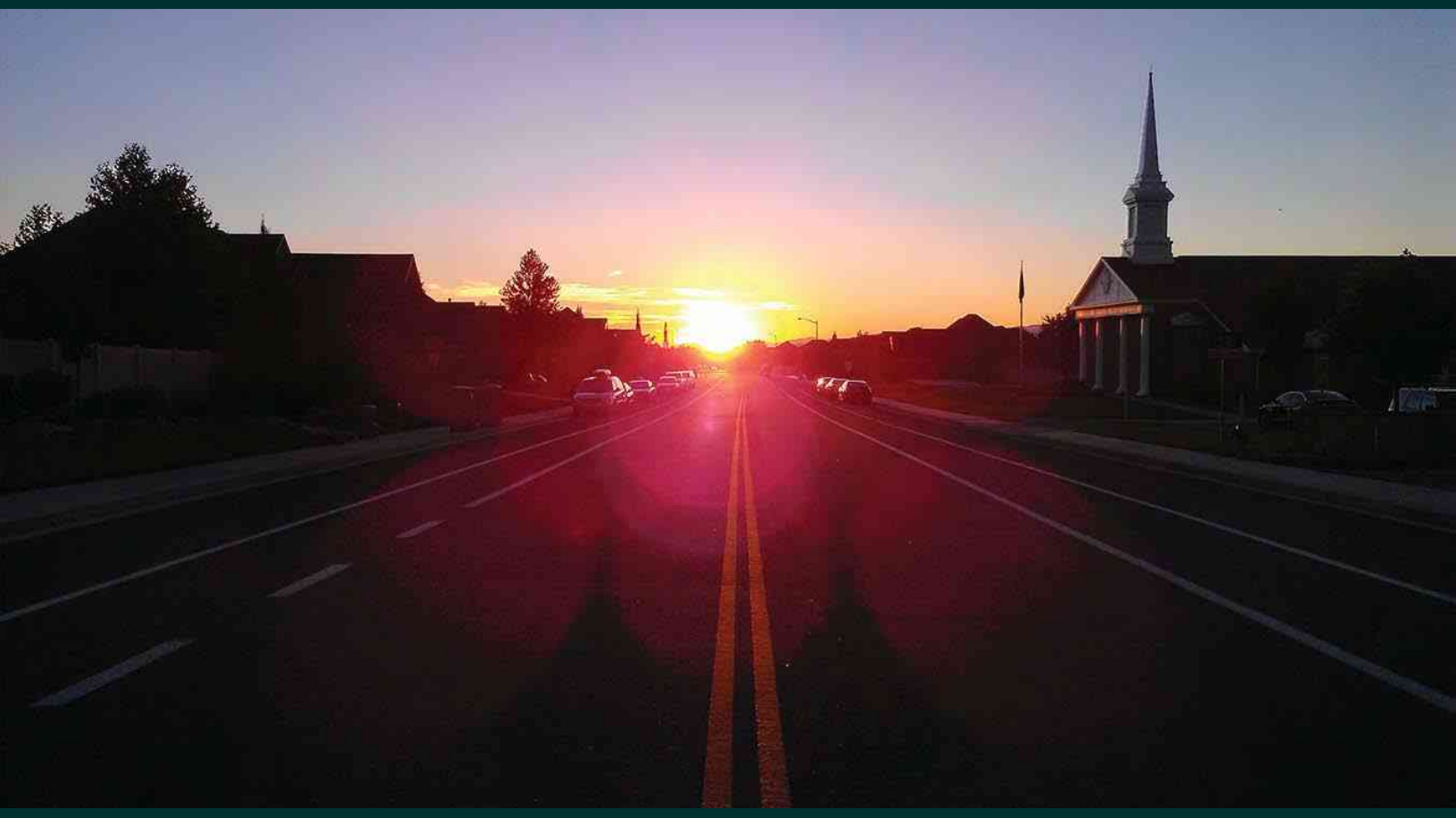
SPRINGVILLE CITY

TRANSPORTATION MASTER PLAN



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2020

GLOSSARY OF TERMS

AASHTO	American Association of State Highways and Transportation Officials
ADA	Americans with Disability Act
ADT	Average Annual Daily Traffic
BRT	Bus Rapid Transit
CFP	Capital Facilities Plan
FHWA	Federal Highway Administration
GOPB	Governor's Office of Planning and Budget
HCM	Highway Capacity Manual
HOA	Home Owners Association
IFFP	Impact Fee Facilities Plan
ITE	Institute of Transportation Engineers
LOS	Level of Service
LRTP	Long Range Transportation Plan
MAG	Mountainland Association of Governments
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
RTP	Regional Transportation Plan
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TAZ	Traffic Analysis Zone
TCM	Traffic Calming Measures
TDM	Travel Demand Model
TIP	Transportation Improvement Program
TIS	Traffic Impact Study
TMP	Transportation Master Plan
TransPlan40	MAG Regional Transportation Plan
TRAX	Transit Express (light rail)
TRB	Transportation Research Board
UDOT	Utah Department of Transportation
UTA	Utah Transit Authority

EXECUTIVE SUMMARY

2020 Update

The Springville Transportation Master Plan (TMP) was updated in 2020 to include updates to the following areas:

- **Update of 2040 Roadway Network to incorporate the MAG TransPlan 50 updates**
- **Update to Capital Facilities Plan Project List**

Springville City, founded in 1850, has experienced significant growth and development in recent years with growth of approximately 17,500 residents since 1990. With Springville City committed to continued growth, it is projected that the population in 2040 will be around 58,000. A Transportation Master Plan (TMP) has been implemented so the transportation system can accommodate the projected growth in the City for the year 2040.

As part of the plan, the current roadway network was assessed using existing traffic volumes. Traffic volumes were projected to the year 2040 using the current roadway network to find the capacity improvements necessary for the roadway network to positively contribute to the economic and community development in Springville City. The following sections are included in the Springville City TMP.

Roadway Network

In order to have an effective transportation system, the City requires a connected street system. A connected system decreases traffic congestion, commute times, emergency response times, etc. Roadways share two functions: mobility and land access. These two functions share an inverse relationship, meaning a roadway with high mobility has minimal land access points and a roadway with low mobility has frequent land access points. Roadway classifications are implemented in a connected roadway network to designate the amount of mobility and land access the roadway will have. The following roadway classification system is used in Springville City: Freeway, Major Arterial, Major Collector, Minor Collector, Commercial Local, and Local Street. These classifications range from most mobile and least land access points (Freeway) to least mobile with frequent land access points (Local Street), creating a hierarchy in the roadway system. Intersections are used in the roadway system to allow for the progression from high mobility to low mobility. Freeways connect with Arterial Streets, which connect with Collector Streets, which connect with Local Streets. Correct use of all roadway functional classifications within the city allows for a successful, connected roadway system.

To measure the performance of a roadway, Level of Service (LOS) is used. LOS, as defined by the Highway Capacity Manual (HCM), determines the level of congestion on a roadway segment or intersection. To measure LOS, a roadway segment is assigned a letter grade A through F where A

represents free flowing traffic and F represents grid lock. LOS is measured on a roadway segment using its daily traffic volume and at an intersection based on the average delay per vehicle. The LOS of a roadway segment or intersection is used to determine if capacity improvements are necessary. In Springville City, the standard for LOS is LOS D or better.

As part of the TMP, data was collected for the existing roadway network and a LOS was determined for each major roadway segment and major intersection. The existing traffic volumes were projected to 2040 using the Mountainland Association of Governments (MAG) travel demand model (TDM). MAG is a collaboration of local government and community members from Utah, Summit and Wasatch Counties in Utah tasked with regional transportation planning. Adjustments to the MAG travel demand model were made based on socioeconomic data and the City's land use plan. Projected 2040 traffic was first modeled for the no-build scenario. Typically, the no-build scenario acts as a guide for roadway capacity inefficiencies that will need to be improved by 2040. Using the no-build scenario as a base for roadway capacity improvements, the projected 2040 traffic was modeled using the MAG model. The segments with LOS E or worse with the 2040 projected traffic volumes will be recommended for capacity improvements to achieve acceptable LOS.

Alternative Modes of Transportation

This TMP discusses alternative modes of transportation. Currently, the transit service in Springville City is operated by the Utah Transit Authority (UTA). UTA offers services such as commuter rail, light rail, bus, bus rapid transit (BRT), ski buses, and van share. Currently, transit service in Springville City is limited to bus services. The MAG long range plan calls for more transit service in Springville City as well as the addition of the FrontRunner commuter rail as it continues to develop.

Non-motorized modes of transportation include pedestrians and bicycles. Included in this TMP are discussions for safe pedestrian and bicycle facilities and planned future bike lanes and trails in Springville.

Other Elements of the Transportation Master Plan

This section is a discussion of the other elements included in the TMP. There is a discussion describing the appropriate use of Traffic Impact Studies (TIS) prior to development. A TIS assesses the impacts to the roadway system due to new development, which helps the City prepare for the impacts to the roadway network caused by the development. Another discussion included in the TMP is Intelligent Transportation Systems (ITS). ITS refers to the increased use of technology and communication methods to improve traffic operations. Specifically, the use of ITS to improve traffic signal performance. The other elements discussed in this section are Access Management, Travel Demand Management, Safety, Intersection Improvements, Americans with Disabilities Act (ADA), and Corridor Preservation.

Capital Facilities Plan

A Capital Facilities Plan (CFP) outlines all improvements necessary to provide Springville City with an adequate roadway system in 2040 based on the projected 2040 traffic volumes. This plan is updated by the City as project scopes change and development occurs. As part of the TMP, a Transportation

Improvement Plan (TIP) is included that outlines all the projects necessary to accommodate future traffic volumes. It is expected that the total cost of roadway improvements necessary to accommodate 2040 growth for Springville City is approximately **$463,650,260.**

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INTRODUCTION

2020 Update

The Springville Transportation Master Plan (TMP) was updated in 2020 to include updates to the following areas:

- **Update of 2040 Roadway Network to incorporate the AMG TransPlan 50 Updates**
- **Update to Capital Facilities Plan Project List**

Overview

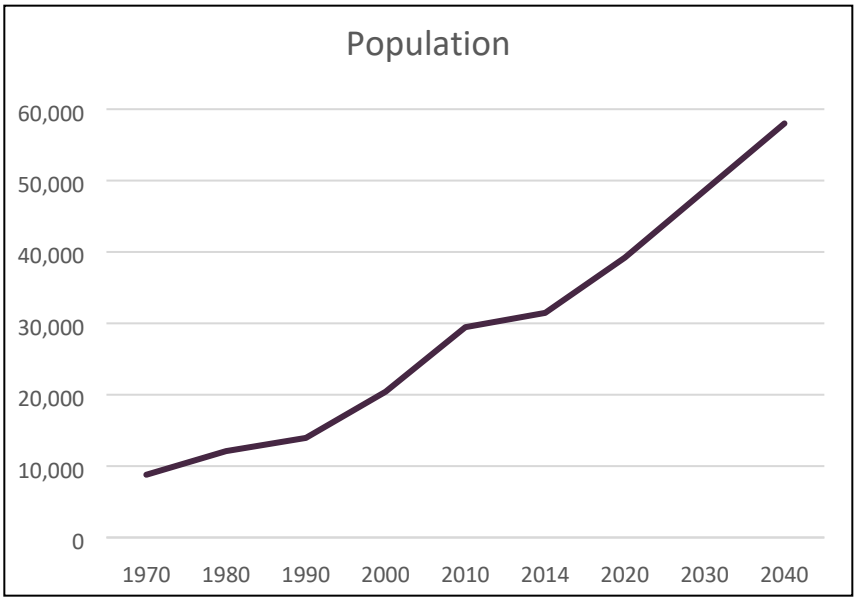
Springville City is a rapidly growing community located in the middle of Utah County. It is bordered by Provo on the north, the Wasatch Mountains on the east, Mapleton and Spanish Fork on the south, and Palmyra and Utah Lake on the west. Springville has a mix of agricultural, commercial, residential, and industrial areas. The city is bisected by I-15, with most of the city being located east of I-15, giving it good access to the rest of the state. A map of Springville and the surrounding areas is shown in **Figure 2**.

Springville and the surrounding communities have experienced a significant amount of growth and development over the last several years, and this growth is expected to continue in the future, as shown in **Figure 1**. The population in Springville is expected to approximately double from 2010 to 2040.

Table 1: Springville Population

Year	Population
1970	8,790
1980	12,101
1990	13,950
2000	20,424
2010	29,466
2014	31,464
2020	39,214
2030	48,609
2040	58,004

Figure 1: Projected Population



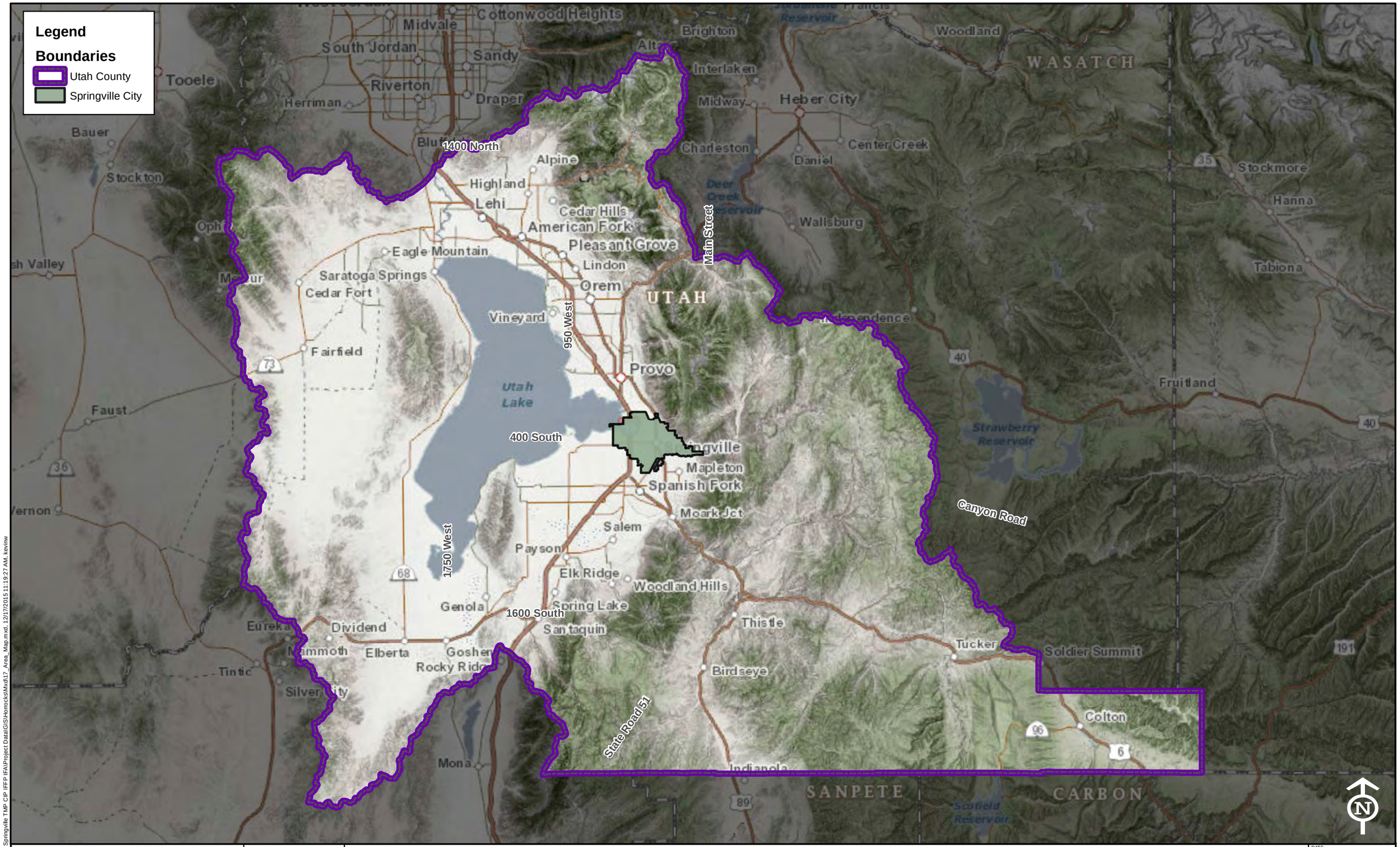
In order to keep up with this projected growth, a comprehensive transportation plan must be developed and regularly updated. The purpose of this plan is to incorporate the goals of Springville City regarding the transportation systems within their jurisdiction including regional facilities maintained by the Utah Department of Transportation (UDOT), Utah Transit Authority (UTA), Utah County, and all neighboring communities.

History

First explored by Father Escalante, a Jesuit Priest, in 1776, Springville was originally settled by eight pioneer families in 1850. It was first called Hobble Creek by the early pioneers because their horses were often hobbled (by loosely tying their front feet together) and left along the stream to graze in the lush grass. If the horses wandered into the creek, the hobbles came off in the water. Thus, the settlement earned its original name. Later as the town grew, the name was changed to Springville, but the canyon stream and golf course have retained the name of Hobble Creek.

Springville is known as "Art City" due to its strong development of the arts. Springville is home to the Springville Museum of Art, Utah's oldest museum for the visual fine arts. The museum showcases a variety of collections local and other well-known artists.

Springville is a thriving community which has experienced steady growth over the past 10 years. As shown in **Table 1** and **Figure 1**, a large growth rate is projected in Springville through 2040 in line with the expected future expansion of its commercial, office, retail and industrial sectors along the I-15 Corridor.



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Springville Transportation Master Plan

Springville City Area Map

5 0 5 Miles

DATE 12/17/2015
DRAWN KJC

Figure 2

ROADWAY NETWORK

Transportation planning in the region is a cooperative effort of state and local agencies. All urbanized areas throughout the country are separated into areas called Metropolitan Planning Organizations (MPO), where the responsible agency coordinates transportation planning for the area. The MPO for Utah, Summit and Wasatch Counties is called the Mountainland Association of Governments (MAG). MAG became the MPO for these counties in 1972. Included in this section is an inventory of existing conditions as well as the projected future conditions in 2040.

Existing Conditions

Before projecting traffic into the future, a thorough documentation of the city's existing conditions is necessary. Accurate data within the existing roadway network will ensure that the future traffic projections are as accurate as possible. It also helps evaluate the existing transportation system to address needs within the City. The existing roadway network in Springville City is found in **Figure 4**. The data collected for this TMP update includes:

- **Key Roadway Traffic Volumes**
- **Socioeconomic Conditions**
- **Land Use and Zoning**
- **Roadway Classifications/Widths/Cross Sections**
- **Public Transit Routes**
- **Bicycle/Pedestrian Trails**

This data forms the basis for analyzing the existing transportation system, as well as providing the foundation to project future traffic conditions.

Existing Socioeconomic Conditions

Socioeconomic data used in the transportation analysis was obtained from the City and the Mountainland Association of Governments (MAG). MAG involves Utah, Summit, and Wasatch counties. When estimating future traffic on roadways throughout the county, MAG uses a travel demand model (TDM) that uses specific inputs based on population, existing and future land use, as well as socioeconomic data. This model will be referenced throughout the document as the MAG Travel Demand Model or TDM.

To generate future traffic, the area is split into areas known as Traffic Analysis Zones (TAZ). Each TAZ uses the land use and socioeconomic data to determine how many vehicle trips begin and end within the zone. The MAG Travel Demand Model focuses on traffic on a regional level and has large TAZs. The MAG regional travel demand model was modified within Springville with smaller TAZs to more accurately estimate the travel demand within the City.

