirement was established by the case of Banberry Development Corp. v. South Jordan City<sup>12</sup> to ensure that the City did not collect impact fees that placed an inequitable burden on new development relative to the impact that the development would place upon the system. Banberry has set forth that a municipality must “reasonably” provide evidence that supports the imposition of impact fees.

The Utah Supreme Court has reinforced this philosophy through subsequent cases including The Home Builders Association of the State of Utah v. City of North Logan<sup>13</sup>. It was determined that a city must have “sufficient flexibility to deal realistically with issues that do not admit of any kind of precise mathematical equality”. The Court stated that such equality is “neither feasible nor constitutionally vital”.

It has been shown that a city must prepare the Proportionate Share Analysis as accurately as possible and within the confines of the law. If the requirement is met, the burden of proof that the impact fees are inequitable lies with the challenger and not with a city to prove that the fees are equitable.

#### ***MANNER OF FINANCING EXISTING PUBLIC FACILITIES – 201(5)(b)(ii-iii)***

The City of South Jordan has funded the capital infrastructure for public safety through a combination of different revenue sources which include property tax and general fund revenues. A portion of equipment, personnel and payroll expense and vehicles which are not covered by the impact fees have been funded through grants. These grants are not an issue in this impact fee analysis.

It is clear that the level of service that currently exists has been funded by the existing residents who have funded the existing improvements through fees and taxes. The equity of funding future improvements that will be needed by new growth through impact fees places a similar burden upon future users as has been placed upon existing users through impact fees, property taxes, user fees and other revenue sources.

This analysis has removed all funding that has come from federal grants and donations from non-resident citizens to ensure that none of those infrastructure items are included in the level of service.

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<sup>12</sup> 631 P. 2d 899, 903-4 (Utah 1981.)

<sup>13</sup> 983 P. 2d 561, 565 (Utah 1999.)



## ***CONSIDERATION OF ALL REVENUE SOURCES – 201(5)(b)(iv)***

The Impact Fees Act requires that the Proportionate Share Analysis demonstrate that impact fees paid by new development are the most equitable method of funding growth-related infrastructure. This statement may be supported by demonstrating through the CFP that the project costs that are included in the impact fees are growth-related and serve no users other than future users who have not yet come in.

The City's objective is to fairly and equitably recover the costs of new growth-related infrastructure from new development. This implies that new growth will be expected to pay its fair share of the costs that will be incurred to serve them. In accordance with this philosophy, the following explains the pros and cons of funding mechanisms that are available to the City to pay for new infrastructure.

### **Property Tax Revenues or General Fund Revenues**

Ad valorem taxes such as property taxes are a stable source of revenues. However, ad valorem taxes allocate new system costs to new development based upon property valuation rather than true impact. Also, the costs of new infrastructure would be borne by existing users who have already contributed to the existing infrastructure through their property taxes and other fees. This would place an unfair burden upon existing users who have already paid for existing infrastructure and will continue to subsidize growth.

### **Special Improvement District Bonds**

SID bonds are an acceptable mechanism to recover the costs of growth-related infrastructure from new users by means of placing an assessment upon a property user's land. SID bonds are a stable funding mechanism but have two major limitations. The first limitation is that assessments are typically based upon lot size rather than by a measure of the true impact that a user will have. The second limitation of SID bonds is that they require a large amount of work to structure and administer, thus adding to the City's costs to new development.

### **Impact Fees**

Impact fees have become an ideal mechanism for funding growth-related infrastructure. Analysis is required to accurately assess the true impact of a particular user upon the City infrastructure and the ability to prevent existing users from having to subsidize new growth.

It is the opinion of this analysis that based upon the historic funding of the existing infrastructure and the intent of the City to equitably allocate the costs of growth-related infrastructure in accordance with the true impact that a user will place, that impact fees should be used to fund all new growth-related infrastructure planned by the City.



### ***PROPOSED CREDITS OWED TO DEVELOPMENT – 201(5)(b)(v)***

The Impact Fees Act requires that credits be paid back to development for future fees that may be paid to fund system improvements found in the CFP. Credits may also be paid back to developers who have constructed or directly funded items that are included in the CFP or donated to the City in lieu of impact fees. This situation does not apply to developer exactions or improvements required to offset density or as a condition for development. Any item that a developer funds must be included in the CFP if a credit is to be issued.

The credits are applicable only in situations where the City has specifically included into property taxes a dedicated fee to pay for the new growth-related improvements. If a capital improvement fee is included into the user fee component but does not specifically detail that these funds are used for revenue bonds, then this does not apply as those revenues will be sent to a capital improvement fund which can also pay for repair and replacement of existing infrastructure.