Street System

Streets provide for two distinct and competing functions: mobility and land access. As mobility increases, land access decreases and vice versa as shown in **Figure 3**. Both functions are vital and no trip is made without both. In Springville, street facilities are classified by the relative amounts of through and land-access service they provide. There are four primary classifications, with detailed descriptions in **Table 2**:

Local Streets – *Local facilities primarily serve land-access functions. Local Street design and control facilitates the movement of vehicles onto and off the street system from land parcels. Through movement is difficult and is discouraged by both the design and control of this facility.*

Collectors – *Collector facilities, the "middle" classification, are intended to serve both through and land-access functions in relatively equal proportions. For long through trips, such facilities are usually inefficient, nevertheless they are frequently used for shorter through movements associated with the distribution and collection portion of trips.*

Arterials – *Arterial facilities are provided to primarily serve through-traffic movement. While some land-access service may be accommodated, it is clearly a minor function. All traffic controls and the facility design are intended to provide efficient through movement.*

Freeways and Expressways – *Freeway and expressway facilities are provided to service long distance trips between cities and states. No land access is provided by these facilities.*

Roadway functional classification does not define the number of lanes required for each roadway. For instance, a collector street may have two or four lanes, whereas an arterial street may have up to nine lanes. The number of lanes is a function of the expected traffic volume on the roadway and serves as the greatest measure of roadway capacity. The roadway network in **Figure 4** is separated into functional classes by access as well as number of lanes.

Figure 3: Mobility vs. Access by Functional Classification

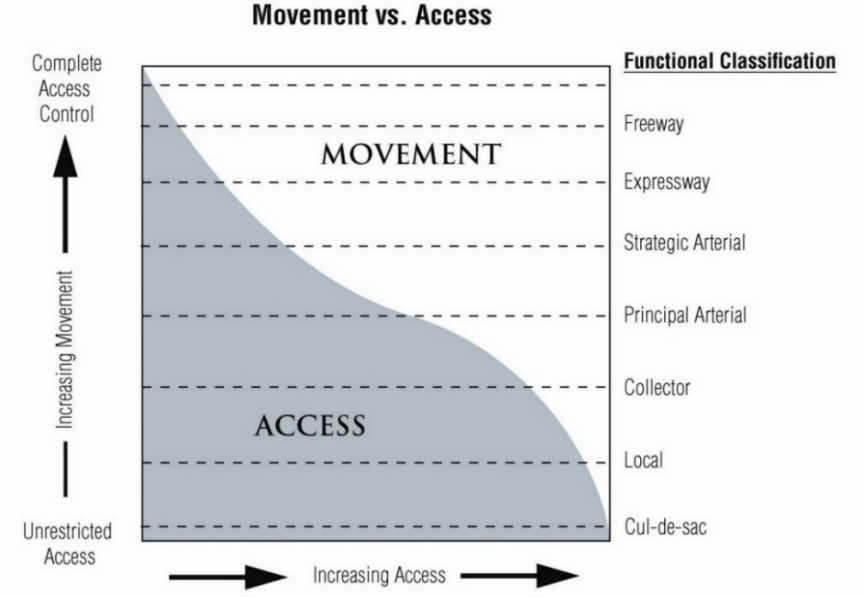

Table 2: Street Functional Classification

Characteristic	Functional Classification			
	Freeway and Expressway	Arterial	Collector	Local Street
Function	Traffic movement	Traffic movement, land access	Collect and distribute traffic between streets and arterials, land access	Land access
Typical % of Surface Street System Mileage	Not applicable	5-10%	10-20%	60-80%
Continuity	Continuous	Continuous	Continuous	None
Spacing	4 miles	1 mile	Major Collector ½ Mile Minor Collector ⅛ - ¼ Mile	As needed
Typical % of Surface Street System Vehicle-Miles Carried	Not applicable	40-65%	10-20%	10-25%
Direct Land Access	None	Limited: Major Generators Only	Restricted: Some movements prohibited; number and spacing of driveways controlled	Safety controls access
Minimum Roadway Intersection Spacing	Approximately 1 Mile	Approximately ½ Mile	300 feet – ¼ Mile	150 Feet
Speed Limit	55-75 mph	40-50 mph in fully developed areas	30-40 mph	25 mph
Parking	Prohibited	Discouraged	Limited	Allowed
Comments	Supplements capacity of arterial street system & provides high-speed mobility	Backbone of Street System		Through traffic should be discouraged

Roadway Cross Sections

The typical cross-sections for each functional classification in Springville were updated. Ranges for Right of Way (ROW) width as well as pavement width for each functional classification are included in **Table 3**. It is important for Springville to use specific values for each cross-section for future development. The cross-sections can be found in **Appendix A: Typical Cross-Sections**. As these are newly developed cross-sections, the existing roadway network in **Figure 4** may not reflect the new cross-sections. All roadways in **Figure 4** highlighted in grey are not built to the standards outlined in **Table 3**. These will be addressed as "Incomplete Street" projects as part of this TMP. All new roadways will be built to these standards.

Table 3: Cross-Sections in Springville

Functional Classification	Number of Lanes	Right-of-Way (ROW)
Principal Arterial	7	118'
Major Arterial with Trail	5	107'
Major Arterial	5	102'
Minor Collector with 10' Trail	3	77'
Minor Collector	3	72'
Minor Collector	2	72'
Commercial Local	2	67'
Residential Local	2	59'
Country Lane	2	38'

Legend

Intersections

- Signalized Intersection
- JCT Interchange
- Roundabout
- Existing, RR Crossing

Existing Roadway Network

- Principal Arterial
- Major Arterial
- Minor Collector
- Commercial Local
- Freeway
- Incomplete Roads
- CityBoundary
- Railroads

1400 North
Springville
Main Street
950 West
400 South
Springville
1750 West
Canyon Road
1600 South
Slant Road
Maple St
Main St
Spanish Fork-Springville-Woodhouse Field
Spring Acres Arts Park
Eagle Rock Park
Hobble Creek
Community Park
Three Sisters 6710 Feet
Round Peak 5535 Feet
Paint 5538 Feet

N

O:\12018\UT-1241-1806 Springville TMP\FFP 2018 Update\Project Data\GIS\Horrocks\Mxd\TMP Figures\Figure 04 - Existing Functional Class.mxd, 8/13/2020 5:40:59 PM, shane.eller

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Springville Transportation Master Plan

Existing Functional Class

0.5 0 0.5 Miles

DATE 8/13/2020
DRAWN KJC
Figure 4

Existing Traffic Volumes and Level of Service

The adequacy of an existing street system can be quantified by assigning Levels of Service (LOS) to major roadways and intersections. As defined in the Highway Capacity Manual (HCM), a document published by the Transportation Research Board (TRB), LOS serves as the traditional form of measurement of a roadway's functionality. The TRB identifies LOS by reviewing elements, such as the number of lanes assigned to a roadway, the amount of traffic using the roadway and the time of delay per vehicle traveling on the roadway and at the intersections. Levels of service range from A (free flow where users are virtually unimpeded by other traffic on the roadway) to F (traffic exceeds the operating capacity of the roadway).

Roadway Level of Service

Roadway LOS is used as a planning tool to quantitatively represent the ability of a particular roadway to accommodate the travel demand. LOS D is approximately 80 percent of a roadway's capacity and is a common goal for urban streets during peak hours. Peak hours during the day usually occur from 6:00 AM to 8:00 AM in the morning and 4:00 PM to 6:00 PM in the evening. Typically, the PM peak hours have the highest traffic volumes. LOS D was adopted by the Springville City Council with the general plan for system streets (collectors and arterials) as acceptable for future planning and was used in this TMP. Attaining LOS C on these streets would be potentially cost prohibitive and may present societal impacts, such as the need for additional lanes and wider street cross-sections. LOS D suggests that for most times of the day, the roadways will be operating at well below capacity. During peak times of day, the roadway network will likely experience moderate congestion characterized by a higher vehicle density and slower than free flow speeds. **Table 4**, **Table 5**, and **Table 6** were used as guides for quantifying LOS, and, subsequently the conditions of each of the major roadways in the City are based on HCM principles and regional experience. A four-lane freeway facility can accommodate 70,000 vehicles per day at LOS D; adding two additional lanes will increase this threshold by 40,000 vehicles to 110,000 vehicles per day. Arterial streets can handle significantly less traffic at LOS D; a seven-lane arterial (6 travel lanes and one center turn lane) can only accommodate approximately 50 percent of the traffic of a freeway of similar lane configuration (55,000 versus 110,000). Similarly, much capacity is lost when reducing the number of arterial lanes by one in each direction, which results in a 17,700 vehicle per day reduction in LOS D capacity. Collector streets are designed at lower speeds than arterials in order to be less intrusive and are not as strictly access-controlled. Again, this results in a loss of capacity when compared to arterial streets. A three-lane collector street will be able to move 1,700 less vehicles per day than a three-lane arterial street.

Special consideration is needed to determine the capacity of 2 lane collector streets. There are many factors which determine the capacity for roadways. One factor considered is livability. 2 lane Collector streets typically include on street parking, many driveways as well as significant amounts of pedestrian and bicyclist activity. The number of driveways and conflicts due to pedestrians and bicyclists cause increased delay as traffic volumes increase since left turning vehicles do not have a turn lane. To ensure adequate traffic flow, the LOS D capacity for a 2-lane collector is 9,700 vehicles per day. For this reason, Springville has a 2 lane and 3 lane Minor Collector roadway which fit within the same Right-of-Way and pavement width (as shown in **Table 3** and **Appendix A: Typical Cross-Sections**) to minimize the cost to increase lane capacity as traffic volumes grow.

Table 4: Suburban Freeway LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
4	60,000	70,000	89,000
6	95,000	110,000	140,000

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Table 5: Suburban Arterial LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
3	12,400	15,100	17,700
5	28,500	32,800	40,300
7	43,000	50,500	63,400

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Table 6: Suburban Collector LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
2	9,700	12,100	14,500
3	10,800	13,400	16,100
5	23,100	26,900	33,900

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Intersection Level of Service

Whereas roadway LOS considers an overall picture of a roadway to estimate operating conditions, intersection LOS looks at each individual movement at an intersection and provides a much more precise method for quantifying operations. Since intersections tend to be a source of bottlenecks in the transportation network, a detailed look into the delay at each intersection should be performed on a regular basis. The methodology for calculating delay at an intersection is outlined in the *Highway Capacity Manual* and the resulting criteria for assigning LOS to signalized and un-signalized intersections are outlined in **Table 7**. As in the case with roadways, LOS D is considered the industry standard for intersections in an urbanized area. LOS D at an intersection corresponds to an average control delay of 35-55 seconds per vehicle for a signalized intersection and 25-35 seconds per vehicle for an un-signalized intersection.

At a signalized intersection under LOS D conditions, the average vehicle will be stopped for less than 55 seconds. This is considered an acceptable amount of delay to experience during the times of the day when roadways are most congested. As a general rule, traffic signal cycle lengths (the length of time it takes for a traffic signal to cycle through each movement in turn) are kept below 90 seconds. An average delay of less than 55 seconds suggests that in most cases, vehicles will not have to wait more than one cycle before proceeding through an intersection.

Un-signalized intersections are generally stop-controlled. In areas where there is a major street, the intersection may be two-way stop-controlled where the minor street traffic must stop. In cases where traffic volumes are more evenly distributed or where sight distances may be limited, four-way stop-controlled intersections are common. LOS for an un-signalized intersection is assigned based on the average control at the worst approach (always a stopped approach) of the intersection. An un-signalized

intersection operating at LOS D means that the average vehicle waiting at one of the stop-controlled approaches will wait no longer than 35 seconds before proceeding through the intersection. This delay may be caused by large volumes of traffic on the major street resulting in fewer gaps in traffic for a vehicle to turn into, or from queued vehicles waiting at the stop sign.

Table 7: Signalized and Unsignalized Intersection LOS Criteria

Level of Service	Signalized Intersections Average Control Delay (sec/veh)	Unsignalized Intersections Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Note: LOS for unsignalized intersections is measured for the worst approach only

Existing Operating Conditions

Using the methodologies above, the LOS for the existing network was found. The results are shown in **Figure 5** with acceptable roads and intersections represented in green and unacceptable roads represented in red. Roadways represented in yellow signify an acceptable roadway or intersection at LOS D. Roadways and intersections presently operating at LOS D have been included to alert the City to areas where mitigation efforts may be needed in the near future. The following roadways from **Figure 5** are at LOS D or experience unacceptable conditions currently:

LOS D (Acceptable)

- **1400 North** (I-15 to 1100 West)
- **Main Street** (1400 North to Center Street)
- **400 South** (Brookside Drive to Canyon Road)

LOS E or Worse (Unacceptable)

- **400 South** (Main Street to Brookside Drive)
- **400 South & Main Street** (Traffic Signal)

Numbers Shown are Average Daily Traffic (24 Hours)

Legend

- Signalized Intersection
- Unacceptable Signalized Intersection
- JCT Interchange
- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or F)
- CityBoundary

1400 North
Springville
Main Street
950 West
400 South
Springville
1750 West
1600 South
Canyon Road
State Road 51
Maple St
Main St
Hobble Creek
Community Park
Spanish Fork-Springville-Woodhouse Field
Spring Acres Arts Park
Eagle Rock Park
Three Sisters 6716 Feet
Round Peak 6515 Feet
Point 5537 Feet

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Springville Transportation Master Plan

Existing Level of Service

0.5 0 0.5 Miles

DATE 8/13/2020
DRAWN KJC
Figure 5

Future Conditions

Future Socioeconomic Conditions

The majority of the projected socioeconomic data used in this study comes from the MAG travel demand model, which is based on the best available statewide data provided by the Governor's Office of Planning and Budget (GOPB). This data was supplemented and verified using the data provided by the City in the form of the adopted Land Use Plan shown in **Figure 6**. The current zoning map for Springville includes a variety of uses, including agriculture, residential, industrial manufacturing, commercial, and business. The information provided is considered the best available for predicting future travel demand. However, land use planning is a dynamic process and the assumptions made in this report should be used as a guide and should not supersede other planning efforts particularly when it comes to localized intersections and roadways.

Transportation planning in the region is a cooperative effort of state and local agencies. MAG is responsible for coordinating this transportation planning process in the Summit, Wasatch, and Utah County urbanized areas as the designated Metropolitan Planning Organization (MPO). Metropolitan Planning Organizations are agencies responsible for transportation planning in urbanized areas throughout the United States. The Governor designated MAG as the Metropolitan Planning Organization for Utah County, Summit County, and Wasatch County.

Travel Model Development

Projecting future travel demand is a function of projected land use and socioeconomic conditions. The MAG Travel Demand Model was used to predict future traffic patterns and travel demand. The travel demand model was modified to reflect better accuracy through the Springville area by creating smaller TAZs and a more accurate and extensive roadway network. Existing conditions were simulated in the travel demand model and compared to the observed traffic count data to get a reasonable base line for future travel demand. Once this effort was completed, future land uses and socioeconomic data was input into the model to predict the roadway conditions for the design year 2040. 2040 was selected as the design year in order to be consistent with the MAG planning process. The 2040 Metropolitan Transportation Plan, TransPlan40, (available at www.mountainland.org) was adopted by the Mountainland MPO Regional Planning Committee in 2016. TransPlan40 is a guide to maintain and enhance the regional transportation system for urbanized Utah County.

General Plan Land Use

NOT TO SCALE

Legend

General Plan Land Use

- AG
- CEMETERY
- CHURCH
- COM
- COM-RES
- IND-MAN
- LDR
- MDR
- MHDR
- MIX
- MLDR
- PARK
- SCHOOL

Projected Traffic Volumes and Conditions

The resulting outputs of the travel demand model were made up of traffic volumes on all of the classified streets in the City and surrounding area. This data was used to identify the need for future roadway improvements to accommodate the projected growth in the City. The following two scenarios were analyzed in detail to assess the travel demand and resulting network performance in the City:

- No-Build
- Recommended Roadway Network
    - MAG Regional Transportation Plan (TransPlan40)
    - Additional Projects

No-Build Conditions

A no-build scenario is intended to show what the roadway network would be like in the future if no action were taken to improve the City roadway network. The travel demand model was again used to predict this condition by applying the future growth and travel demand to the existing roadway network. As shown in **Figure 7**, if no improvements are made to Springville's transportation infrastructure, projected traffic volumes for the planning year 2040 will significantly worsen the LOS of many of the major streets and intersections throughout the city. The following list includes the streets expected to perform at LOS D or worse:

LOS D (Acceptable)

- **1400 North** (1200 West to Main Street)
- **Main Street** (Northern Border to 1400 North)
- **Center Street** (Main Street to 700 East)
- **400 South** (I-15 to 1750 West)
- **400 South** (Western Border to 2600 West)
- **400 South** (Brookside Drive/800 East to Canyon Road)
- **Canyon Road** (400 South to 1700 East)
- **1600 South** (1200 West to 950 West)
- **950 West** (400 South to Center Street)
- **2600 West** (Center Street to Southern Border)
- **SR-51** (5400 South to Southern Border)

LOS E or Worse (Unacceptable)

- **1400 North** (I-15 to 1200 West)
- **1200 West** (Northern Border to Spring Creek Road)
- **Main Street** (1400 North to 700 South)
- **950 West** (550 North to Center Street)
- **400 South** (2600 West to I-15 & 1750 West to Brookside Drive/800 East)
- **1600 South** (1750 West to 1200 West)
- **State Street (SR-51)** (1600 South to 5400 South)
- **1400 North (SR-75) & 1750 West** (Traffic Signal)
- **1400 North (SR-75) & 1100 West** (Traffic Signal)
- **Center Street & 400 East** (Stop Controlled Intersection)
- **400 South & 2600 West** (Stop Controlled Intersection)

- **400 South & 950 West** (Traffic Signal)
- **400 South & Main Street** (Traffic Signal)
- **400 South & 400 East** (Traffic Signal)
- **1600 South & 1750 West** (Stop Controlled Intersection)
- **1600 South & State Street** (Stop Controlled Intersection)
- **State Street & Evergreen Drive** (Stop Controlled Intersection)
  Canyon Road & 620 East (Stop Controlled Intersection)
- **900 South & 800 East** (Stop Controlled Intersection)
- **900 South & 1350 East** (Stop Controlled Intersection)

Based on the number of roadways at LOS D and worse, there are a significant amount of capacity improvements necessary for 2040.

Recommended 2040 Roadway Conditions

Improvements will need to be made as growth continues in Springville in order to preserve the quality of life and to maintain an acceptable LOS on city streets and intersections. These improvements will also provide a sound street system that will support the city's growing economic base.

Signals will also need to be monitored and updated as conditions change. It is recommended that the signalized intersections in the city be regularly monitored and signal timings adjusted as needed to maintain acceptable operating conditions. Additionally, care should be taken to regularly monitor the non-signalized intersections in the city and, where appropriate, studies should be completed to determine the best mitigation for the intersection. The most common mitigations to failing non-signalized intersections are roundabouts and traffic signals. For each intersection, both roundabout and traffic signal mitigations should be investigated and studied to determine the best alternative. Funding sources for signals and roundabouts should be explored and may include general funds, impact fees, where appropriate, and/or a special transportation improvement fund.

The future analysis in Springville can be split into two sections. The first are regional projects included in MAG's TransPlan40. These projects may be funded by MAG with a 6.77% match by Springville. After determining where the improvements occur after the addition of the MAG projects, the second section includes the rest of the projects necessary to improve the roadway network to LOS D or better.

Regional Transportation Plan

Springville is not alone in improving the roadway network. MAG, in cooperation with UDOT, provides financial assistance for projects included in their Regional Transportation Plan (RTP) as shown in **Figure 8**. If the roadway is included on the RTP and is owned and operated by UDOT, full financial responsibility falls to UDOT. It is important for Springville to include these projects in this TMP as well as coordinate with UDOT to ensure these projects are implemented. If the roadway is on the RTP and not owned by UDOT, Springville must match 6.77% of the project cost. The projects in Springville included on the RTP are shown in **Figure 8** and the following is a list of the RTP projects to be completed in various phases and an interactive map can be viewed on MAG's website ***www.mountainland.org***:

Phase 1 (2015-2024)

- **Springville 1200 West**
  - Provo 1860 South to US-6
  - New 5 lane road (widen existing portions)
- **Springville 1400 North**
  - I-15 Freeway to Springville Main Street
  - Widen to 5 lanes, 2 bridges reconstructed, add trail
- **Springville 400 South**
  - I-15 Freeway to 2600 West (Spanish Fork Main Street)
  - Widen to 5 lanes
- **Springville 400 South**
  - Springville Main Street to 400 East
  - Widen to 4 lanes, additional turn lanes at Main Street
- **Springville Main Street/US-89/SR-51 Interchange**
  - Reconstruct interchange
- **I-15/Springville 1600 South/Spanish Fork 2700 North Interchange**
  - New Interchange
- **Springville 1600 South/ Spanish Fork 2700 North**
  - Spanish Fork Main Street to US-89
  - New and widen to 4 lanes, new railroad bridges

Phase 3 (2035-2040)

- **Springville 400 South**
  - I-15 Freeway to Springville 950 West
  - Widen to 6 lanes

To indicate the impacts of the RTP projects, these projects from **Figure 8** were added to the future travel demand model to determine how the roadway network improves. This is necessary as major roadway changes will occur in Springville, specifically the new interchange at 1600 South and I-15. Since this interchange will attract traffic serving the southern half of the City, the vehicles currently using 400 South will use 1600 South to travel east/west through Springville.

Only the RTP projects were added to the travel demand model. The LOS is represented in **Figure 9** and the following roads perform at LOS D or at LOS E or worse.

LOS D (Acceptable)

- **400 South** (I-15 to Main Street)
- **1100 West** (Northern Border to 1400 North)
- **Canyon Road** (400 South to 1700 West)

LOS E or Worse (Unacceptable)

- **Main Street** (Northern Border to 400 South)
- **State Street** (SR-51) (1600 South to Southern Border)
- **Center Street & 400 East** (Stop Controlled Intersection)
- **400 South & 400 East** (Traffic Signal)
- **State Street & Evergreen Drive** (Stop Controlled Intersection)

Additional Projects

The improvements for the roadways at LOS E or worse from the RTP LOS map (**Figure 9**) need to be addressed by the City and incorporated into this TMP in order to receive any additional funding where possible. **Figure 9** acts as a base to plan additional projects not included in the MAG RTP. These projects along with improvement projects that need to be addressed are those of connectivity, frontage roads, crossings and traffic signals make up the additional projects necessary to maintain an acceptable level of service. **Figure 10** shows all the additional projects included in the TMP. A full projects list is shown in **Table 8** on page 39.

Legend

- Unacceptable Intersection
- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or F)
- CityBoundary

31,700 | 6,900 | 18,200 | 14,700 | 37,700 | 10,400 | 5,500 | 39,400 | 22,900 | < 3,000 | 3,400 | < 3,000 | 4,700 | 7,100 | 7,600 | < 3,000 | 7,100 | 37,800 | 6,000 | 10,500 | 7,300 | < 3,000 | < 3,000 | < 3,000 | 14,900 | 3,000 | 28,500 | < 3,000 | 4,600 | 4,000 | 12,100 | 12,000 | 9,600 | 7,000 | 4,300 | < 3,000 | 10,500 | 5,200 | 3,300 | 11,000 | 5,900 | 3,400 | 17,000 | 39,600 | 44,300 | 38,000 | 28,600 | 17,200 | 16,800 | 11,100 | 6,100 | 3,800 | 3,500 | 21,000 | 5,900 | 3,000 | 38,400 | 8,200 | 4,500 | < 3,000 | 12,800 | 5,100 | 3,800 | 5,700 | 13,200 | 8,000 | 5,000 | 4,800 | < 3,000 | < 3,000 | 10,000 | 7,800 | 7,100 | 21,400 | 6,700 | 15,000 | 12,800 | 8,200 | 17,500 | 6,200 | 4,500 | 6,200 | 18,300 | 3,100 | 12,500

Springville

Spanish Fork-Springville-Woodhouse Field

Maple St

Main St

Hobble Creek

Community Park

Spring Acres Arts Park

Eagle Rock Park

North Park

Three Sisters 6710 Feet

Round Peak 5535 Feet

Ellison 7513 Feet

N

O:\2018\UT-1241-1806.Springville TMP\FFP 2018 Update\Project Data\GIS\Horrocks\Mxd\TMP Figures\Figure 07 - 2040 No Build Level of Service.mxd, 8/13/2020 5:47:32 PM, shane.eller

HORROCKS ENGINEERS

2162 West Grove Parkway
Suite 400
Pleasant Grove, UT 84062
(801) 763-5100

Springville Transportation Master Plan

2040 No Build Level of Service

0.5 0 0.5 Miles

DATE 8/13/2020

DRAWN KJC

Figure 7

Legend

- MAG Phase 1 - Intersection Improvement
- MAG Phase 1 - Interchange Improvement
- MAG Phase 2 - Intersection Improvement
- MAG Phase 2 - Interchange Improvement
- MAG Phase 1 - Capacity Improvement
- MAG Phase 1 - New Road
- MAG Phase 2 - Capacity Improvement
- MAG Phase 2 - New Road
- RTP_2019_HWY
- CityBoundary

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Springville Transportation Master Plan

2040 RTP Projects

0.5 0 0.5 Miles

DATE 8/19/2020

DRAWN TRB

Figure 8

Legend

Type

- Unacceptable Intersection
- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or F)
- CityBoundary

27500 29500 15000 34200 10400 7500 35100 <3000 10000 3500 33800 4000 <3000 32000 4300 3800 10100 10600 8700 <3000 10500 5400 21700 5500 <3000 30900 5100 <3000 6000 19700 45700 30300 17200 13900 11100 6100 13600 10600 16100 16300 4000 6400 3600 <3000 56400 4600 8500 11400 8900 6300 9300 4500 20100 5000 <3000 10400 7100 18400 18100 14400 17900 18000 17000 3900

1400 North

Springville

400 South

1600 South

1750 West

950 West

Main Street

State Road 51

Canyon Road

Hobble Creek

Springville Spanish Fork-Springville-Woodhouse Field

Three Sisters 6,716 Feet

Round Peak 5,515 Feet

Point 5532 Feet

Spring Acres Arts Park

Community Park

Maple St

Main St

Eagle Rock Park

2162 West Grove Parkway
Suite 400
Pleasant Grove, UT 84062
(801) 763-5100

Springville Transportation Master Plan

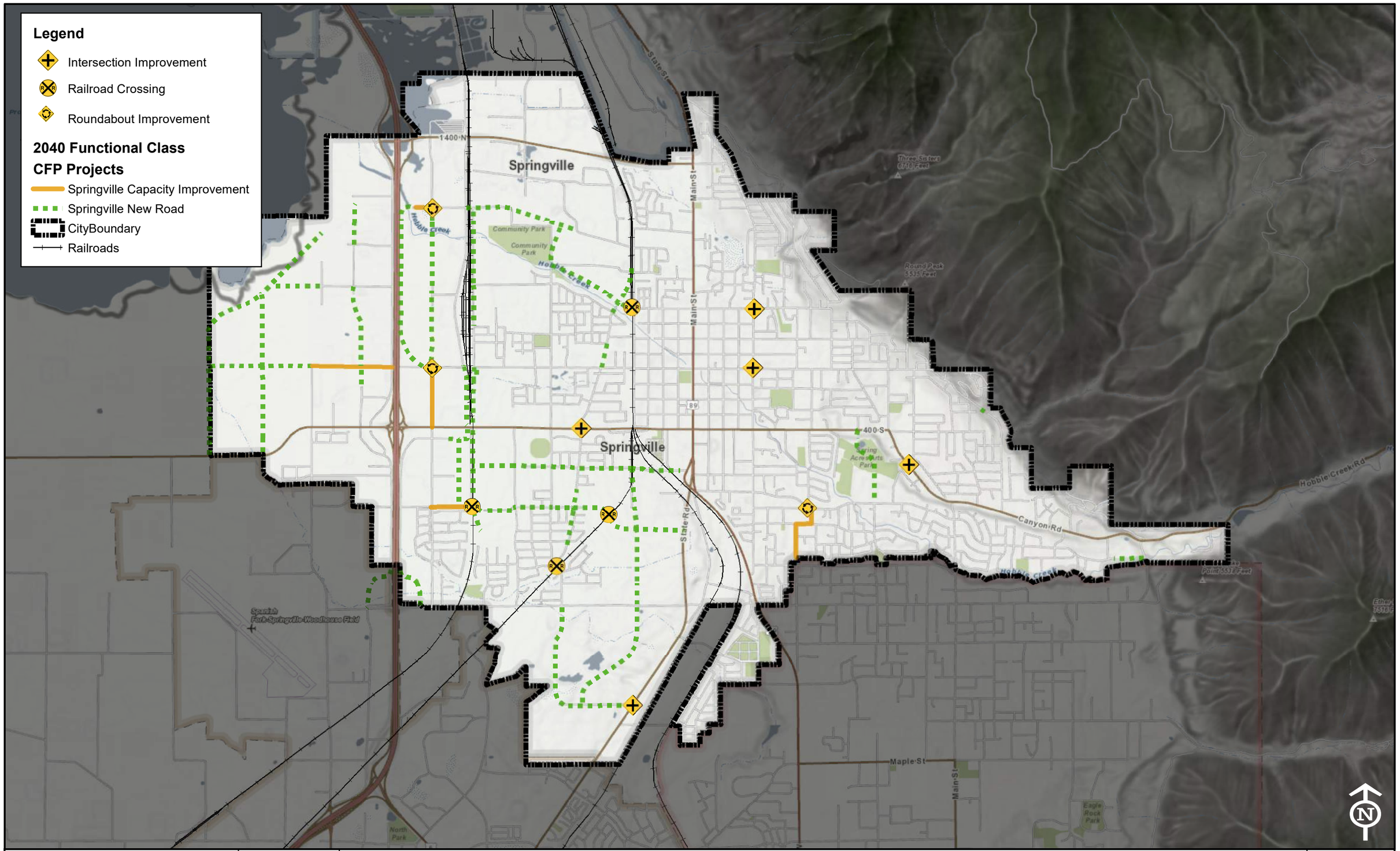
2040 RTP Level of Service

0.5 0 0.5 Miles

DATE 8/13/2020

DRAWN KJC

Figure 9



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Springville Transportation Master Plan

2040 Additional Projects

0.5 0 0.5 Miles

DATE 8/19/2020

DRAWN TRB

Figure 10

With all projects included, **Figure 11** and **Figure 12** show the proposed 2040 roadway network and LOS with all future projects (including MAG RTP projects) respectively. The following roadways perform at LOS D or worse in the 2040 proposed roadway network:

LOS D (Acceptable)

- **1200 West** (Northern Border to 400 South)
- **Main Street** (700 South to 900 North)
- **Center Street** (400 East to 700 East)
- **Canyon Road** (400 South to 1700 East)
- **400 South** (West Frontage Road to 1750 West & 950 West to Main Street)
- **1600 South** (I-15 to 1200 West)

LOS E or Worse (Unacceptable)

- **Main Street** (Northern Border to 900 North)

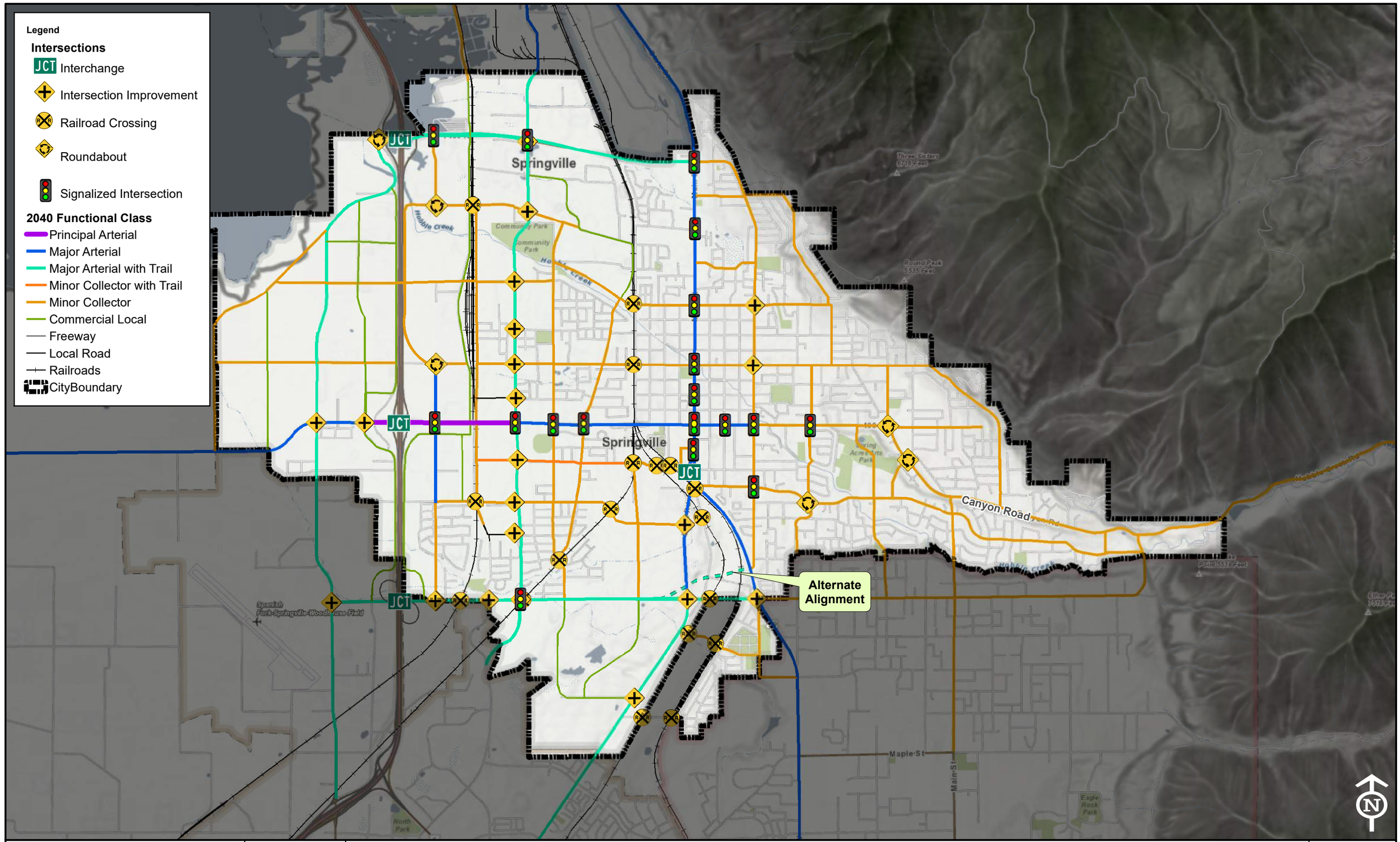
Although the goal of this TMP is to improve the entire roadway network to LOS D or better, there are circumstances where additional lanes are not possible. Main Street is a five lane, UDOT owned corridor with many businesses. To increase to seven lanes would impact all the businesses along the corridor. Therefore, it is not in the best interest of the City to encourage UDOT to widen Main Street and displace the businesses along the corridor.

1200 West Alignment

The alignment for the proposed 1200 West roadway is near the north/south power corridor which runs through the city. The alignment for 1200 West shown on **Figure 11** is an approximate location for the roadway. There are three potential alignments to best serve the future development as well as maintain the proper distance from the power corridor:

- **East of the Power Corridor** (both travel directions east of the power corridor)
- **West of the Power Corridor** (both travel directions west of the power corridor)
- **Both Sides of Power Corridor** (NB lanes to the east and SB lanes to the west of power corridor)

1200 West will be designed in phases based on development within the City. When each phase is built, the location of the roadway will be determined based on the type of development as well as any Right-of-Way constraints due to the power corridor.



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Springville Transportation Master Plan

2040 Build Roadway Network

0.5 0 0.5 Miles

DATE 8/19/2020
DRAWN TRB
Figure 11

Legend

Future Functional Class

- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or Worse)
- CityBoundary

1400 North
Springville
400 South
1600 South
950 West
1750 West
Main Street
Canyon Road
State Road 51
Maple St
Main St
Hobble Creek
Community Park
Spring Acres Arts Park
Eagle Rock Park
Spanish Fork-Springville-Woodhouse Field
Three Sisters 6716 Feet
Round Peak 5535 Feet
Lake Point 5531 Feet

32,500 | 14,800 | 34,100 | < 3,000 | 31,700 | 34,900 | 7,500 | <3,000 | < 3,000 | 9,000 | 28,700 | 8,000 | 32,100 | 5,400 | 6,400 | < 3,000 | 10,500 | 27,100 | < 3,000 | 4,600 | 30,200 | <3,000 | 10,100 | 10,500 | 5,900 | 5,500 | 8,900 | 29,100 | 4,800 | 4,800 | < 3,000 | 16,400 | 45,000 | 30,200 | 13,700 | 10,900 | 5,700 | 4,000 | 30,300 | 6,700 | 4,100 | 9,900 | 10,600 | 16,000 | <3,000 | 3,000 | 5,200 | 8,900 | < 3,000 | 5,700 | 7,800 | 15,100 | 19,700 | 5,100 | 4,900 | 5,300 | 16,700 | 13,300 | 14,100 | 11,200 | < 3,000 | 3,900 | 3,700 | 17,800 | < 3,000

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Springville Transportation Master Plan

2040 Build Level of Service

0.5 0 0.5 Miles

DATE 8/19/2020
DRAWN TRB

Figure 12

Alternative Modes of Transportation

Existing Alternative Transportation Modes

Accommodating alternative modes of transportation is a vital consideration when planning a livable and sustainable community. As a vibrant and growing city, it is important for Springville to continue to plan for improved transit, trails, and pedestrian facilities. These facilities will improve the overall quality of life of the residents while aiding in congestion relief and increasing the lifespan of the City's roadway network.

Pedestrian and Bicycle

Pedestrian and bicycle safety are an important feature of any transportation master plan. People will be more inclined to walk or ride their bicycle when the experience is pleasant, they feel safe, and distances are reasonable. The following descriptions of bicycle-related terms are provided to assist readers who are unfamiliar with bicycle terminology. The terms bicycle and bike are used interchangeably. **Figure 13** shows the existing and future pedestrian and bike paths in Springville.

- **Bikeway** - A thoroughfare suitable for bicycles - it may either exist within the right-of-way of other modes of transportation, such as highways, or along a separate and independent corridor.
- **Bicycle Facilities** - A general term denoting improvements and provisions to accommodate or encourage bicycling, including parking facilities, maps, all bikeways, and shared roadways.
- **Bicycle or Multi-use Path (Bike Path)** - A bikeway physically separated from motorized vehicular traffic and either within the highway right-of-way or within an independent right-of-way. Bike path facilities are often excellent recreational routes and can be developed where right-of-way is available. Typically, bike paths are a minimum of 10 feet to 12 feet wide, with an additional graded area maintained on each side of the path.
- **Bicycle Lane (Bike Lane)** - A portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes are ideal for minor thoroughfares or collectors. Under certain conditions, bike lanes may be beneficial on streets with significant traffic volumes and/or speeds. Under ideal conditions, minimum bike lane width is five feet.
- **Signed Bike Route** - A segment of a system of bikeways designated by appropriate directional and/or informational signs. In this plan, a signed bike route may be a local or residential street, Bicycle Boulevard, an arterial with wide outside lanes, or a roadway with a paved shoulder.
- **Paved Shoulder** - The part of the highway that is adjacent to the regularly traveled portion of the highway, is on the same level as the highway, and when paved can serve as a bikeway. Paved

shoulders should be at least four feet wide, and additional width is desirable in areas where speeds are high and/or a large number of trucks use the roadway.