If a specific property tax line item is not dedicated to bond issues and the debt service on the bonds are paid through excess general fund revenues, then a credit will not apply as property taxes is not the only source of revenue to the General Fund.

In the situation that a developer chooses to construct facilities found in the CFP in lieu of impact fees, the arrangement must be made through the developer and the City and are not contemplated in this analysis.

### ***SUMMARY OF TIME PRICE DIFFERENTIAL – 201(5)(b)(vii)***

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the future value of costs incurred at a later date are accurately calculated to include the costs of construction inflation. An inflation component is included in all capital project costs that are to be constructed in fiscal year 2004 and beyond. A time price differential is not contemplated for the costs of bond debt service that are included in the impact fees as the payments do not increase over time with inflation.

Because all improvements have been adjusted for inflation, it is not equitable for new development paying impact fees ten years from now to be charged an impact fee that is higher than a fee paid today as the costs of inflation have been included into the costs basis. There is no correlation between an inflation-adjusted cost in projects and an inflated impact fee.



## CHAPTER 5 CALCULATION OF THE PUBLIC SAFETY IMPACT FEE

### *CALCULATION OF THE PUBLIC SAFETY IMPACT FEES*

The Impact Fees Act allows for cities to recover the costs of building and improvements with a minimum life of ten years for public safety. Unlike water or wastewater systems that rely primarily on long-lived capital infrastructure such as lines or treatment plants, the public safety infrastructure relies primarily upon short-lived equipment such as police cars, fire trucks, ambulances and equipment for police officers, firefighters and paramedics. However, it is important to note that the Impact Fees Act allows for the collection of impact fees solely for the costs of buildings that are related to public safety, rather than for equipment, vehicles and other short-lived assets.

### **PROPORTIONATE SHARE OF FIRE/EMS COSTS TO GROWTH**

Since the City’s existing and future public safety facilities will serve both existing and future users, the methodology used in this analysis combines the total costs of the City’s existing and future public safety facilities. Of the projected number of private calls that will be received at build-out, the costs of future public safety facilities that are attributable to growth will be directly proportionate to the number of calls made at build-out by future users. The proportionate share of costs for fire/EMS facilities is shown below.

**FIGURE 5.1: GROWTH RELATED EXPENSE FOR FIRE/EMS FACILITIES**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
Fire Station 61	\$ 1,650,000	64.62%	\$ 1,066,298
Fire Station 62	1,650,000	64.62%	1,066,298
City Hall	296,335	64.62%	191,504
Fire Station 63	2,352,217	64.62%	1,520,100
Fire Station 64	2,279,380	64.62%	1,473,029
<b>TOTALS:</b>	<b>\$ 8,227,932</b>		<b>\$ 5,317,229</b>

Therefore, the total cost of future fire/EMS facilities, Fire Stations 63 and 64, which must be paid by future users is \$2,993,129. Figure 5.2 breaks down the cost per call for fire/EMS.



**FIGURE 5.2: CALCULATIONS OF FIRE/EMS COST PER CALL**

Fire/EMS Projects	Total Costs	Future Private Fire/EMS Calls	Cost per Fire/EMS Call
<b>Total Capital Projects Fee</b>			
Future Capital Projects <sup>1</sup>	\$ 2,993,128.82	1,765	\$ 1,696.14
<b>Total Capital Projects Fee</b>	<b>\$ 2,993,128.82</b>		<b>\$ 1,696.14</b>
<b>Miscellaneous Fee</b>			
Impact Fee Analysis Update	\$ 109,281.02	1,765	\$ 61.93
Stabilization Fee	(993,111.94)	1,765	(562.77)
<b>Miscellaneous Fee</b>	<b>\$ (883,830.92)</b>		<b>\$ (500.85)</b>
<b>Total System Impact Fee</b>	<b>\$ 2,109,297.90</b>		<b>\$ 1,195.29</b>
<b>Total Buy-In Fee</b>			
Series 2001 Debt Service	\$ 191,503.99	1,765	\$ 108.52
Station 61 Reimbursement <sup>1</sup>	1,066,298.00	1,765	604.25
Station 62 Reimbursement <sup>1</sup>	1,066,298.00	1,765	604.25
<b>Total Buy-In Fee</b>	<b>\$ 2,324,100.00</b>		<b>\$ 1,317.01</b>