- **Wide Outside Lane** - An outside (curb) lane on a roadway that does not have a striped bike lane, but is of sufficient width for a bicyclist and motorist to share the lane with a degree of separation. A width of 14 feet is recommended to safely accommodate both motor vehicles and bicycles.
- **Bicycle Boulevard** - A residential street that has been modified for bicyclist safety and access.

The Mountainland Association of Governments, in conjunction with the communities of Springville, Mapleton, Salem, Spanish Fork, Woodland Hills, Elk Ridge, Payson, and Santaquin, is developing an Active Transportation Plan to improve bicycling and walking in South Utah County. The Plan will address walking and biking for both transportation and recreation through improvements to trails and on-street facilities. The Plan began in July 2015 and will be completed by the summer of 2016. The goals of this plan are found online at ***http://bikewalksutahco.com/*** and are listed below:

- **Develop well-used active transportation facilities**
- **Create regional connections and routes**
- **Create collaborative energy and a shared vision between municipalities and others**
- **Develop design and maintenance standards**
- **Institutionalize trails as integral to our growth and future**

Legend

Existing Facilities

- Bike Route
- Paved Trail

MAG RTP Facilities

- Bike Route
- Paved Trail
- CityBoundary

1400 North
Main Street
950 West
Springville
400 South
1750 West
Canyon Road
Mapleton
Spanish Fork
Slant Road
State Rd
Maple St
Main St
Hobble Creek Rd
Three Sisters 6718 Feet
Round Peak 5535 Feet
Rattlesnake Point 5538 Feet
Spanish Fork-Springville-Woodhouse Field
Community Park

O:\2014\PG-103-1409 Springville TMP CIP IFFP IFA\Project Data\GIS\Horrocks\Mxd\13 Trails and Bike Lane Map.mxd, 7/20/2016 8:57:20 AM, kevinc

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(801) 763-5100

Springville Transportation Master Plan

Trails and Bike Lanes Map

0.5 0 0.5 Miles

DATE 7/20/2016
DRAWN KJC

Figure 12

Transit Service

The Utah Transit Authority (UTA) is the provider of public transportation throughout the Wasatch Front. UTA operates fixed route buses, express buses, bus rapid transit (BRT), ski buses, light rail, and commuter rail. In this capacity, UTA is responsible for the operation of the transit network in Springville. It is the responsibility of both Springville and UTA to cooperate to provide transit planning to accommodate alternative transportation options to residents as demand increases. Currently, two UTA bus routes have stops in Springville. Route 821 begins at the Provo FrontRunner Station and ends in Payson, and Route 822 begins at Utah Valley University and ends in Payson. Both have stops at 900 North and Main and 400 South and Main in Springville.

The combined efforts of the Utah Transit Authority (UTA), UDOT, MAG, and Springville will largely dictate the nature of a future expanded transit system. The following sections describe planned improvements as well as recommendations for the transit system in Springville.

Local Bus Routes

There are many opportunities for transit service enhancements in Springville. As new roads are built and the population expands, it will be necessary for UTA to provide service to these new corridors.

It is recommended that more frequent and additional bus routes be considered and that the City meet with UTA to decide bus stop locations, frequency, better signage, and shelter alternatives. Attention should also be given to ensure that bus stops are in compliance with the Americans with Disabilities Act (ADA).

Bus Rapid Transit (BRT)

Other enhancements to bus service will be through the implementation of Bus Rapid Transit (BRT). BRT is a way to provide a higher level of service similar to that of a rail system without the high capital costs of a rail system. There are a number of ways in which a BRT system can be implemented and by which bus service is made more efficient by reducing travel time and delay. One of the simplest forms of BRT is to provide transit priority at traffic signals. Through this technology, the traffic signal timing is adjusted by extending the green phase for approaching buses so there is a greater chance for the bus to make it through the intersection without stopping. Another BRT enhancement is to provide queue jumper lanes for buses. These are essentially right turn lanes that are available for through buses to use. The bus can then travel past the queue in the through lanes to the stop bar. This is typically used in conjunction with transit priority at the traffic signal, in which the bus can proceed through a green light before other vehicles, so the bus can get a head start.

More advanced BRT systems include exclusive bus-only travel lanes, similar to a light rail system. The system has regularly spaced bus stations and operates just like a rail system. With lower construction costs and lack of a fixed guide way, these systems are more flexible than traditional light rail.

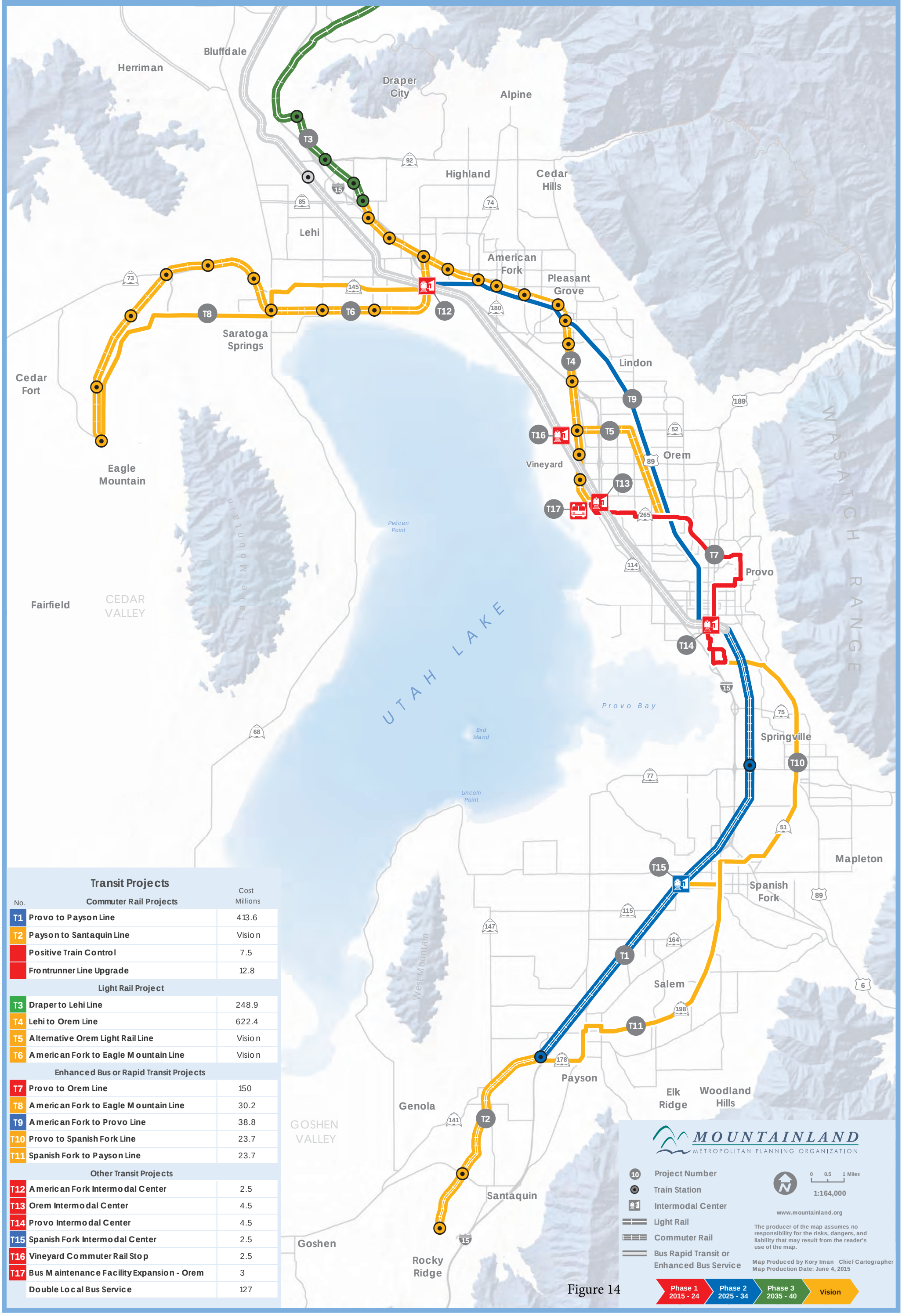
According to MAG's Metropolitan Transportation Plan, a BRT system is planned to run from Provo to Spanish Fork, traveling through Springville. This is a Vision project, meaning it is unfunded as seen in **Figure 14**.

Commuter Rail: FrontRunner

The most recent addition to the Utah statewide transit system is UTA's FrontRunner commuter rail line. The line connects Davis, Weber, Salt Lake, and Utah counties with stations along the Wasatch Front. Many stations have a connection to the TRAX and bus networks. FrontRunner is a push/pull locomotive system, which can travel up to 79 miles per hour. Future planned expansions will add service to Brigham City in the north and Payson in the South. Part of the MAG plan, includes a FrontRunner line connecting Provo to Payson. This line passes through and has a stop in Springville (located just north of 400 South on 1500 West) and is included as a phase 2 project (2025-2034).

An essential consideration of a good transportation system is the ability to seamlessly transfer from one transportation mode to the next. This could be from car to commuter rail, bike to bus, or foot to light rail. Each of these transfers must be accomplished efficiently in order for a transit system to be attractive to users. One way to accomplish exceptional connectivity is with an intermodal center. Intermodal centers are transit hubs where multiple modes of transportation converge and passengers enter using one form of transportation and leave by another. Transfers can occur between as many modes as the physical space can permit. The future FrontRunner station in Springville has the potential to provide this connectivity. In the future, other pieces of the transportation system may be added to this area.

Transit



Transit Projects

No.	Commuter Rail Projects	Cost Millions
T1	Provo to Payson Line	413.6
T2	Payson to Santaquin Line	Vision
	Positive Train Control	7.5
	Frontrunner Line Upgrade	12.8
	Light Rail Project	
T3	Draper to Lehi Line	248.9
T4	Lehi to Orem Line	622.4
T5	Alternative Orem Light Rail Line	Vision
T6	American Fork to Eagle Mountain Line	Vision
	Enhanced Bus or Rapid Transit Projects	
T7	Provo to Orem Line	150
T8	American Fork to Eagle Mountain Line	30.2
T9	American Fork to Provo Line	38.8
T10	Provo to Spanish Fork Line	23.7
T11	Spanish Fork to Payson Line	23.7
	Other Transit Projects	
T12	American Fork Intermodal Center	2.5
T13	Orem Intermodal Center	4.5
T14	Provo Intermodal Center	4.5
T15	Spanish Fork Intermodal Center	2.5
T16	Vineyard Commuter Rail Stop	2.5
T17	Bus Maintenance Facility Expansion - Orem	3
	Double Local Bus Service	127

Figure 14

Other Elements of the Transportation Master Plan

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) refers to the increased use of technology and communication methods to improve traffic operations. Pavement detectors, traffic cameras and weather sensors are used to gather constant information about traffic flow conditions along corridors or at intersections. This information may be relayed to a traffic control center where operators can change traffic signal timing plans or post messages on variable message signs. All of the traffic signals located on UDOT owned roadways are connected to the new fiber optic network called Max View.

Traffic Signal Coordination

Traffic signal coordination is another ITS method that is used to improve traffic operations and efficiency. Traffic signal timing and phasing improvements generally improve all traffic flow but can also be used to favor high-occupancy vehicles or buses. Some ways in which signal timing can be used to favor transit include transit pre-emption and priority. Transit pre-emption means that as a transit vehicle approaches an intersection the signal timing is interrupted to accommodate the transit vehicle. This interrupts the signal coordination of a corridor or network and as such is generally not recommended. Transit priority allows traffic signals to adjust their phasing to give priority to transit vehicles without interrupting the overall traffic signal timing plan.

Access Management

Access management is a term that refers to providing and managing access to land development while maintaining traffic flow and being attentive to safety issues. It includes elements such as driveway spacing, signal spacing, and corner clearance. Access management is a key element in transportation planning, helping to make transportation corridors operate more efficiently and carry more traffic without costly road widening projects. Access management offers local governments a systematic approach to decision-making, applying principles uniformly, equitably, and consistently throughout the jurisdiction. It is recommended that the City adopt an Access Management Program.

Principles of Access Management

Constantly growing traffic congestion, concerns over traffic safety, and the ever-increasing cost of upgrading roads have generated interest in managing the access to not only the highway system, but to surface streets as well. Access management is the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety,

capacity, and speed. Access management attempts to balance the need to provide good mobility for through traffic with the requirements for reasonable access to adjacent land uses.

Arguably the most important concept in understanding the need for access management is to understand that movement of traffic and access to property are competing priorities. No facility can move traffic very well and provide unlimited access at the same time. The extreme examples of this concept are the freeways and the cul-de-sac. The freeway moves traffic very well with few opportunities for access, while the cul-de-sac has unlimited opportunities for access, but doesn't move traffic very well. In many cases, accidents and congestion are the result of streets trying to serve both mobility and access at the same time.

A good access management program will accomplish the following:

- **Limit the number of conflict points at driveway locations.**
- **Separate conflict areas.**
- **Reduce the interference of through traffic.**
- **Provide sufficient spacing for at-grade, signalized intersections.**
- **Provide adequate on-site circulation and storage.**

Access management attempts to put an end to the seemingly endless cycle of road improvements followed by increased access, increased congestion, and the need for more road improvements.

Poor planning and inadequate control of access can quickly lead to an unnecessarily high number of direct accesses along roadways. The movements that occur on and off roadways at driveway locations, when those driveways are too closely spaced, can make it very difficult for through traffic to flow smoothly at desired speeds and levels of safety. The American Association of State Highway and Transportation Officials (AASHTO) states, "the number of accidents is disproportionately higher at driveways than at other intersections…thus their design and location merits special consideration." Studies have shown that anywhere between 50 and 70 percent of all crashes that occur on the urban street system are access related.

Fewer direct access, greater separation of driveways, and better driveway design and location are the basic elements of access management. There is less occasion for through traffic to brake and change lanes in order to avoid turning traffic when these techniques are implemented uniformly and comprehensively.

Consequently, with good access management, the flow of traffic will be smoother and average travel speeds higher. There will definitely be less potential for accidents. According to the Federal Highway Administration (FHWA), before and after analyses show that routes with well managed access can experience 50 percent fewer accidents than comparable facilities with no access controls.

Traffic Calming

Street patterns are typically developed at the time of construction. In Utah, the history of using a grid system for planning and development purposes started with the first settlers and has proven efficient for moving people and goods throughout a network of surface streets. However, the nature of a grid system with wide and often long, straight roads can result in excessive speeds. For that reason, traffic

calming measures (TCM) can be implemented to reduce speeds on residential roadways. Springville also follows the Utah grid system, with some minor interruptions. Traffic calming is however still applicable to many neighborhood or local streets and should be at least given consideration on the City's local and residential streets on a case-by-case basis where applicable.

ITE has established a definition for traffic calming that reads, "*Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users*." Altering driver behavior includes lowering of speeds, reducing aggressive driving, and increasing respect for non-motorized street users. It is recommended that the City adopt traffic calming guidelines to allow specified traffic calming measures to be implemented within the City.

Corridor Preservation

Corridor preservation is an important transportation planning tool that agencies should use and apply to all future transportation corridors. There are several new transportation facilities that have been identified in the TMP. In planning for these future facilities, corridor preservation techniques should be employed. The main purposes of corridor preservation are to:

- **Preserve the viability of future options**
- **Reduce the cost of these options**
- **Minimize environmental and socio-economic impacts of future implementation**

Corridor preservation seeks to preserve the right-of-way needed for future transportation facilities and prevent development that might be incompatible with these facilities. This is primarily accomplished by the community's ability to apply land use controls, such as zoning and approval of developments.

Perhaps the most important elements of corridor preservation are ensuring that the corridors are preserved in the correct location and that they meet the applicable design and right-of-way standards for the type of facility being preserved. As the master plan does not define the exact alignment of each future corridor, it becomes the responsibility of the City to make sure that the corridors are correctly preserved. This will have to be accomplished through the engineering and planning reviews done within the City as development and annexation requests are approved that involve properties within or adjacent to the future corridors.

Corridor Preservation Techniques

Some examples of specific corridor preservation techniques that may be most beneficial and easily implemented include the following:

- **Developer Incentives and Agreements:** Public agencies can offer incentives in the form of tax abatements, density credits, or timely site plan approvals to developers who maintain property within proposed transportation corridors in an undeveloped state.
- **Exactions:** As development proposals are submitted to the City for review, efforts should be made to exact land identified within the future corridors. Exactions are similar to impact fees, except they are paid with land rather than cash.

- **Fee Simple Acquisitions:** This will most likely consist of hardship purchases or possible City acquisition of property identified within the corridors. Parcels obtained in fee title can later be sold at market value to the owner of the transportation facility when construction begins.
- **Transfer of Development Rights and Density Transfers:** Government entities can provide incentives for developers and landowners to participate in corridor preservation programs using the transfer of development rights and density transfers. This is a powerful tool in that there seldom is any capital cost to local governments.
- **Land Use Controls:** This method allows government entities to use its policing power to regulate intensity and types of land use. Zoning ordinances are the primary controls over land use and the most important land use tools available for use in corridor preservation programs.
- **Purchase of Options and Easements:** Options and easements allow government agencies to purchase interests in property that lies within highway corridors without obtaining full title of the land. Usually, easements are far less expensive than fee title acquisitions.

Traffic Impact Studies

As growth occurs throughout the City, the City will evaluate the impacts of proposed developments on the surrounding transportation networks prior to giving approval to build. This can be accomplished by requiring that a Traffic Impact Study (TIS) be performed for any development in the City based on City staff recommendations. A TIS will allow the City to determine the site-specific impacts of a development including internal site circulation, access issues, and adjacent roadway and intersection impacts. In addition, a TIS will assist in defining possible impacts to the overall transportation system in the vicinity of the development. The area and items to be evaluated in a TIS include key intersections and roads as determined by the City Engineer on a case by case basis. It is recommended that the City adopt specific TIS guidelines for future development within the City.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act of 1990 prohibits discrimination and ensures equal opportunity and access for persons with disabilities. ADA standards govern the construction and alteration of places of public accommodation, commercial facilities, and State and local government facilities. The Department of Justice (DOJ) maintains ADA standards that apply to all ADA facilities except transit facilities, which are subject to similar standards issued by the Department of Transportation (DOT). The DOJ published revised regulations for Titles II and III of the American with Disabilities Act of 1990 in the Federal Register on September 15, 2010, which are available online at **http://www.ada.gov/2010ADAstandards_index.htm**. Chapter 4: Accessible Routes of the 2010 ADA Standards for Titles II and II Facilities governs the design of Accessible Routes.

The ADA standards should be regularly reviewed to ensure that City standards and specifications are in compliance with Federal ADA regulations. All areas of newly designed and newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with the ADA requirements as published. All new and altered facilities must be in compliance with ADA standards. In order to improve the quality of life of Springville residents with disabilities, a review of all public rights-of-way and facilities should be conducted over the next few years, as far as is economically viable.

CAPITAL FACILITIES PLAN

As shown in the **Roadway Network** section of this document, Springville will need to construct new roads, widen existing transportation corridors, and make spot intersection improvements to provide future residents of the City with an adequate transportation system. A concept plan for future growth between the planning years of 2015-2040 is provided below.

Transportation Needs as a Result of New Development

The specific transportation needs resulting from future growth throughout the City are identified in **Table 8** and **Figure 15**. **Table 8** and **Figure 15** will need to be regularly updated by the City as project scopes change and development occurs in the City. Individual projects were identified and costs estimates were compiled to produce a Transportation Improvement Plan (TIP) for the City. Table 8 identifies the specific projects that will be necessary in the near future; however, only arterial and collector improvements were identified since any local roads would be required to be built as part of future development. Costs have not been adjusted for inflation and therefore represent 2016 costs. The cost estimates shown represent the costs of construction, right-of-way, and engineering. Impact fee eligible costs, as well as other potential funding sources, were identified for each project in **Table 8**. Roadways of regional significance were assumed to be built through help from other jurisdictions, such as UDOT and MAG. Details for each project cost can be found in **Appendix B: Cost Estimates**

Table 8 includes all projects in the City through the year 2040. Actual development and transportation needs should provide the final decision on project timing. Although many of these projects are included on MAG's RTP (see **Figure 8**), MAG funding is not guaranteed. The City will assume these projects will only be completed with financial assistance from MAG. Therefore, the City will only collect impact fees for the required 6.77 percent match. It is expected that the total cost of roadway improvements needed before 2040 will be approximately **$463,650,260**, of which **$43,408,260** will be the responsibility of the City and may be eligible for impact fee expenditure.