**Total Impact Fee Cost per Call**

**\$ 2,512.30**

<sup>1</sup> Includes 3% interest paid to General Fund for inter-fund loan

**FIGURE 5.3:**

**ALLOCATION OF FIRE/EMS COST PER CALL TO LAND USES**

Zone	Cost per Call	Historic Fire/EMS Calls per Unit	Fire/EMS Impact Fee per Land Use
<b>Residential/Hotel</b>			
Single Family Residential (Dwelling)	\$ 2,512.30	0.075	\$ 187.29
Multi Family Residential (Dwelling)	2,512.30	0.029	71.63
Hotel/Motel (Rooms)	2,512.30	0.035	88.76
<b>Business/Institutional</b>			
School (Acres)	\$ 2,512.30	0.188	\$ 473.19
Nursing Home (Acres)	2,512.30	8.944	22,468.92
Church (Acres)	2,512.30	0.049	123.70
Office (Acres)	2,512.30	0.179	450.44
Light Industrial (Acres)	2,512.30	0.894	2,246.09
Commercial (Acres)	2,512.30	0.183	459.12

The proportionate share of costs for police facilities is shown in Figure 5.4. Like fire/EMS facilities, the methodology used to calculate the police impact fee combines the total costs of the City's existing and future police facilities since police facilities are expected to serve both existing and future users.



**FIGURE 5.4: GROWTH RELATED EXPENSE FOR POLICE FACILITIES**

Facility	Adjusted Costs and Financing	Percentage to Growth	Growth Related Expense
City Yard	\$ 54,823	71.38%	\$ 39,131
City Hall	1,961,259	71.38%	1,399,876
Satellite City Office / Police Office	6,546,731	71.38%	4,672,821
<b>TOTALS:</b>	<b>\$ 8,562,813</b>		<b>\$ 6,111,827</b>

Therefore, the total cost, including the proposed financing, of the future Satellite City Office to be paid by future users is \$4,672,821. Figure 5.5 breaks down the cost per call for police.

**FIGURE 5.5: CALCULATIONS OF POLICE COST PER CALL**

Police Projects	Total Costs	Future Private Police Calls	Cost per Police Call
<i>Total Capital Projects Fee</i>			
Future Capital Projects	\$ 3,291,897.63	10,643	\$ 309.29
Series 2015 Debt Service	4,069,144.51	10,643	382.31
Series 2015 Bond Proceeds	(3,291,897.63)	10,643	(309.29)
<i>Total Capital Projects Fee</i>	<i>\$ 4,069,144.51</i>		<i>\$ 382.31</i>
<i>Miscellaneous Fee</i>			
Impact Fee Analysis Update	\$ 109,281.02	10,643	\$ 10.27
Stabilization Fee	(1,171,239.56)	10,643	(110.04)
<i>Miscellaneous Fee</i>	<i>\$ (1,061,958.54)</i>		<i>\$ (99.78)</i>
<i>Total System Impact Fee</i>	<i>\$ 3,007,185.96</i>		<i>\$ 282.54</i>
<i>Total Buy-In Fee</i>			
Series 2001 Debt Service	\$ 1,399,875.96	10,643	\$ 131.52
City Yard Reimbursement	39,130.68	10,643	3.68
<i>Total Buy-In Fee</i>	<i>\$ 1,439,006.64</i>		<i>\$ 135.20</i>

**Total Impact Fee Cost per Call** **\$ 417.74**



**FIGURE 5.6: ALLOCATION OF POLICE COST PER CALL TO LAND USES**

Zone	Cost per Call	Historic Police Calls per Unit	Police Impact Fee per Land Use
<b>Residential/Hotel</b>			
Residential	\$ 417.74	0.326	\$ 136.16
Hotel/Motel (Rooms)	417.74	0.559	233.46
<b>Business/Institutional</b>			
School (Acres)	417.74	2.938	\$ 1,227.14
Nursing Home (Acres)	417.74	1.071	447.45
Church (Acres)	417.74	1.070	447.14
Office (Acres)	417.74	2.409	1,006.16
Light Industrial (Acres)	417.74	0.125	52.21
Commercial (Acres)	417.74	4.052	1,692.84

**FIGURE 5.7: COMBINED PUBLIC SAFETY IMPACT FEE ALLOCATION TO LAND USES**

Zone	Combined Public Safety Impact Fee per Unit/Acre	Floorspace per Acre (Sf)	Combined Public Safety Impact Fee per Unit/1K Sf
<b>Residential/Hotel</b>			
			<b>per Unit</b>
Single Family Residential (Dwelling)	\$ 323.45	-	\$ 323.45
Multi Family Residential (Dwelling)	207.79	-	\$ 207.79
Hotel/Motel (Rooms)	322.22	-	\$ 322.22
<b>Business/Institutional</b>			
			<b>per 1K Sf</b>
School (15% FAR)	\$ 1,700.33	6,534	\$ 260.23
Nursing Home (30% FAR)	22,916.36	13,068	\$ 1,753.62
Church (15% FAR)	570.84	6,534	\$ 87.36
Office (50% FAR)	1,456.60	21,780	\$ 66.88
Light Industrial (47% FAR)	2,298.31	20,473	\$ 112.26
Commercial (27% FAR)	2,151.96	11,761	\$ 182.97