Legend

- Traffic Signal
- Roundabout
- Intersection Improvement
- Railroad Crossing
- New/Reconfigured Interchange

CFP Projects

- MAG Capacity Improvement
- MAG New Road
- Springville Capacity Improvement
- Springville New Road
- UDOT Capacity Improvement
- UDOT New Road
- Incomplete Street Project
- CityBoundary
- Railroads

Springville

Springville

Canyon Road

Canyon Rd

Hobble Creek

Hobble Creek Rd

State St

Main St

400 S

Maple St

Community Park

Spanish Fork-Springville-Woodhouse Field

Three Sisters 6,710 Feet

Round Peak 5,535 Feet

Point 5530 Feet

Acres Sports Park

Eagle Rock Park

North Park

N

HORROCKS ENGINEERS

2162 West Grove Parkway
Suite 400
Pleasant Grove, UT 84062
(801) 763-5100

Springville Transportation Master Plan

2040 Capital Facilities Plan Projects

0.5 0 0.5 Miles

DATE 8/19/2020

DRAWN TRB

Figure 15

Table 8: Capital Facilities Plan Costs – 2040

Capital Facilities Plan - 2040					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
1	400 South Widening: I-15 to Spanish Fork Main Street	$3,095,000	UDOT	0%	$0
2	400 South Widening: 1750 West to 950 West	$5,604,000	UDOT	0%	$0
3	1400 North Widening: I-15 to Main Street	$49,300,000	UDOT	0%	$0
4	SR-51 Widening: Main Street to Southern Border	$17,250,000	UDOT	0%	$0
5	1600 South Interchange	$50,000,000	UDOT	0%	$0
6	1200 West Widening: Northern Border to 1200 North	$4,392,000	Springville/MAG	6.77%	$298,000
7	1200 West: 1400 N to Canyon Creek Pkwy	$32,286,000	Springville/MAG	6.77%	$2,186,000
8	1600 South Widening: I-15 to State Street	$37,664,000	Springville/MAG	6.77%	$2,550,000
9	1600 South Extension to US-89	$6,717,000	Springville/MAG	0%	$0
10	400 South Widening: Main Street to 400 East	$2,768,000	Springville/MAG	6.77%	$188,000
11	2600 West Widening: 400 South to Center Street	$2,831,000	Springville/MAG	7%	$192,000
12	New Road: 1400 North to 400 South (West of I-15)	$18,104,000	Springville	6%	$1,147,000
13	Roundabout: 1750 West & 1000 North	$705,000	Springville	100%	$705,000
14	900 South: 1200 West to RR Crossing (Project 38)	$473,000	Springville	16%	$76,000
15	900 South Extension to SR-51	$5,188,000	Springville	16%	$855,000
16	Connection of Mattea Lane & 750 West	$2,097,000	Springville	16%	$346,000
17	Connection of Wood Springs Dr. & 550 West	$917,000	Springville	16%	$151,000
18	Connection of 550 West & 400 North	$2,723,000	Springville	6%	$164,000
19	Connection of 2080 East Near 250 South	$680,000	Springville	100%	$680,000
20	400 South Eastern Extension	$583,000	Springville	16%	$96,000
21	Intersection Improvement: 400 South & 2060 West	$254,000	UDOT	0%	$0
22	Intersection Improvement: 400 South & 1200 West	$254,000	UDOT	0%	$0
23	Intersection Improvement: 400 South & Wood Springs Dr.	$254,000	UDOT	0%	$0
24	Intersection Improvement: 400 South & Main Street	$254,000	UDOT	0%	$0
25	Traffic Signal and Intersection Reconfiguration: Main Street & US-89	$18,000,000	UDOT	0%	$0
26	Intersection Improvement: SR-51 & 1600 South Extension	$254,000	UDOT	0%	$0

Capital Facilities Plan - 2040					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
27	Intersection Improvement: 1400 North & 1200 West	$254,000	UDOT	0%	$0
28	Intersection Improvement: 1600 South & 1200 West	$254,000	Springville/MAG	6.77%	$18,000
29	Intersection Improvement: 1600 South & Wallace Dr.	$254,000	Springville/MAG	6.77%	$18,000
30	Intersection Improvement: 1600 South & 1750 West	$254,000	Springville/MAG	6.77%	$18,000
31	Intersection Improvement: US:89 & 1600 South Extension	$254,000	UDOT	0%	$0
32	Intersection Improvement: 400 East & 400 North	$254,000	Springville	100%	$254,000
33	Intersection Improvement: 400 East & Center Street	$254,000	Springville	100%	$254,000
34	Intersection Improvement: 400 South & 800 East	$254,000	Springville	100%	$254,000
35	Railroad Crossing: 400 North & Spring Creek Place	$705,000	Springville	100%	$705,000
36	Railroad Crossing: 900 South & 1500 West	$705,000	Springville	100%	$705,000
37	Railroad Crossing: 950 West & 1400 South	$705,000	Springville	100%	$705,000
38	Railroad Crossing: 900 South & 600 West	$705,000	Springville	100%	$705,000
39	Intersection Improvement: West of 400 South Interchange	$254,000	UDOT	0%	$0
40	500 North: 2500 West to 2650 West	$276,000	Springville	16%	$45,000
41	2200 West Extension to 500 North	$3,485,000	Springville	0%	$0
42	Roundabout: 1750 West & Center Street	$705,000	Springville	100%	$705,000
43	1500 West Extension to 500 South	$3,192,000	Springville	6%	$192,000
44	1700 West: 500 South to 900 South	$2,251,000	Springville	0%	$0
45	1500 West: Center Street to 900 South	$5,082,000	Springville	16%	$837,000
46	1600 South & SR-51 Connection	$6,129,000	Springville	0%	$0
47	1000 North Extension to 1650 West	$2,390,000	Springville	6%	$144,000
48	700 North Extension to Millpond Dr.	$1,165,000	Springville	16%	$192,000
49	550 West Extension: 550 North to 450 West	$1,800,000	Springville	6%	$114,000
50	River Bottom Rd. Extension to 1600 North	$1,165,000	Springville	16%	$192,000
51	700 South New Road: 1500 West (Project 45) to 1250 West (Project 7)	$1,508,000	Springville	16%	$242,000
52	Frontage Road: 1000 North to Center Street	$6,128,000	Springville	6%	$368,000
53	2600 West Extension: Center Street to New Road	$10,372,000	Springville/MAG	6%	$623,000

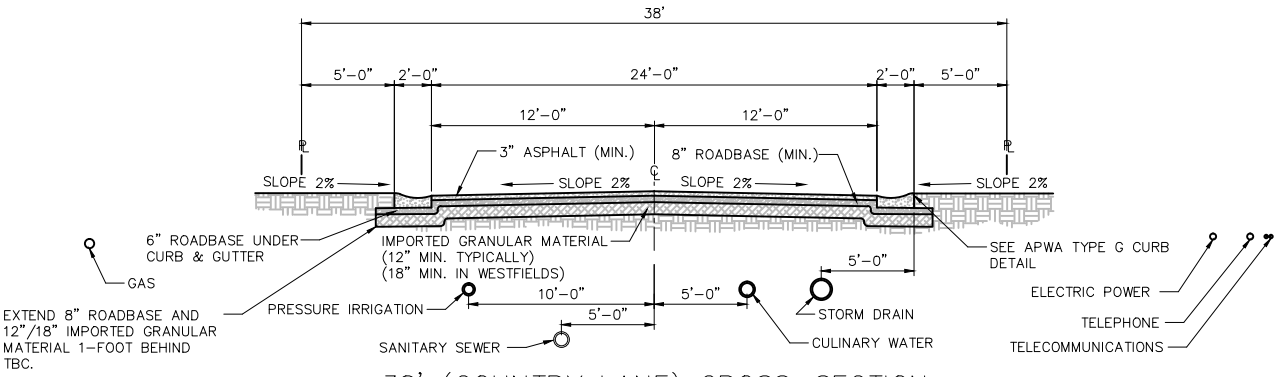
Capital Facilities Plan - 2040					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
54	3200 West: 400 South to New Road	$6,871,000	Springville	16%	$1,100,000
55	2250 West Extension to 1150 North	$2,141,000	Springville	6%	$129,000
56	Center Street: Extension to Western Border	$6,141,000	Springville	16%	$983,000
57	Center Street Widening: I-15 to 2600 West	$4,792,000	Springville	6%	$288,000
58	1600 South Alternative Alignment:	$39,800,000	Springville/MAG	6.77%	$2,695,000
59	Roundabout: Canyon Road and 620 South	$705,000	Springville	100%	$705,000
60	900 South: 1750 West to 1500 West	$1,605,000	Springville	6%	$97,000
61	1750 West: 400 South to Center Street	$2,144,000	Springville	50%	$1,072,000
62	Traffic Signal: Main Street & 900 North	$254,000	UDOT	0%	$0
63	Roundabout: 900 South and 800 East	$705,000	Springville	100%	$705,000
64	950 West Realignment: 700 North to 1000 North	$1,483,000	Springville	16%	$245,000
65	Frontage Road Realignment: North of 1150 North to New Road (Project 12)	$1,934,000	Springville/MAG	6%	$117,000
66	1500 West: 1000 North to 300 North	$5,278,000	Springville	16%	$845,000
67	900 South: 1500 West to 1200 West	$1,906,000	Springville	16%	$305,000
68	1500 West Extension to 1000 S	$1,271,000	Springville	16%	$204,000
69	700 South New Road: 950 West to 450 West	$3,914,000	Springville	6%	$235,000
70	450 West New Road: 700 South to 1600 South	$6,564,000	Springville	16%	$1,051,000
71	700 South: 1600 South to Project 46	$5,526,000	Springville	0%	$0
75	100 West and 600 South New Road (Complete)	$40,260	Springville	100%	$40,260
76	500 North New Road with Overpass: 2250 West to 400 West	$25,500,000	Springville/MAG	7%	$1,727,000
77	1200 East Extension to 100 East: 400 South to 900 South	$2,859,000	Springville	100%	$2,859,000
78	800 East/700 East Widening: 900 South to 1355 South	$3,349,000	Springville	100%	$3,349,000
79	700 South Widening 400 West to Main Street	$1,341,000	Springville	100%	$1,341,000
Incomplete Street Projects					
80	400 S: Spanish Fork Main Street to New Road (Project 54)	$880,000	UDOT	0%	$0
81	Spanish Fork Main Street: 400 South to South Border	$2,625,000	Springville/MAG	7%	$178,000
82	2000 West: 1150 North to Center Street	$1,122,000	Springville	50%	$561,000
83	350 East: Neways International to Freeway Fencing	$516,000	Springville	30%	$155,000
84	1750 West: 1400 North to 1000 North	$926,000	Springville	6%	$59,000

Capital Facilities Plan - 2040					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
85	1000 North: New Road (Project 52) to 1650 West	$1,150,000	Springville	6%	$73,000
86	Center Street: 1750 West to 1650 West	$288,000	Springville	6%	$19,000
87	1950 West: 500 South to 1600 South	$1,874,000	Springville	60%	$1,125,000
88	1650 West: 950 East to 3600 South	$3,057,000	Springville	16%	$490,000
89	550 North: 1500 West to 950 West	$1,225,000	Springville	16%	$202,000
90	950 West: 550 North to 400 South	$1,304,000	Springville	16%	$215,000
91	400 South: 1250 West to 550 East	$120,000	UDOT	0%	$0
92	950 West: 400 South to 1000 South	$641,000	Springville	16%	$106,000
93	Spring Creek Place: Approx. 800 North to 450 West	$3,057,000	Springville	0%	$0
94	450 West: Spring Creek Place to New Road (Project 49)	$450,000	Springville	100%	$450,000
95	400 North: 400 West to 900 East	$1,071,000	Springville	100%	$1,071,000
96	1400 North: Main Street to 150 East	$97,000	Springville	0%	$0
97	Main Street: 1400 North to 1060 North	$238,000	UDOT	0%	$0
98	1150 North: Main Street to 200 East	$96,000	Springville	50%	$48,000
99	US-89: 800 South to 400 East	$568,000	UDOT	0%	$0
100	400 East/2000 South: US-89 to Railroad Tracks	$158,000	Springville	100%	$158,000
101	880 East: 1125 North to 800 North	$408,000	Springville	0%	$0
102	800 East: Center Street to 100 South	$16,000	Springville	100%	$16,000
103	800 East: Brookside Drive to 650 South	$97,000	Springville	100%	$97,000
104	900 East: 400 North to 200 North	$163,000	Springville	100%	$163,000
105	620 South/1300 East: Canyon Road to 900 South	$271,000	Springville	50%	$136,000
106	Center Street/2080 East: Spring Oaks Drive to New Road	$338,000	Springville	0%	$0
107	400 South: 1850 East to 1950 East	$95,000	Springville	100%	$95,000
108	2080 East: 700 South to Canyon Road	$360,000	Springville	16%	$60,000
109	Canyon Road: 2900 East to Southeast Border	$915,000	Springville	100%	$915,000
	Total	**$463,650,260**			**$43,408,260**

* Project Alternative (#9 or #58) will be chosen at time of project (Assume Project #58 Alternative is Used)

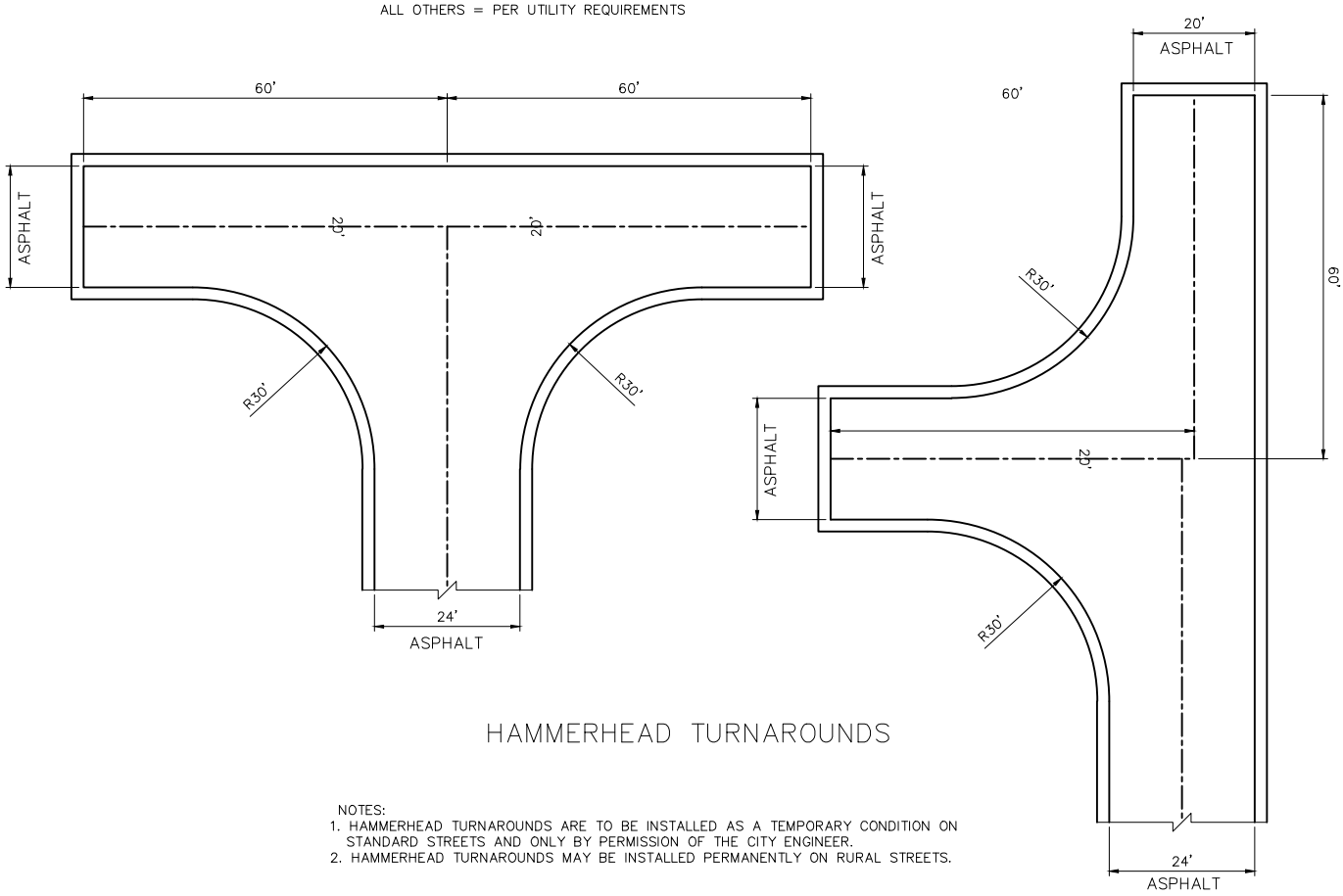
Appendix A: Typical Cross-Sections

DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



38' (COUNTRY LANE) CROSS-SECTION
LOOKING NORTH OR WEST

NOTES:
1. CULINARY WATER LINES SHALL BE INSTALLED ON THE NORTH AND EAST SIDE OF THE STREET AND PRESSURE IRRIGATION ON THE SOUTH AND WEST SIDE.
2. FIRE HYDRANTS SHALL BE LOCATED EVERY 500 FEET AND ON THE SAME SIDE AS THE CULINARY WATER LINES OR AS APPROVED BY THE CITY.
3. CULINARY VALVES SHALL BE LOCATED ADJACENT TO THE TEE OR CROSS IN THE INTERSECTION. PRESSURE IRRIGATION VALVES SHALL BE ALIGNED WITH PROPERTY LINES WHERE POSSIBLE.
4. NO CULINARY WATER LINE SMALLER THAN 8" DIA. SHALL BE INSTALLED WITHOUT APPROVAL OF PUBLIC WORKS.
5. NO PRESSURE IRRIGATION LINE SMALLER THAN 6" DIA. SHALL BE INSTALLED WITHOUT APPROVAL OF PUBLIC WORKS.
6. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
7. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
8. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
   CULINARY WATER = 48" MINIMUM
   PRESSURE IRRIGATION = 30" MINIMUM
   SANITARY SEWER = PER DESIGN
   STORM DRAIN = 30" MINIMUM
   TELECOMMUNICATIONS = 30" MINIMUM
   ALL OTHERS = PER UTILITY REQUIREMENTS



HAMMERHEAD TURNAROUNDS

NOTES:
1. HAMMERHEAD TURNAROUNDS ARE TO BE INSTALLED AS A TEMPORARY CONDITION ON STANDARD STREETS AND ONLY BY PERMISSION OF THE CITY ENGINEER.
2. HAMMERHEAD TURNAROUNDS MAY BE INSTALLED PERMANENTLY ON RURAL STREETS.