## CHAPTER 6 SUMMARY OF IMPACT FEE SUB-FUND CASH FLOWS

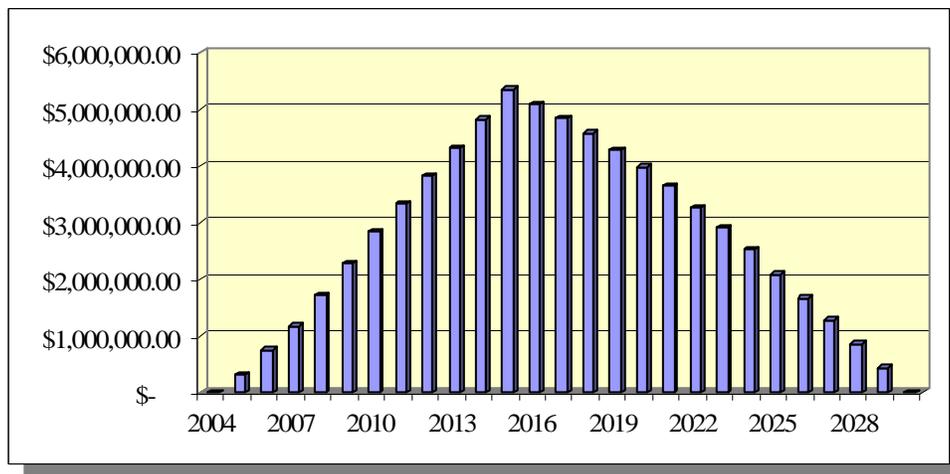
### *IMPACT FEE REVENUES, EXPENSES AND CASH FLOWS*

As described in Chapter 1, each entity that charges impact fees must create an interest bearing impact fee sub-fund for each utility that collects impact fees and must account for and report the revenues, expenses and interest earnings therein.

The intent of the impact fees is not to generate a profit for the City, so the gross revenues minus gross expenditures should equal zero including all interest earnings. The Impact Fees Act requires that each sub-fund be interest bearing, but at the same time does not specify that impact fee payers should be credited for any interest earnings that may accrue. The majority of communities that impose impact fees must establish accounts in the Utah Public Treasurer’s Investment Fund (“UPTIF”) for their sub-funds. The estimated interest earnings for each sub-fund used in this analysis are based upon the historical UPTIF yields. The impact fees proposed in this analysis have been calculated net of interest earnings to ensure that upon build-out each impact fee sub-fund has a zero balance.

The objective of each sub-fund is to maintain a positive balance, which can be achieved with debt financing, inter-fund loans, or by deferring projects until sufficient funds are amassed. The proposed timing and amount of issued debt shown in this analysis are based on the projected growth rates of private public safety calls. The actual rates of growth that vary significantly from the projections presented in this analysis may affect the impact fees through changes in the timings of project construction, changes in the years that bonds will be issued, changes in the need for bonds.