SPRINGVILLE CITY
110 SOUTH MAIN STEET
SPRINGVILLE UTAH 84663
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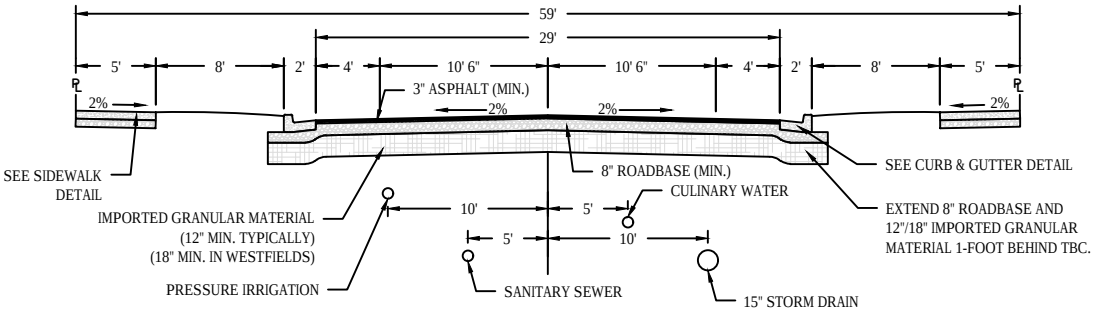
(801)491-2780

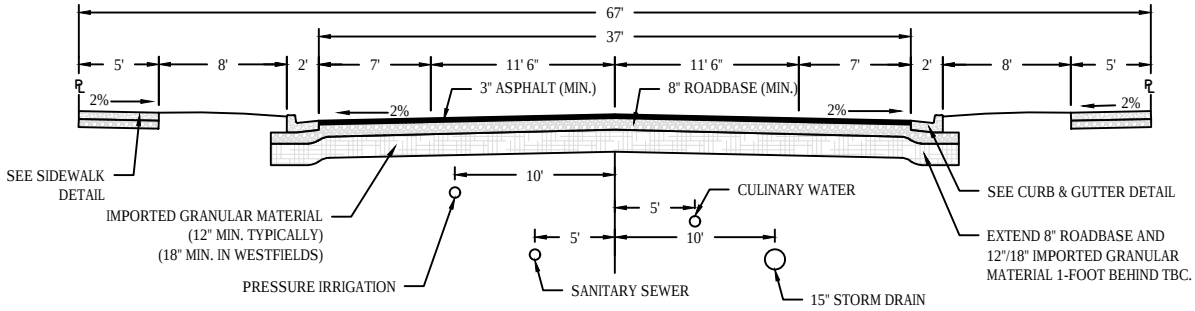
RURAL STREET CROSS SECTIONS AND HAMMERHEAD TURNAROUNDS

DRAWING #
RD-05
ADOPTED DATE
SEPT. 2015



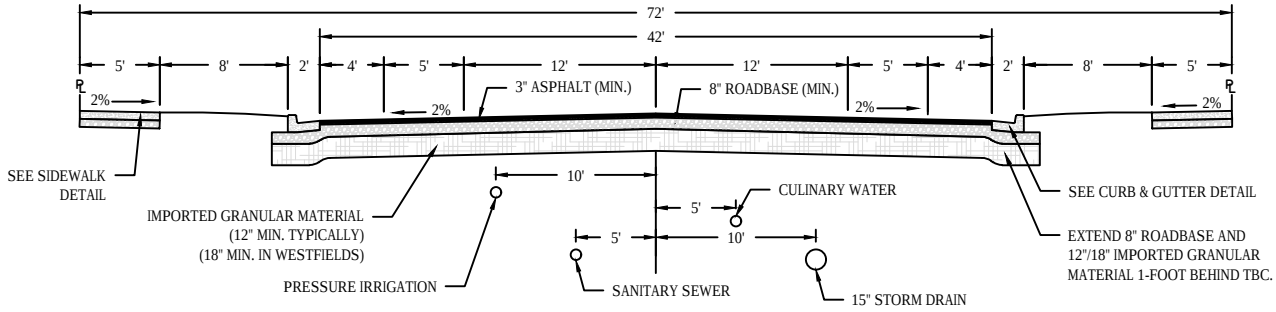
59' STREET CROSS-SECTION (RESIDENTIAL LOCAL)

LOOKING NORTH OR WEST



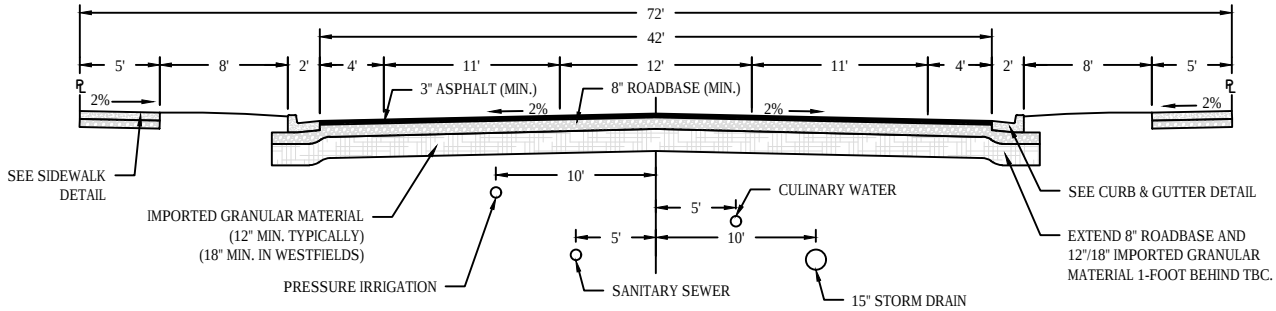
67' STREET CROSS-SECTION (COMMERCIAL LOCAL)

LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

TWO LANE LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

THREE LANE LOOKING NORTH OR WEST

NOTES:

1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
   CULINARY WATER = 48" MINIMUM
   PRESSURE IRRIGATION = 30" MINIMUM
   SANITARY SEWER = PER DESIGN
   STORM DRAIN = 30" MINIMUM
   TELECOMMUNICATIONS = 30" MINIMUM
   ALL OTHERS = PER UTILITY REQUIREMENTS

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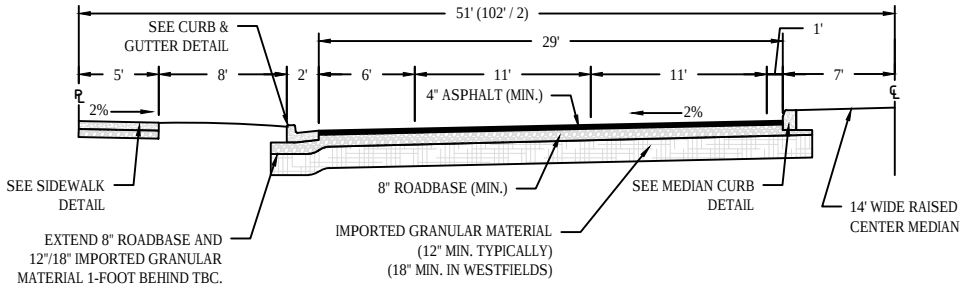
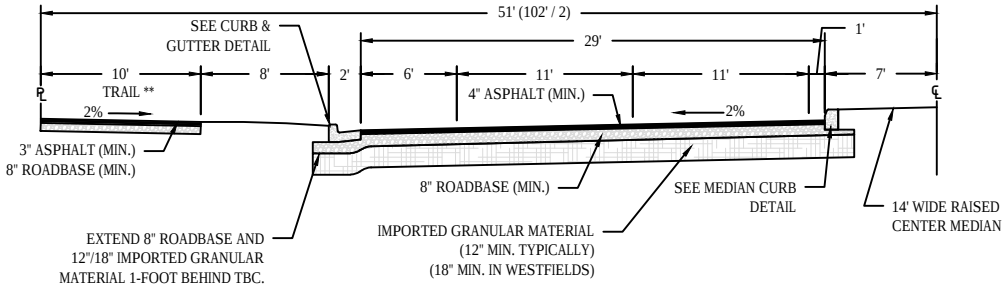
SPRINGVILLE UTAH 84663
ENGINEERING OFFICE
(801)491-2780
Springville

MAJOR STREET CROSS SECTION AND UTILITY LOCATION

DRAWING #
RD-04
ADOPTED DATE
JAN. 2016

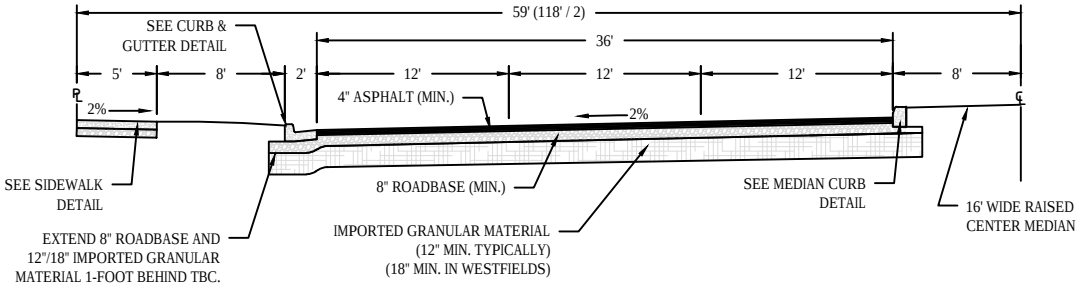


102' STREET CROSS-SECTION (MAJOR ARTERIAL)



107' STREET CROSS-SECTION (MAJOR ARTERIAL WITH TRAIL)

** TRAIL LOCATION MAY VARY EITHER SIDE OF CROSS SECTION (5' SIDEWALK ON OPPOSITE SIDE)



118' STREET CROSS-SECTION (PRINCIPAL ARTERIAL)

NOTES:
1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. ALL UTILITY LOCATIONS TO BE APPROVED BY CITY ENGINEER.
4. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
   CULINARY WATER = 48" MINIMUM
   PRESSURE IRRIGATION = 30" MINIMUM
   SANITARY SEWER = PER DESIGN
   STORM DRAIN = 30" MINIMUM
   TELECOMMUNICATIONS = 30" MINIMUM
   ALL OTHERS = PER UTILITY REQUIREMENTS

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Springville

MAJOR STREET CROSS SECTION AND UTILITY LOCATION

DRAWING #
RD-04
ADOPTED DATE
JAN. 2016

APPENDIX B: COST ESTIMATES

Project Summary					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
1	400 South Widening: I-15 to Spanish Fork Main Street	$3,095,000	UDOT	0%	$0
2	400 South Widening: 1750 West to 950 West	$5,604,000	UDOT	0%	$0
3	1400 North Widening: I-15 to Main Street	$49,300,000	UDOT	0%	$0
4	SR-51 Widening: Main Street to Southern Border	$17,250,000	UDOT	0%	$0
5	1600 South Interchange	$50,000,000	UDOT	0%	$0
6	1200 West Widening: Northern Border to 1200 North	$4,392,000	Springville/MAG	6.77%	$298,000
7	1200 West: 1400 N to Canyon Creek Pkwy	$32,286,000	Springville/MAG	6.77%	$2,186,000
8	1600 South Widening: I-15 to State Street	$37,664,000	Springville/MAG	6.77%	$2,550,000
9	1600 South Extension to US-89	$6,717,000	Springville/MAG	0%	$0
10	400 South Widening: Main Street to 400 East	$2,768,000	Springville/MAG	6.77%	$188,000
11	2600 West Widening: 400 South to Center Street	$2,831,000	Springville/MAG	7%	$192,000
12	New Road: 1400 North to 400 South (West of I-15)	$18,104,000	Springville	6%	$1,147,000
13	Roundabout: 1750 West & 1000 North	$705,000	Springville	100%	$705,000
14	900 South: 1200 West to RR Crossing (Project 38)	$473,000	Springville	16%	$76,000
15	900 South Extension to SR-51	$5,188,000	Springville	16%	$855,000
16	Connection of Mattea Lane & 750 West	$2,097,000	Springville	16%	$346,000
17	Connection of Wood Springs Dr. & 550 West	$917,000	Springville	16%	$151,000
18	Connection of 550 West & 400 North	$2,723,000	Springville	6%	$164,000
19	Connection of 2080 East Near 250 South	$680,000	Springville	100%	$680,000
20	400 South Eastern Extension	$583,000	Springville	16%	$96,000
21	Intersection Improvement: 400 South & 2060 West	$254,000	UDOT	0%	$0
22	Intersection Improvement: 400 South & 1200 West	$254,000	UDOT	0%	$0
23	Intersection Improvement: 400 South & Wood Springs Dr.	$254,000	UDOT	0%	$0
24	Intersection Improvement: 400 South & Main Street	$254,000	UDOT	0%	$0
25	Traffic Signal and Intersection Reconfiguration: Main Street & US-89	$18,000,000	UDOT	0%	$0
26	Intersection Improvement: SR-51 & 1600 South Extension	$254,000	UDOT	0%	$0
27	Intersection Improvement: 1400 North & 1200 West	$254,000	UDOT	0%	$0
28	Intersection Improvement: 1600 South & 1200 West	$254,000	Springville/MAG	6.77%	$18,000
29	Intersection Improvement: 1600 South & Wallace Dr.	$254,000	Springville/MAG	6.77%	$18,000
30	Intersection Improvement: 1600 South & 1750 West	$254,000	Springville/MAG	6.77%	$18,000
31	Intersection Improvement: US:89 & 1600 South Extension	$254,000	UDOT	0%	$0
32	Intersection Improvement: 400 East & 400 North	$254,000	Springville	100%	$254,000
33	Intersection Improvement: 400 East & Center Street	$254,000	Springville	100%	$254,000
34	Intersection Improvement: 400 South & 800 East	$254,000	Springville	100%	$254,000
35	Railroad Crossing: 400 North & Spring Creek Place	$705,000	Springville	100%	$705,000
36	Railroad Crossing: 900 South & 1500 West	$705,000	Springville	100%	$705,000
37	Railroad Crossing: 950 West & 1400 South	$705,000	Springville	100%	$705,000
38	Railroad Crossing: 900 South & 600 West	$705,000	Springville	100%	$705,000
39	Intersection Improvement: West of 400 South Interchange	$254,000	UDOT	0%	$0
40	500 North: 2500 West to 2650 West	$276,000	Springville	16%	$45,000
41	2200 West Extension to 500 North	$3,485,000	Springville	0%	$0
42	Roundabout: 1750 West & Center Street	$705,000	Springville	100%	$705,000
43	1500 West Extension to 500 South	$3,192,000	Springville	6%	$192,000
44	1700 West: 500 South to 900 South	$2,251,000	Springville	0%	$0
45	1500 West: Center Street to 900 South	$5,082,000	Springville	16%	$837,000
46	1600 South & SR-51 Connection	$6,129,000	Springville	0%	$0
47	1000 North Extension to 1650 West	$2,390,000	Springville	6%	$144,000
48	700 North Extension to Millpond Dr.	$1,165,000	Springville	16%	$192,000
49	550 West Extension: 550 North to 450 West	$1,800,000	Springville	6%	$114,000
50	River Bottom Rd. Extension to 1600 North	$1,165,000	Springville	16%	$192,000
51	700 South New Road: 1500 West (Project 45) to 1250 West (Project 7)	$1,508,000	Springville	16%	$242,000
52	Frontage Road: 1000 North to Center Street	$6,128,000	Springville	6%	$368,000
53	2600 West Extension: Center Street to New Road	$10,372,000	Springville/MAG	6%	$623,000
54	3200 West: 400 South to New Road	$6,871,000	Springville	16%	$1,100,000
55	2250 West Extension to 1150 North	$2,141,000	Springville	6%	$129,000
56	Center Street: Extension to Western Border	$6,141,000	Springville	16%	$983,000
57	Center Street Widening: I-15 to 2600 West	$4,792,000	Springville	6%	$288,000
58	1600 South Alternative Alignment:	$39,800,000	Springville/MAG	6.77%	$2,695,000
59	Roundabout: Canyon Road and 620 South	$705,000	Springville	100%	$705,000
60	900 South: 1750 West to 1500 West	$1,605,000	Springville	6%	$97,000
61	1750 West: 400 South to Center Street	$2,144,000	Springville	50%	$1,072,000
62	Traffic Signal: Main Street & 900 North	$254,000	UDOT	0%	$0
63	Roundabout: 900 South and 800 East	$705,000	Springville	100%	$705,000
64	950 West Realignment: 700 North to 1000 North	$1,483,000	Springville	16%	$245,000
65	Frontage Road Realignment: North of 1150 North to New Road (Project 12)	$1,934,000	Springville/MAG	6%	$117,000
66	1500 West: 1000 North to 300 North	$5,278,000	Springville	16%	$845,000
67	900 South: 1500 West to 1200 West	$1,906,000	Springville	16%	$305,000
68	1500 West Extension to 1000 S	$1,271,000	Springville	16%	$204,000
69	700 South New Road: 950 West to 450 West	$3,914,000	Springville	6%	$235,000
70	450 West New Road: 700 South to 1600 South	$6,564,000	Springville	16%	$1,051,000

Project Summary					
Project	**Location**	**Total Price**	**Funding Source**	**Springville City %**	**Springville City Total**
71	700 South: 1600 South to Project 46	$5,526,000	Springville	0%	$0
75	100 West and 600 South New Road (Complete)	$40,260	Springville	100%	$40,260
76	500 North New Road with Overpass: 2250 West to 400 West	$25,500,000	Springville/MAG	7%	$1,727,000
77	1200 East Extension to 100 East: 400 South to 900 South	$2,859,000	Springville	100%	$2,859,000
78	800 East/700 East Widening: 900 South to 1355 South	$3,349,000	Springville	100%	$3,349,000
79	700 South Widening 400 West to Main Street	$1,341,000	Springville	100%	$1,341,000
80	400 S: Spanish Fork Main Street to New Road (Project 54)	$880,000	UDOT	0%	$0
81	Spanish Fork Main Street: 400 South to South Border	$2,625,000	Springville/MAG	7%	$178,000
82	2000 West: 1150 North to Center Street	$1,122,000	Springville	50%	$561,000
83	350 East: Neways International to Freeway Fencing	$516,000	Springville	30%	$155,000
84	1750 West: 1400 North to 1000 North	$926,000	Springville	6%	$59,000
85	1000 North: New Road (Project 52) to 1650 West	$1,150,000	Springville	6%	$73,000
86	Center Street: 1750 West to 1650 West	$288,000	Springville	6%	$19,000
87	1950 West: 500 South to 1600 South	$1,874,000	Springville	60%	$1,125,000
88	1650 West: 950 East to 3600 South	$3,057,000	Springville	16%	$490,000
89	550 North: 1500 West to 950 West	$1,225,000	Springville	16%	$202,000
90	950 West: 550 North to 400 South	$1,304,000	Springville	16%	$215,000
91	400 South: 1250 West to 550 East	$120,000	UDOT	0%	$0
92	950 West: 400 South to 1000 South	$641,000	Springville	16%	$106,000
93	Spring Creek Place: Approx. 800 North to 450 West	$3,057,000	Springville	0%	$0
94	450 West: Spring Creek Place to New Road (Project 49)	$450,000	Springville	100%	$450,000
95	400 North: 400 West to 900 East	$1,071,000	Springville	100%	$1,071,000
96	1400 North: Main Street to 150 East	$97,000	Springville	0%	$0
97	Main Street: 1400 North to 1060 North	$238,000	UDOT	0%	$0
98	1150 North: Main Street to 200 East	$96,000	Springville	50%	$48,000
99	US-89: 800 South to 400 East	$568,000	UDOT	0%	$0
100	400 East/2000 South: US-89 to Railroad Tracks	$158,000	Springville	100%	$158,000
101	880 East: 1125 North to 800 North	$408,000	Springville	0%	$0
102	800 East: Center Street to 100 South	$16,000	Springville	100%	$16,000
103	800 East: Brookside Drive to 650 South	$97,000	Springville	100%	$97,000
104	900 East: 400 North to 200 North	$163,000	Springville	100%	$163,000
105	620 South/1300 East: Canyon Road to 900 South	$271,000	Springville	50%	$136,000
106	Center Street/2080 East: Spring Oaks Drive to New Road	$338,000	Springville	0%	$0
107	400 South: 1850 East to 1950 East	$95,000	Springville	100%	$95,000
108	2080 East: 700 South to Canyon Road	$360,000	Springville	16%	$60,000
109	Canyon Road: 2900 East to Southeast Border	$915,000	Springville	100%	$915,000
	Total	**$463,650,260**			**$43,408,260**

Springville City
Transportation Improvement Program (TIP)

Unit Costs

Item	Unit	Unit Cost
Parkstrip	S.F.	$4.00
Removal of Existing Asphalt	S.Y.	$4.00
Clearing and Grubbing	Acre	$2,000.00
Roadway Excavation	C.Y.	$10.50
HMA Concrete	Ton	$85.00
Untreated Base Course	C.Y.	$10.00
Granular Borrow	C.Y.	$40.00
Curb and Gutter (2' width)	L.F.	$22.50
Sidewalk (5' width)	L.F.	$25.00
Drainage	L.F.	$45.00
Right of Way	S.F.	$4.00
Removal of Existing Curb and Gutter	L.F.	$5.00
Grind Existing Asphalt	S.F.	$5.00
Restriping	L.F.	$5.00
Roundabout	Each	$500,000
Traffic Signal	Each	$180,000

Contingency	15%

Mobilization	10%

Preconstruction Engineering	8%
Construction Engineering	8%

Springville City TMP
Developer's Responsibility vs. City's Responsibility

Item	Unit	Unit Cost	100' Length of Local		100' Length of Commercial Local		100' Length of Minor Collector		100' Length of Major Arterial		100' Length of Major Arterial with Trail		100' Length of Principal Arterial	
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	1600	$6,400	1600	$6,400	1600	$6,400	1600	$6,400	1600	$6,400	1600	$6,400
Removal of Existing Asphalt	S.Y.	$4.00	-	-	-	-	-	-	-	-	-	-	-	-
Clearing and Grubbing	Acre	$2,000	0.14	$271	0.15	$308	0.17	$331	0.23	$468	0.25	$491	0.27	$542
Roadway Excavation	C.Y.	$10.50	215	$2,256	274	$2,878	311	$3,267	533	$5,600	533	$5,600	652	$6,844
HMA Concrete	Ton	$85.00	56	$4,776	72	$6,093	81	$6,917	186	$15,810	186	$15,810	227	$19,323
Untreated Base Course	C.Y.	$10.00	72	$716	91	$914	104	$1,037	178	$1,778	178	$1,778	217	$2,173
Granular Borrow	C.Y.	$40.00	161	$6,444	206	$8,222	233	$9,333	400	$16,000	400	$16,000	489	$19,556
Curb and Gutter (2' width)	L.F.	$22.50	200	$4,500	200	$4,500	200	$4,500	200	$4,500	200	$4,500	200	$4,500
Sidewalk (5' width)	L.F.	$25.00	200	$5,000	200	$5,000	200	$5,000	200	$5,000	200	$5,000	200	$5,000
Drainage	L.F.	$45.00	100	$4,500	100	$4,500	100	$4,500	100	$4,500	100	$4,500	100	$4,500
Right of Way	S.F.	$4.00	5900	$23,600	6700	$26,800	7200	$28,800	10200	$40,800	10700	$42,800	11800	$47,200
Removal of Existing Curb and Gutter	L.F.	$5.00	-	-	-	-	-	-	-	-	-	-	-	-
Grind Existing Asphalt	S.F.	$5.00	-	-	-	-	-	-	-	-	-	-	-	-
Restriping	L.F.	$5.00	100	$500	100	$500	100	$500	100	$500	100	$500	100	$500
Roundabout	Each	$500,000	-	-	-	-	-	-	-	-	-	-	-	-
Traffic Signal	Each	$180,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Railroad Crossing	Each	$500,000												
Subtotal				$58,963		$66,115		$70,584		$101,356		$103,379		$116,538
Contingency		15%		$8,844		$9,917		$10,588		$15,203		$15,507		$17,481
Mobilization		10%		$5,896		$6,611		$7,058		$10,136		$10,338		$11,654
Preconstruction Engineering		8%		$4,717		$5,289		$5,647		$8,108		$8,270		$9,323
Construction Engineering		8%		$4,717		$5,289		$5,647		$8,108		$8,270		$9,323
Total Project Cost				$83,138		$93,222		$99,524		$142,912		$145,764		$164,319
Developers Responsibility			100%	$83,138	-	-	84%	$83,138	58%	$83,138	57%	$83,138	51%	$83,138
Springville City's Responsibility (Residential)			0%	$0	-	-	16%	$16,386	42%	$59,774	43%	$62,626.81	49%	$81,181
Springville City's Responsibility (Commercial)			-	-	100%	$93,222	94%	$93,222	65%	$93,221.64	64%	$93,222	57%	$93,222
			-	-	0%	$0	6%	$6,302.49	35%	$49,690.46	36%	$52,543	43%	$71,097
Overall Assumptions:														
HMA Pavement Density (pcf) =				155		155		155		155		155		155
HMA Thickness (in) =				3		3		3		4		4		4
Untreated Base Course Thickness (in) =				8		8		8		8		8		8
Granual Borrow Thickness (in) =				18		18		18		18		18		18
Roadway Excavation Depth (ft) =				2		2		2		2		2		2
Number of Sidewalks (No.) =				2		2		2		2		2		2
Overlay HMA Thickness (in) =				2		3		3		3		3		3

Springville City
Transportation Master Plan

400 South Widening: I-15 to Spanish Fork Main Street

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	38,980	$155,922
Removal of Existing Asphalt	S.Y.	$4.00	11,640	$46,560
Clearing and Grubbing	Acre	$2,000.00	2	$4,810
Roadway Excavation	C.Y.	$10.50	5,233	$54,952
HMA Concrete	Ton	$85.00	3,855	$327,666
Untreated Base Course	C.Y.	$10.00	1,744	$17,445
Granular Borrow	C.Y.	$40.00	3,925	$157,004
Curb and Gutter (2' width)	L.F.	$22.50	4,873	$109,632
Sidewalk (5' width)	L.F.	$25.00	4,873	$121,814
Drainage	L.F.	$45.00	4,873	$219,265
Right of Way	S.F.	$4.00	104,760	$419,039
Removal of Existing Curb and Gutter	L.F.	$5.00	4,873	$24,363
Grind Existing Asphalt	S.F.	$5.00	104,760	$523,799
Restriping	L.F.	$5.00	2,436	$12,181
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,194,453**

Contingency	15%	$329,168
Mobilization	10%	$219,445
Preconstruction Engineering	8%	$175,556
Construction Engineering	8%	$175,556
Total Project Costs		**$3,095,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**1**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18	Cost from 2040 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 South Widening: 1750 West to 950 West

Principal Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	64,189	$256,758
Removal of Existing Asphalt	S.Y.	$4.00	37,444	$149,775
Clearing and Grubbing	Acre	$2,000.00	2	$4,973
Roadway Excavation	C.Y.	$10.50	1,189	$12,481
HMA Concrete	Ton	$85.00	6,944	$590,226
Untreated Base Course	C.Y.	$10.00	396	$3,962
Granular Borrow	C.Y.	$40.00	892	$35,661
Curb and Gutter (2' width)	L.F.	$22.50	8,024	$180,533
Sidewalk (5' width)	L.F.	$25.00	8,024	$200,592
Drainage	L.F.	$45.00	8,024	$361,066
Right of Way	S.F.	$4.00	108,320	$433,279
Removal of Existing Curb and Gutter	L.F.	$5.00	8,024	$40,118
Grind Existing Asphalt	S.F.	$5.00	336,995	$1,684,974
Restriping	L.F.	$5.00	4,012	$20,059
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,974,459**

Contingency	15%	$596,169
Mobilization	10%	$397,446
Preconstruction Engineering	8%	$317,957
Construction Engineering	8%	$317,957
Total Project Costs		**$5,604,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**2**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18	Cost from 2040 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1400 North Widening: I-15 to Main Street

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	664,325	$2,657,299
Removal of Existing Asphalt	S.Y.	$4.00	124,561	$498,244
Clearing and Grubbing	Acre	$2,000.00	46	$91,505
Roadway Excavation	C.Y.	$10.50	138,401	$1,453,211
HMA Concrete	Ton	$85.00	69,988	$5,948,951
Untreated Base Course	C.Y.	$10.00	46,134	$461,337
Granular Borrow	C.Y.	$40.00	103,801	$4,152,030
Curb and Gutter (2' width)	L.F.	$22.50	41,520	$934,207
Sidewalk (5' width)	L.F.	$25.00	41,520	$1,038,008
Drainage	L.F.	$45.00	83,041	$3,736,827
Right of Way	S.F.	$4.00	1,992,974	$7,971,898
Removal of Existing Curb and Gutter	L.F.	$5.00	41,520	$207,602
Grind Existing Asphalt	S.F.	$5.00	1,121,048	$5,605,241
Restriping	L.F.	$5.00	41,520	$207,602
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$34,963,958**

Contingency	15%	$5,244,594
Mobilization	10%	$3,496,396
Preconstruction Engineering	8%	$2,797,117
Construction Engineering	8%	$2,797,117
Total Project Costs		**$49,300,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**3**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18	Cost from 2050 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

SR-51 Widening: Main Street to Southern Border

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	218,000	$872,000
Removal of Existing Asphalt	S.Y.	$4.00	43,903	$175,611
Clearing and Grubbing	Acre	$2,000.00	15	$30,028
Roadway Excavation	C.Y.	$10.50	43,398	$455,681
HMA Concrete	Ton	$85.00	22,791	$1,937,205
Untreated Base Course	C.Y.	$10.00	14,466	$144,660
Granular Borrow	C.Y.	$40.00	32,549	$1,301,944
Curb and Gutter (2' width)	L.F.	$22.50	27,250	$613,125
Sidewalk (5' width)	L.F.	$25.00	27,250	$681,250
Drainage	L.F.	$45.00	27,250	$1,226,250
Right of Way	S.F.	$4.00	654,000	$2,616,000
Removal of Existing Curb and Gutter	L.F.	$5.00	27,250	$136,250
Grind Existing Asphalt	S.F.	$5.00	395,125	$1,975,625
Restriping	L.F.	$5.00	13,625	$68,125
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$12,233,754**

Contingency	15%	$1,835,063
Mobilization	10%	$1,223,375
Preconstruction Engineering	8%	$978,700
Construction Engineering	8%	$978,700
Total Project Costs		**$17,250,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**4**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1600 South Interchange

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	673,819	$2,695,276
Removal of Existing Asphalt	S.Y.	$4.00	168,455	$673,819
Clearing and Grubbing	Acre	$2,000.00	41	$81,211
Roadway Excavation	C.Y.	$10.50	112,303	$1,179,183
HMA Concrete	Ton	$85.00	39,166	$3,329,087
Untreated Base Course	C.Y.	$10.00	37,434	$374,344
Granular Borrow	C.Y.	$40.00	84,227	$3,369,095
Curb and Gutter (2' width)	L.F.	$22.50	84,227	$1,895,116
Sidewalk (5' width)	L.F.	$25.00	84,227	$2,105,684
Drainage	L.F.	$45.00	84,227	$3,790,232
Right of Way	S.F.	$4.00	1,768,775	$7,075,100
Removal of Existing Curb and Gutter	L.F.	$5.00	84,227	$421,137
Grind Existing Asphalt	S.F.	$5.00	1,516,093	$7,580,464
Restriping	L.F.	$5.00	42,114	$210,568
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$35,460,318**

Contingency	15%	$5,319,048
Mobilization	10%	$3,546,032
Preconstruction Engineering	8%	$2,836,825
Construction Engineering	8%	$2,836,825
Total Project Costs		**$50,000,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**5**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Interchange**
Granual Borrow Thickness (in) =	18	Cost from 2040 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1200 West Widening: Northern Border to 1200 North

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	55,261	$221,043
Removal of Existing Asphalt	S.Y.	$4.00	19,571	$78,286
Clearing and Grubbing	Acre	$2,000.00	3	$6,343
Roadway Excavation	C.Y.	$10.50	5,373	$56,412
HMA Concrete	Ton	$85.00	5,286	$449,349
Untreated Base Course	C.Y.	$10.00	1,791	$17,909
Granular Borrow	C.Y.	$40.00	4,029	$161,177
Curb and Gutter (2' width)	L.F.	$22.50	6,908	$155,421
Sidewalk (5' width)	L.F.	$25.00	6,908	$172,690
Drainage	L.F.	$45.00	6,908	$310,841
Right of Way	S.F.	$4.00	138,152	$552,607
Removal of Existing Curb and Gutter	L.F.	$5.00	6,908	$34,538
Grind Existing Asphalt	S.F.	$5.00	176,143	$880,717
Restriping	L.F.	$5.00	3,454	$17,269
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,114,601**

Contingency	15%	$467,190
Mobilization	10%	$311,460
Preconstruction Engineering	8%	$249,168
Construction Engineering	8%	$249,168
Total Project Costs		**$4,392,000**
Springville City's Responsibility		**7%**
		$298,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **6**

Funding: **Springville/MAG**

Type: **Capacity Improvement**

Costs apportioned from 2040 RTP

Springville City
Transportation Master Plan

1200 West: 1400 N to Canyon Creek Pkwy

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	335,894	$1,343,577
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	52	$103,136
Roadway Excavation	C.Y.	$10.50	111,965	$1,175,630
HMA Concrete	Ton	$85.00	39,048	$3,319,055
Untreated Base Course	C.Y.	$10.00	37,322	$373,216
Granular Borrow	C.Y.	$40.00	83,974	$3,358,942
Curb and Gutter (2' width)	L.F.	$22.50	41,987	$944,702
Sidewalk (5' width)	L.F.	$25.00	41,987	$1,049,669
Drainage	L.F.	$45.00	41,987	$1,889,405
Right of Way	S.F.	$4.00	2,246,293	$8,985,170
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	20,993	$104,967
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Culvert (Cast in Place)	Each	$250,000	1	$250,000
			Subtotal	**$22,897,469**

Contingency	15%	$3,434,620
Mobilization	10%	$2,289,747
Preconstruction Engineering	8%	$1,831,798
Construction Engineering	8%	$1,831,798

Total Project Costs	**$32,286,000**
Springville City's Responsibility	**6.77%**
	$2,186,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**7**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18	Costs apportioned from 2040 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1600 South Widening: I-15 to State Street

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	486,957	$1,947,830
Removal of Existing Asphalt	S.Y.	$4.00	98,068	$392,271
Clearing and Grubbing	Acre	$2,000.00	30	$60,087
Roadway Excavation	C.Y.	$10.50	96,941	$1,017,876
HMA Concrete	Ton	$85.00	50,909	$4,327,231
Untreated Base Course	C.Y.	$10.00	32,314	$323,135
Granular Borrow	C.Y.	$40.00	72,705	$2,908,218
Curb and Gutter (2' width)	L.F.	$22.50	60,870	$1,369,568
Sidewalk (5' width)	L.F.	$25.00	60,870	$1,521,742
Drainage	L.F.	$45.00	60,870	$2,739,135
Right of Way	S.F.	$4.00	1,308,698	$5,234,792
Removal of Existing Curb and Gutter	L.F.	$5.00	60,870	$304,348
Grind Existing Asphalt	S.F.	$5.00	882,610	$4,413,051
Restriping	L.F.	$5.00	30,435	$152,174
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$26,711,459**

Contingency	15%	$4,006,719
Mobilization	10%	$2,671,146
Preconstruction Engineering	8%	$2,136,917
Construction Engineering	8%	$2,136,917
Total Project Costs		**$37,664,000**
Springville City's Responsibility		**6.77%**
		$2,550,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **8**
Funding: **Springville/MAG**
Type: **Capacity Improvement**
Cost apportioned from 2050 RTP

Springville City
Transportation Master Plan

1600 South Extension to US-89

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	72,000	$288,000
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	11	$21,074
Roadway Excavation	C.Y.	$10.50	24,000	$252,000
HMA Concrete	Ton	$85.00	8,370	$711,450
Untreated Base Course	C.Y.	$10.00	8,000	$80,000
Granular Borrow	C.Y.	$40.00	18,000	$720,000
Curb and Gutter (2' width)	L.F.	$22.50	9,000	$202,500
Sidewalk (5' width)	L.F.	$25.00	9,000	$225,000
Drainage	L.F.	$45.00	9,000	$405,000
Right of Way	S.F.	$4.00	459,000	$1,836,000
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	4,500	$22,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$4,763,524**

Contingency	15%	$714,529
Mobilization	10%	$476,352
Preconstruction Engineering	8%	$381,082
Construction Engineering	8%	$381,082
Total Project Costs		**$6,717,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**9**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 South Widening: Main Street to 400 East

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	34,928	$139,712
Removal of Existing Asphalt	S.Y.	$4.00	10,187	$40,749
Clearing and Grubbing	Acre	$2,000.00	2	$4,310
Roadway Excavation	C.Y.	$10.50	4,851	$50,937
HMA Concrete	Ton	$85.00	3,468	$294,801
Untreated Base Course	C.Y.	$10.00	1,617	$16,170
Granular Borrow	C.Y.	$40.00	3,638	$145,533
Curb and Gutter (2' width)	L.F.	$22.50	4,366	$98,235
Sidewalk (5' width)	L.F.	$25.00	4,366	$109,150
Drainage	L.F.	$45.00	4,366	$196,470
Right of Way	S.F.	$4.00	93,869	$375,476
Removal of Existing Curb and Gutter	L.F.	$5.00	4,366	$21,830
Grind Existing Asphalt	S.F.	$5.00	91,686	$458,430
Restriping	L.F.	$5.00	2,183	$10,915
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,962,718**

Contingency	15%	$294,408
Mobilization	10%	$196,272
Preconstruction Engineering	8%	$157,017
Construction Engineering	8%	$157,017
Total Project Costs		**$2,768,000**
Springville City's Responsibility		**7%**
		$188,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No.	**10**
Funding:	**Springville/MAG**
Type:	**Capacity Improvement**
Cost from 2040 RTP	

Springville City
Transportation Master Plan

2600 West Widening: 400 South to Center Street

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	35,776	$143,102
Removal of Existing Asphalt	S.Y.	$4.00	7,205	$28,819
Clearing and Grubbing	Acre	$2,000.00	2	$4,928
Roadway Excavation	C.Y.	$10.50	7,122	$74,781
HMA Concrete	Ton	$85.00	3,740	$317,911
Untreated Base Course	C.Y.	$10.00	2,374	$23,740
Granular Borrow	C.Y.	$40.00	5,341	$213,660
Curb and Gutter (2' width)	L.F.	$22.50	4,472	$100,619
Sidewalk (5' width)	L.F.	$25.00	4,472	$111,799
Drainage	L.F.	$45.00	4,472	$201,238
Right of Way	S.F.	$4.00	107,327	$429,307
Removal of Existing Curb and Gutter	L.F.	$5.00	4,472	$22,360
Grind Existing Asphalt	S.F.	$5.00	64,843	$324,216
Restriping	L.F.	$5.00	2,236	$11,180
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,007,660**

Contingency	15%	$301,149
Mobilization	10%	$200,766
Preconstruction Engineering	8%	$160,613
Construction Engineering	8%	$160,613
Total Project Costs		**$2,831,000**

Springville City's Responsibility	**7%**
	$192,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**11**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

New Road: 1400 North to 400 South (West of I-15)

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	273,600	$1,094,400
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	28	$56,529
Roadway Excavation	C.Y.	$10.50	53,200	$558,600
HMA Concrete	Ton	$85.00	13,915	$1,182,786
Untreated Base Course	C.Y.	$10.00	17,733	$177,333
Granular Borrow	C.Y.	$40.00	39,900	$1,596,000
Curb and Gutter (2' width)	L.F.	$22.50	34,200	$769,500
Sidewalk (5' width)	L.F.	$25.00	34,200	$855,000
Drainage	L.F.	$45.00	34,200	$1,539,000
Right of Way	S.F.	$4.00	1,231,200	$4,924,800
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	17,100	$85,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$12,839,448**