**FIGURE 6.1: PROJECTED ANNUAL ENDING PUBLIC SAFETY IMPACT FEE SUB-FUND BALANCES**





**PUBLIC SAFETY IMPACT FEE CASHFLOWS**

**FIGURE 6.2: PROJECTED PUBLIC SAFETY IMPACT FEE SUB-FUND BALANCES**

<b>Summary</b>					
<b>Fiscal Year</b>	<b>Impact Fee Revenues</b>	<b>Total Expenses</b>	<b>Excess/ Shortfalls</b>	<b>Interest Income</b>	<b>Annual Ending Fund Balance</b>
2004	\$ -	\$ (105,797.82)	\$ (105,797.82)	\$ -	\$ -
2005	548,049.70	(125,778.05)	422,271.65	-	316,473.83
2006	548,049.70	(127,849.29)	420,200.40	9,494.21	746,168.45
2007	548,049.70	(145,620.05)	402,429.65	22,385.05	1,170,983.16
2008	693,523.85	(178,159.30)	515,364.55	35,129.49	1,721,477.20
2009	693,523.85	(181,611.19)	511,912.66	51,644.32	2,285,034.18
2010	693,523.85	(202,283.96)	491,239.90	68,551.03	2,844,825.10
2011	643,309.79	(242,681.68)	400,628.11	85,344.75	3,330,797.96
2012	643,309.79	(247,826.13)	395,483.66	99,923.94	3,826,205.56
2013	643,309.79	(273,160.26)	370,149.53	114,786.17	4,311,141.26
2014	643,309.79	(258,721.47)	384,588.33	129,334.24	4,825,063.83
2015	643,309.79	(263,949.92)	379,359.87	144,751.91	5,349,175.61
2016	143,467.25	(562,801.69)	(419,334.43)	160,475.27	5,090,316.44
2017	143,467.25	(547,922.59)	(404,455.33)	152,709.49	4,838,570.60
2018	143,467.25	(552,906.10)	(409,438.85)	145,157.12	4,574,288.87
2019	143,467.25	(583,060.10)	(439,592.84)	137,228.67	4,271,924.69
2020	143,467.25	(566,592.75)	(423,125.49)	128,157.74	3,976,956.94
2021	122,098.46	(573,558.10)	(451,459.63)	119,308.71	3,644,806.02
2022	122,098.46	(605,534.66)	(483,436.20)	109,344.18	3,270,714.00
2023	122,098.46	(586,908.65)	(464,810.19)	98,121.42	2,904,025.23
2024	122,098.46	(594,315.09)	(472,216.63)	87,120.76	2,518,929.36
2025	122,098.46	(630,137.67)	(508,039.21)	75,567.88	2,086,458.03
2026	122,098.46	(610,324.68)	(488,226.22)	62,593.74	1,660,825.56
2027	122,098.46	(548,871.85)	(426,773.38)	49,824.77	1,283,876.94
2028	122,098.46	(587,579.52)	(465,481.06)	38,516.31	856,912.19
2029	122,098.46	(565,618.95)	(443,520.49)	25,707.37	439,099.07
2030	122,098.46	(574,370.51)	(452,272.04)	13,172.97	0.00
	<b>\$ 8,879,590.51</b>	<b>\$ (11,043,942.01)</b>	<b>\$ (2,164,351.50)</b>	<b>\$ 2,164,351.50</b>	



## CHAPTER 7 CONCLUSION

The impact fees proposed in this analysis will be assessed within the all areas of the City, including the Daybreak Development, and are based upon the future capital and financing expenses and the portions of outstanding debt incurred to fund existing facilities that may still serve new growth. Costs per call for fire/EMS and police services are found in Figure 7.1 and are the basis for the maximum impact fees in Figure 7.2.

**FIGURE 7.1: PUBLIC SAFETY COSTS PER CALL**

	Capital Expenses <sup>1</sup>	% to Growth <sup>2</sup>	Growth Related Expenses	Miscellaneous Expenses <sup>3</sup>	Total Expenses	Additional Private Calls	Costs per Call
Fire/EMS	\$8,227,932.09	64.62%	5,317,229	\$ (883,830.92)	\$ 4,433,397.90	1,765	\$2,512.30
Police	8,562,812.99	71.38%	6,111,827	(1,061,958.54)	5,049,868.73	10,643	474.46

1- Based upon current replacement values of existing facilities and construction year values of future capital projects

2- Based upon the number of calls at build-out that will come from future users

3- Includes professional and stabilization fees

**FIGURE 7.2: COMBINED PUBLIC SAFETY IMPACT FEE BY LAND USE**

Zone	Combined Public Safety Impact Fee per Unit/Acre	Floorspace per Acre (Sf)	Combined Public Safety Impact Fee per Unit/1K Sf
<b>Residential/Hotel</b>			
			<b>per Unit</b>
Single Family Residential (Dwelling)	\$ 323.45	-	\$ 323.45
Multi Family Residential (Dwelling)	207.79	-	\$ 207.79
Hotel/Motel (Rooms)	322.22	-	\$ 322.22
<b>Business/Institutional</b>			
			<b>per 1K Sf</b>
School (15% FAR)	\$ 1,700.33	6,534	\$ 260.23
Nursing Home (30% FAR)	22,916.36	13,068	\$ 1,753.62
Church (15% FAR)	570.84	6,534	\$ 87.36
Office (50% FAR)	1,456.60	21,780	\$ 66.88
Light Industrial (47% FAR)	2,298.31	20,473	\$ 112.26
Commercial (27% FAR)	2,151.96	11,761	\$ 182.97

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**TECHNICAL APPENDIX A:  
FIRE/EMS AND POLICE IMPACT FEE CASHFLOWS**

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**APPENDIX A: FIRE/EMS AND POLICE IMPACT FEE CASHFLOWS**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	
1	<b>Fire/EMS Impact Fee Cashflows</b>																													
2																														
3	<b>Growth Projections to Build-Out</b>			<b>Impact Fee Revenue</b>			<b>Future Capital and Financing Expense</b>										<b>Summary</b>					<b>Fire/EMS</b>								
4	Fiscal Year		Total Fire/EMS Calls	Private Fire/EMS Calls Added Annually	Fire/EMS Impact Fee	Annual Fire/EMS Impact Fee Revenues	Capital Project Costs	Impact Fee Updates	2001 Sales Tax Revenue Bonds	Proposed Series 2015 Sale Tax Revenue Bonds	Station 61 Reimbursement	Station 62 Reimbursement	Station 63 Reimbursement	Station 64 Reimbursement	Loan/Bond Proceeds	Total Expenses	Fiscal Year	Impact Fee Revenues	Total Expenses	Excess/Shortfalls	Interest Income	Annual Ending Fund Balance	Fire/EMS Projects		Total Costs	Future Private Fire/EMS Calls	Cost per Fire/EMS Call			
5	2004	-	-	-	\$ 2,512.30	\$ -	\$ -	\$ (18,000.00)	\$ (8,399.35)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (26,399.35)	2004	\$ -	\$ (26,399.35)	\$ (26,399.35)	\$ -	\$ -	\$ -	Total Capital Projects Fee		\$ 2,993,128.82	1,765	\$ 1,696.14		
6	2005	109	109	109	2,512.30	273,630.00	-	-	(8,298.19)	(27,657.95)	(27,657.95)	-	-	-	(63,614.08)	2005	273,630.00	(63,614.08)	210,015.92	-	-	183,616.57	Future Capital Projects		\$ 2,993,128.82	1,765	\$ 1,696.14			
7	2006	218	218	218	2,512.30	273,630.00	-	-	(8,347.74)	(28,487.69)	(28,487.69)	-	-	-	(65,323.11)	2006	273,630.00	(65,323.11)	208,306.90	5,508.50	397,431.96	Total Capital Projects Fee		\$ 2,993,128.82		\$ 1,696.14				
8	2007	327	327	327	2,512.30	273,630.00	(1,520,099.71)	(8,195.45)	(8,308.10)	(29,342.32)	(29,342.32)	-	-	1,520,099.71	(75,188.18)	2007	273,630.00	(75,188.18)	198,441.82	11,922.96	607,796.75	Miscellaneous Fee								
9	2008	465	465	465	2,512.30	346,262.27	-	-	(8,347.74)	(30,222.59)	(30,222.59)	(46,840.20)	-	-	(115,633.11)	2008	346,262.27	(115,633.11)	230,629.16	18,233.90	856,659.81	Impact Fee Analysis Update		\$ 109,281.02	1,765	\$ 61.93				
10	2009	602	602	602	2,512.30	346,262.27	-	-	(8,375.82)	(31,129.26)	(31,129.26)	(48,245.41)	-	-	(118,879.75)	2009	346,262.27	(118,879.75)	227,382.52	25,699.79	1,109,742.12	Stabilization Fee		\$ (993,111.94)	1,765	\$ (562.77)				
11	2010	740	740	740	2,512.30	346,262.27	(1,473,029.12)	(8,955.39)	(8,309.25)	(32,063.14)	(32,063.14)	(49,692.77)	-	1,473,029.12	(131,083.70)	2010	346,262.27	(131,083.70)	215,178.57	33,292.26	1,358,212.96	Miscellaneous Fee		\$ (883,830.92)		\$ (500.85)				
12	2011	868	868	868	2,512.30	321,191.42	-	-	(8,318.17)	(33,025.04)	(33,025.04)	(51,183.56)	(54,819.82)	-	(180,371.62)	2011	321,191.42	(180,371.62)	140,819.80	40,746.39	1,539,779.15	Total System Impact Fee		\$ 2,109,297.90		\$ 1,195.29				
13	2012	996	996	996	2,512.30	321,191.42	-	-	(8,316.11)	(34,015.79)	(34,015.79)	(52,719.06)	(56,464.42)	-	(185,531.16)	2012	321,191.42	(185,531.16)	135,660.26	46,193.37	1,721,632.79	Total Buy-In Fee								
14	2013	1,124	1,124	1,124	2,512.30	321,191.42	-	-	(9,785.80)	(35,036.26)	(35,036.26)	(58,158.35)	(62,907.09)	-	(200,687.09)	2013	321,191.42	(200,687.09)	120,504.33	51,648.98	1,893,786.10	Series 2001 Debt Service		\$ 191,503.99	1,765	\$ 108.52				
15	2014	1,252	1,252	1,252	2,512.30	321,191.42	-	-	(8,328.49)	(36,087.35)	(36,087.35)	(55,929.65)	(59,903.10)	-	(196,335.94)	2014	321,191.42	(196,335.94)	124,855.48	56,813.58	2,075,455.16	Station 61 Reimbursement		\$ 1,066,298.00	1,765	\$ 604.25				
16	2015	1,379	1,379	1,379	2,512.30	321,191.42	-	-	(8,278.94)	(37,169.97)	(37,169.97)	(57,607.54)	(61,700.19)	-	(201,926.61)	2015	321,191.42	(201,926.61)	119,264.81	62,263.65	2,256,983.62	Station 62 Reimbursement		\$ 1,066,298.00	1,765	\$ 604.25				
17	2016	1,408	1,408	1,408	2,512.30	71,630.27	-	(10,693.21)	(8,303.72)	(38,285.07)	(38,285.07)	(59,335.77)	(63,553.20)	-	(218,454.03)	2016	71,630.27	(218,454.03)	(146,823.76)	67,709.51	2,177,869.37	Total Buy-In Fee		\$ 2,324,100.00		\$ 1,317.01				
18	2017	1,436	29	29	2,512.30	71,630.27	-	-	(8,375.15)	(39,433.62)	(39,433.62)	(61,115.84)	(65,457.73)	-	(213,815.97)	2017	71,630.27	(213,815.97)	(142,185.70)	65,336.08	2,101,019.75	Total Impact Fee Cost per Call				\$ 2,512.30				
19	2018	1,465	29	29	2,512.30	71,630.27	-	-	(8,263.25)	(40,616.63)	(40,616.63)	(62,949.32)	(67,421.46)	-	(219,867.29)	2018	71,630.27	(219,867.29)	(148,237.02)	63,030.59	2,015,813.32	Includes 3% interest paid to General Fund for inter-fund loan								
20	2019	1,494	29	29	2,512.30	71,630.27	-	(11,684.76)	(8,307.43)	(41,835.13)	(41,835.13)	(64,837.80)	(69,444.11)	-	(237,944.35)	2019	71,630.27	(237,944.35)	(166,314.08)	60,474.40	1,909,973.63									
21	2020	1,522	29	29	2,512.30	71,630.27	-	-	(8,350.05)	(43,090.18)	(43,090.18)	(66,782.93)	(71,527.43)	-	(232,840.77)	2020	71,630.27	(232,840.77)	(161,210.51)	57,299.21	1,806,062.33									
22	2021	1,546	24	24	2,512.30	60,961.27	-	-	(8,375.82)	(44,382.89)	(44,382.89)	(68,786.42)	(73,673.26)	-	(239,600.93)	2021	60,961.27	(239,600.93)	(178,639.67)	54,181.87	1,681,604.54									
23	2022	1,571	24	24	2,512.30	60,961.27	-	(12,768.25)	(8,301.16)	(45,714.37)	(45,714.37)	(70,850.01)	(75,883.45)	-	(259,231.62)	2022	60,961.27	(259,231.62)	(198,270.35)	50,448.14	1,533,782.32									
24	2023	1,595	24	24	2,512.30	60,961.27	-	-	(8,296.53)	(47,085.80)	(47,085.80)	(72,975.51)	(78,159.96)	-	(253,603.61)	2023	60,961.27	(253,603.61)	(192,642.34)	46,013.47	1,387,153.45									
25	2024	1,619	24	24	2,512.30	60,961.27	-	-	(8,274.73)	(48,498.38)	(48,498.38)	(75,164.78)	(80,504.76)	-	(260,941.02)	2024	60,961.27	(260,941.02)	(199,979.75)	41,614.60	1,228,788.30									
26	2025	1,643	24	24	2,512.30	60,961.27	-	(13,952.21)	(8,318.34)	(49,953.33)	(49,953.33)	(77,419.72)	(82,919.90)	-	(282,516.82)	2025	60,961.27	(282,516.82)	(221,555.56)	36,863.65	1,044,096.39									
27	2026	1,668	24	24	2,512.30	60,961.27	-	-	(8,340.47)	(51,451.93)	(51,451.93)	(79,742.31)	(85,407.49)	-	(276,394.13)	2026	60,961.27	(276,394.13)	(215,432.87)	31,322.89	859,986.41									
28	2027	1,692	24	24	2,512.30	60,961.27	-	-	(52,995.49)	(52,995.49)	(52,995.49)	(82,134.58)	(87,969.72)	-	(276,095.27)	2027	60,961.27	(276,095.27)	(215,134.01)	25,799.59	670,652.00									
29	2028	1,716	24	24	2,512.30	60,961.27	-	(15,245.96)	-	(54,585.35)	(54,585.35)	(84,598.62)	(90,608.81)	-	(299,624.09)	2028	60,961.27	(299,624.09)	(238,662.82)	20,119.56	452,108.73									
30	2029	1,740	24	24	2,512.30	60,961.27	-	-	(56,222.91)	(56,222.91)	(56,222.91)	(87,136.58)	(93,327.08)	-	(292,909.48)	2029	60,961.27	(292,909.48)	(231,948.21)	13,563.26	233,723.78									
31	2030	1,765	24	24	2,512.30	60,961.27	-	-	(57,909.60)	(57,909.60)	(57,909.60)	(89,750.68)	(96,126.89)	-	(301,696.76)	2030	60,961.27	(301,696.76)	(240,735.50)	7,011.71	0.00									
32			1.765			\$ 4,433,397.90			\$ (109,281.02)	\$ (191,503.99)	\$ -	\$ (1,066,298.00)	\$ (1,066,298.00)	\$ (1,520,099.71)	\$ (1,473,029.12)	\$ 2,993,128.82		\$ 4,433,397.90	\$ (5,426,509.84)	\$ (993,111.94)	\$ 993,112									
33																														
34																														
35	<b>Police Impact Fee Cashflows</b>																													
36																														
37	<b>Growth Projections to Buildout</b>			<b>Impact Fee Revenue</b>			<b>Future Capital and Financing Expense</b>										<b>Summary</b>					<b>Police</b>								
38	Fiscal Year		Total Police Calls	Private Police Calls Added Annually	Police Impact Fee	Annual Police Impact Fee Revenues	Capital Project Costs	Impact Fee Updates	2001 Sales Tax Revenue Bonds	Proposed Series 2015 Sale Tax Revenue Bonds	Reimbursement for City Yard	Loan/Bond Proceeds	Total Expenses	Fiscal Year	Impact Fee Revenues	Total Expenses	Excess/Shortfalls	Interest Income	Annual Ending Fund Balance	Police Projects		Total Costs	Future Private Police Calls	Cost per Police Call						
39	2004	-	-	-	\$ 417.74	\$ -	\$ -	\$ (18,000.00)	\$ (61,398.47)	\$ (79,398.47)	\$ -	\$ -	\$ (79,398.47)	2004	\$ -	\$ (79,398.47)	\$ (79,398.47)	\$ -	\$ -	\$ -	Total Capital Projects Fee		\$ 4,069,144.51	10,643	\$ 382.31					
40	2005	657	657	657	417.74	274,419.69	-	-	(60,658.94)	(1,505.03)	(1,505.03)	-	(62,163.97)	2005	274,419.69	(62,163.97)	212,255.72	-	132,857.26	Future Capital Projects		\$ 3,291,897.63	10,643	\$ 309.29						
41	2006	1,314	657	657	417.74	274,419.69	-	-	(61,021.16)	(1,505.03)	(1,505.03)	-	(62,526.18)	2006	274,419.69	(62,526.18)	211,893.51	3,985.72	348,736.49	Series 2015 Debt Service		\$ 4,069,144.51	10,643	\$ 382.31						
42	2007	1,971	657	657	417.74	274,419.69	-	(8,195.45)	(60,731.39)	(1,505.03)	(1,505.03)	-	(62,431.86)	2007	274,419.69	(70,431.86)	203,987.83	10,462.09	563,186.41	Total Capital Projects Fee		\$ 4,069,144.51		\$ 382.31						
43	2008	2,802	831	831	417.74	347,261.58	-	-	(61,021.16)	(1,505.03)	(1,505.03)	-	(62,526.18)	2008	347,261.58	(62,526.18)	284,735.39	16,895.59	864,817.40	Miscellaneous Fee										
44	2009	3,633	831	831	417.74	347,261.58	-	-	(61,226.41)	(1,505.03)	(1,505.03)	-	(62,731.44)	2009	347,261.58	(62,731.44)	284,530.14	25,944.52	1,175,292.06	Impact Fee Analysis Update		\$ 109,281.02	10,643	\$ 10.27						
45	2010	4,465	831	831	417.74	347,261.58	-	(8,955.39)	(60,739.84)	(1,505.03)	(1,505.03)	-	(71,200.26)	2010	347,261.58	(71,200.26)	276,061.32	35,258.76	1,486,612.14	Stabilization Fee		\$ (1,171,239.56)	10,643	\$ (110.04)						
46	2011	5,236	771	77																										