Contingency	15%	$1,925,917
Mobilization	10%	$1,283,945
Preconstruction Engineering	8%	$1,027,156
Construction Engineering	8%	$1,027,156
Total Project Costs		**$18,104,000**
Springville City's Responsibility		**6%**
		$1,147,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**12**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Roundabout: 1750 West & 1000 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
Culvert (Cast in Place)	Each	$250,000	0	$0
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**13**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Roundabout**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

900 South: 1200 West to RR Crossing (Project 38)

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	7,600	$30,400
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	1	$1,461
Roadway Excavation	C.Y.	$10.50	1,302	$13,669
HMA Concrete	Ton	$85.00	341	$28,944
Untreated Base Course	C.Y.	$10.00	434	$4,340
Granular Borrow	C.Y.	$40.00	976	$39,056
Curb and Gutter (2' width)	L.F.	$22.50	950	$21,375
Sidewalk (5' width)	L.F.	$25.00	950	$23,750
Drainage	L.F.	$45.00	950	$42,750
Right of Way	S.F.	$4.00	31,825	$127,300
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	475	$2,375
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$335,420**

Contingency	15%	$50,313
Mobilization	10%	$33,542
Preconstruction Engineering	8%	$26,834
Construction Engineering	8%	$26,834
Total Project Costs		**$473,000**
Springville City's Responsibility		**16%**
		$76,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**14**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

900 South Extension to SR-51

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	78,400	$313,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	8.10	$16,198
Roadway Excavation	C.Y.	$10.50	15,244	$160,067
HMA Concrete	Ton	$85.00	3,987	$338,927
Untreated Base Course	C.Y.	$10.00	5,081	$50,815
Granular Borrow	C.Y.	$40.00	11,433	$457,333
Curb and Gutter (2' width)	L.F.	$22.50	9,800	$220,500
Sidewalk (5' width)	L.F.	$25.00	9,800	$245,000
Drainage	L.F.	$45.00	9,800	$441,000
Right of Way	S.F.	$4.00	352,800	$1,411,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	4,900	$24,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,679,140**

Contingency	15%	$551,871
Mobilization	10%	$367,914
Preconstruction Engineering	8%	$294,331
Construction Engineering	8%	$294,331
Total Project Costs		**$5,188,000**

Springville City's Responsibility	**16%**
	$855,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**15**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Connection of Mattea Lane & 750 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	31,680	$126,720
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	3	$6,545
Roadway Excavation	C.Y.	$10.50	6,160	$64,680
HMA Concrete	Ton	$85.00	1,611	$136,954
Untreated Base Course	C.Y.	$10.00	2,053	$20,533
Granular Borrow	C.Y.	$40.00	4,620	$184,800
Curb and Gutter (2' width)	L.F.	$22.50	3,960	$89,100
Sidewalk (5' width)	L.F.	$25.00	3,960	$99,000
Drainage	L.F.	$45.00	3,960	$178,200
Right of Way	S.F.	$4.00	142,560	$570,240
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,980	$9,900
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,486,673**

Contingency	15%	$223,001
Mobilization	10%	$148,667
Preconstruction Engineering	8%	$118,934
Construction Engineering	8%	$118,934
Total Project Costs		**$2,097,000**

Springville City's Responsibility	**16%**
	$346,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**16**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Connection of Wood Springs Dr. & 550 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	13,856	$55,424
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	1	$2,863
Roadway Excavation	C.Y.	$10.50	2,694	$28,289
HMA Concrete	Ton	$85.00	705	$59,900
Untreated Base Course	C.Y.	$10.00	898	$8,981
Granular Borrow	C.Y.	$40.00	2,021	$80,827
Curb and Gutter (2' width)	L.F.	$22.50	1,732	$38,970
Sidewalk (5' width)	L.F.	$25.00	1,732	$43,300
Drainage	L.F.	$45.00	1,732	$77,940
Right of Way	S.F.	$4.00	62,352	$249,408
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	866	$4,330
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$650,232**

Contingency	15%	$97,535
Mobilization	10%	$65,023
Preconstruction Engineering	8%	$52,019
Construction Engineering	8%	$52,019
Total Project Costs		**$917,000**
Springville City's Responsibility		**16%**
		$151,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**17**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Connection of 550 West & 400 North

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	43,744	$174,976
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	4	$8,410
Roadway Excavation	C.Y.	$10.50	7,493	$78,678
HMA Concrete	Ton	$85.00	1,960	$166,595
Untreated Base Course	C.Y.	$10.00	2,498	$24,977
Granular Borrow	C.Y.	$40.00	5,620	$224,796
Curb and Gutter (2' width)	L.F.	$22.50	5,468	$123,030
Sidewalk (5' width)	L.F.	$25.00	5,468	$136,700
Drainage	L.F.	$45.00	5,468	$246,060
Right of Way	S.F.	$4.00	183,178	$732,712
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,734	$13,670
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,930,604**

Contingency	15%	$289,591
Mobilization	10%	$193,060
Preconstruction Engineering	8%	$154,448
Construction Engineering	8%	$154,448
Total Project Costs		**$2,723,000**

Springville City's Responsibility	**6%**
	$164,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**18**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Connection of 2080 East Near 250 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	10,272	$41,088
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	1	$2,122
Roadway Excavation	C.Y.	$10.50	1,997	$20,972
HMA Concrete	Ton	$85.00	522	$44,406
Untreated Base Course	C.Y.	$10.00	666	$6,658
Granular Borrow	C.Y.	$40.00	1,498	$59,920
Curb and Gutter (2' width)	L.F.	$22.50	1,284	$28,890
Sidewalk (5' width)	L.F.	$25.00	1,284	$32,100
Drainage	L.F.	$45.00	1,284	$57,780
Right of Way	S.F.	$4.00	46,224	$184,896
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	642	$3,210
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$482,042**

Contingency	15%	$72,306
Mobilization	10%	$48,204
Preconstruction Engineering	8%	$38,563
Construction Engineering	8%	$38,563
Total Project Costs		**$680,000**
Springville City's Responsibility		**100%**
		$680,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**19**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 South Eastern Extension

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	8,800	$35,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	1	$1,818
Roadway Excavation	C.Y.	$10.50	1,711	$17,967
HMA Concrete	Ton	$85.00	448	$38,043
Untreated Base Course	C.Y.	$10.00	570	$5,704
Granular Borrow	C.Y.	$40.00	1,283	$51,333
Curb and Gutter (2' width)	L.F.	$22.50	1,100	$24,750
Sidewalk (5' width)	L.F.	$25.00	1,100	$27,500
Drainage	L.F.	$45.00	1,100	$49,500
Right of Way	S.F.	$4.00	39,600	$158,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	550	$2,750
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$412,965**

Contingency	15%	$61,945
Mobilization	10%	$41,296
Preconstruction Engineering	8%	$33,037
Construction Engineering	8%	$33,037
Total Project Costs		**$583,000**
Springville City's Responsibility		**16%**
		$96,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**20**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 South & 2060 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**21**
HMA Thickness (in) =	3	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 South & 1200 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**22**
HMA Thickness (in) =	3	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2	Currently two sidewalks	
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 South & Wood Springs Dr.

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **23**
Funding: **UDOT**
Type: **Traffic Signal**
Springville City Paying 10%

Springville City
Transportation Master Plan

Intersection Improvement: 400 South & Main Street

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**24**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Traffic Signal and Intersection Reconfiguration: Main Street & US-89

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	234,146	$936,582
Removal of Existing Asphalt	S.Y.	$4.00	58,536	$234,146
Clearing and Grubbing	Acre	$2,000.00	14	$28,220
Roadway Excavation	C.Y.	$10.50	39,024	$409,755
HMA Concrete	Ton	$85.00	13,610	$1,156,826
Untreated Base Course	C.Y.	$10.00	13,008	$130,081
Granular Borrow	C.Y.	$40.00	29,268	$1,170,728
Curb and Gutter (2' width)	L.F.	$22.50	29,268	$658,535
Sidewalk (5' width)	L.F.	$25.00	29,268	$731,705
Drainage	L.F.	$45.00	29,268	$1,317,069
Right of Way	S.F.	$4.00	614,632	$2,458,529
Removal of Existing Curb and Gutter	L.F.	$5.00	29,268	$146,341
Grind Existing Asphalt	S.F.	$5.00	526,828	$2,634,138
Restriping	L.F.	$5.00	14,634	$73,171
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$12,765,825**

Contingency	15%	$1,914,874
Mobilization	10%	$1,276,582
Preconstruction Engineering	8%	$1,021,266
Construction Engineering	8%	$1,021,266
Total Project Costs		**$18,000,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **25**
Funding: **UDOT**
Type: **Intersection Reconfiguration**
Cost from 2040 RTP

Springville City
Transportation Master Plan

Intersection Improvement: SR-51 & 1600 South Extension

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**26**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 1400 North & 1200 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**27**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 1600 South & 1200 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**7%**
	$18,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**28**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 1600 South & Wallace Dr.

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**
Springville City's Responsibility		**7%**
		$18,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **29**
Funding: **Springville/MAG**
Type: **Traffic Signal**
Springville City Paying 10%

Springville City
Transportation Master Plan

Intersection Improvement: 1600 South & 1750 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**
Springville City's Responsibility		**7%**
		$18,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **30**
Funding: **Springville/MAG**
Type: **Traffic Signal**
Springville City Paying 10%

Springville City
Transportation Master Plan

Intersection Improvement: US:89 & 1600 South Extension

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**31**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 East & 400 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**100%**
	$254,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**32**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 East & Center Street

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**100%**
	$254,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**33**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 400 South & 800 East

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**100%**
	$254,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**34**
HMA Thickness (in) =	4	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Railroad Crossing: 400 North & Spring Creek Place

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Railroad Crossing	Each	$500,000	1	$500,000
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**
Springville City's Responsibility		**100%**
		$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**35**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Railroad**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Railroad Crossing: 900 South & 1500 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Railroad Crossing	Each	$500,000	1	$500,000
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**
Springville City's Responsibility		**100%**
		$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**36**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Railroad**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Railroad Crossing: 950 West & 1400 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Railroad Crossing	Each	$500,000	1	$500,000
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**
Springville City's Responsibility		**100%**
		$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**37**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Railroad**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Railroad Crossing: 900 South & 600 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Railroad Crossing	Each	$500,000	1	$500,000
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**38**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Railroad**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: West of 400 South Interchange

Principal Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**39**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

500 North: 2500 West to 2650 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	4,160	$16,640
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$860
Roadway Excavation	C.Y.	$10.50	809	$8,493
HMA Concrete	Ton	$85.00	212	$17,984
Untreated Base Course	C.Y.	$10.00	270	$2,696
Granular Borrow	C.Y.	$40.00	607	$24,267
Curb and Gutter (2' width)	L.F.	$22.50	520	$11,700
Sidewalk (5' width)	L.F.	$25.00	520	$13,000
Drainage	L.F.	$45.00	520	$23,400
Right of Way	S.F.	$4.00	18,720	$74,880
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	260	$1,300
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$195,220**

Contingency	15%	$29,283
Mobilization	10%	$19,522
Preconstruction Engineering	8%	$15,618
Construction Engineering	8%	$15,618
Total Project Costs		**$276,000**

Springville City's Responsibility	**16.00%**
	$45,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**40**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

2200 West Extension to 500 North

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	56,000	$224,000
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	5	$10,767
Roadway Excavation	C.Y.	$10.50	9,593	$100,722
HMA Concrete	Ton	$85.00	2,509	$213,270
Untreated Base Course	C.Y.	$10.00	3,198	$31,975
Granular Borrow	C.Y.	$40.00	7,194	$287,778
Curb and Gutter (2' width)	L.F.	$22.50	7,000	$157,500
Sidewalk (5' width)	L.F.	$25.00	7,000	$175,000
Drainage	L.F.	$45.00	7,000	$315,000
Right of Way	S.F.	$4.00	234,500	$938,000
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	3,500	$17,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,471,512**

Contingency	15%	$370,727
Mobilization	10%	$247,151
Preconstruction Engineering	8%	$197,721
Construction Engineering	8%	$197,721
Total Project Costs		**$3,485,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**41**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Roundabout: 1750 West & Center Street

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**42**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Roundabout**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1500 West Extension to 500 South

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	51,280	$205,120
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	5	$9,859
Roadway Excavation	C.Y.	$10.50	8,784	$92,233
HMA Concrete	Ton	$85.00	2,298	$195,295
Untreated Base Course	C.Y.	$10.00	2,928	$29,280
Granular Borrow	C.Y.	$40.00	6,588	$263,522
Curb and Gutter (2' width)	L.F.	$22.50	6,410	$144,225
Sidewalk (5' width)	L.F.	$25.00	6,410	$160,250
Drainage	L.F.	$45.00	6,410	$288,450
Right of Way	S.F.	$4.00	214,735	$858,940
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	3,205	$16,025
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,263,199**

Contingency	15%	$339,480
Mobilization	10%	$226,320
Preconstruction Engineering	8%	$181,056
Construction Engineering	8%	$181,056
Total Project Costs		**$3,192,000**

Springville City's Responsibility	**6%**
	$192,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**43**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1700 West: 500 South to 900 South

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	36,160	$144,640
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	3	$6,952
Roadway Excavation	C.Y.	$10.50	6,194	$65,038
HMA Concrete	Ton	$85.00	1,620	$137,712
Untreated Base Course	C.Y.	$10.00	2,065	$20,647
Granular Borrow	C.Y.	$40.00	4,646	$185,822
Curb and Gutter (2' width)	L.F.	$22.50	4,520	$101,700
Sidewalk (5' width)	L.F.	$25.00	4,520	$113,000
Drainage	L.F.	$45.00	4,520	$203,400
Right of Way	S.F.	$4.00	151,420	$605,680
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,260	$11,300
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,595,891**

Contingency	15%	$239,384
Mobilization	10%	$159,589
Preconstruction Engineering	8%	$127,671
Construction Engineering	8%	$127,671
Total Project Costs		**$2,251,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**44**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1500 West: Center Street to 900 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	76,800	$307,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	8	$15,868
Roadway Excavation	C.Y.	$10.50	14,933	$156,800
HMA Concrete	Ton	$85.00	3,906	$332,010
Untreated Base Course	C.Y.	$10.00	4,978	$49,778
Granular Borrow	C.Y.	$40.00	11,200	$448,000
Curb and Gutter (2' width)	L.F.	$22.50	9,600	$216,000
Sidewalk (5' width)	L.F.	$25.00	9,600	$240,000
Drainage	L.F.	$45.00	9,600	$432,000
Right of Way	S.F.	$4.00	345,600	$1,382,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	4,800	$24,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,604,056**

Contingency	15%	$540,608
Mobilization	10%	$360,406
Preconstruction Engineering	8%	$288,324
Construction Engineering	8%	$288,324
Total Project Costs		**$5,082,000**
Springville City's Responsibility		**16%**
		$837,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**45**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1600 South & SR-51 Connection

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	94,400	$377,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	9	$18,150
Roadway Excavation	C.Y.	$10.50	16,170	$169,789
HMA Concrete	Ton	$85.00	4,230	$359,513
Untreated Base Course	C.Y.	$10.00	5,390	$53,901
Granular Borrow	C.Y.	$40.00	12,128	$485,111
Curb and Gutter (2' width)	L.F.	$22.50	11,800	$265,500
Sidewalk (5' width)	L.F.	$25.00	11,800	$295,000
Drainage	L.F.	$45.00	11,800	$531,000
Right of Way	S.F.	$4.00	395,300	$1,581,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	5,900	$29,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$4,346,264**

Contingency	15%	$651,940
Mobilization	10%	$434,626
Preconstruction Engineering	8%	$347,701
Construction Engineering	8%	$347,701
Total Project Costs		**$6,129,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**46**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1000 North Extension to 1650 West

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	38,400	$153,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	4	$7,383
Roadway Excavation	C.Y.	$10.50	6,578	$69,067
HMA Concrete	Ton	$85.00	1,721	$146,243
Untreated Base Course	C.Y.	$10.00	2,193	$21,926
Granular Borrow	C.Y.	$40.00	4,933	$197,333
Curb and Gutter (2' width)	L.F.	$22.50	4,800	$108,000
Sidewalk (5' width)	L.F.	$25.00	4,800	$120,000
Drainage	L.F.	$45.00	4,800	$216,000
Right of Way	S.F.	$4.00	160,800	$643,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,400	$12,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,694,751**

Contingency	15%	$254,213
Mobilization	10%	$169,475
Preconstruction Engineering	8%	$135,580
Construction Engineering	8%	$135,580
Total Project Costs		**$2,390,000**
Springville City's Responsibility		**6%**
		$144,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**47**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

700 North Extension to Millpond Dr.

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	17,600	$70,400
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$3,636
Roadway Excavation	C.Y.	$10.50	3,422	$35,933
HMA Concrete	Ton	$85.00	895	$76,086
Untreated Base Course	C.Y.	$10.00	1,141	$11,407
Granular Borrow	C.Y.	$40.00	2,567	$102,667
Curb and Gutter (2' width)	L.F.	$22.50	2,200	$49,500
Sidewalk (5' width)	L.F.	$25.00	2,200	$55,000
Drainage	L.F.	$45.00	2,200	$99,000
Right of Way	S.F.	$4.00	79,200	$316,800
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,100	$5,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$825,929**

Contingency	15%	$123,889
Mobilization	10%	$82,593
Preconstruction Engineering	8%	$66,074
Construction Engineering	8%	$66,074
Total Project Costs		**$1,165,000**

Springville City's Responsibility	**16%**
	$192,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**48**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

550 West Extension: 550 North to 450 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	21,872	$87,488
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$4,519
Roadway Excavation	C.Y.	$10.50	4,253	$44,655
HMA Concrete	Ton	$85.00	1,112	$94,554
Untreated Base Course	C.Y.	$10.00	1,418	$14,176
Granular Borrow	C.Y.	$40.00	3,190	$127,587
Curb and Gutter (2' width)	L.F.	$22.50	2,734	$61,515
Sidewalk (5' width)	L.F.	$25.00	2,734	$68,350
Drainage	L.F.	$45.00	2,734	$123,030
Right of Way	S.F.	$4.00	98,424	$393,696
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,367	$6,835
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Culvert (Cast in Place)	Each	$250,000	1	$250,000
			Subtotal	**$1,276,405**

Contingency	15%	$191,461
Mobilization	10%	$127,640
Preconstruction Engineering	8%	$102,112
Construction Engineering	8%	$102,112
Total Project Costs		**$1,800,000**
Springville City's Responsibility		**6%**
		$114,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**49**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

River Bottom Rd. Extension to 1600 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	17,600	$70,400
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$3,636
Roadway Excavation	C.Y.	$10.50	3,422	$35,933
HMA Concrete	Ton	$85.00	895	$76,086
Untreated Base Course	C.Y.	$10.00	1,141	$11,407
Granular Borrow	C.Y.	$40.00	2,567	$102,667
Curb and Gutter (2' width)	L.F.	$22.50	2,200	$49,500
Sidewalk (5' width)	L.F.	$25.00	2,200	$55,000
Drainage	L.F.	$45.00	2,200	$99,000
Right of Way	S.F.	$4.00	79,200	$316,800
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,100	$5,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$825,929**

Contingency	15%	$123,889
Mobilization	10%	$82,593
Preconstruction Engineering	8%	$66,074
Construction Engineering	8%	$66,074
Total Project Costs		**$1,165,000**

Springville City's Responsibility	**16%**
	$192,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**50**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

700 South New Road: 1500 West (Project 45) to 1250 West (Project 7)

Minor Collector with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	22,192	$88,768
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$4,904
Roadway Excavation	C.Y.	$10.50	4,315	$45,309
HMA Concrete	Ton	$85.00	1,129	$95,937
Untreated Base Course	C.Y.	$10.00	1,438	$14,384
Granular Borrow	C.Y.	$40.00	3,236	$129,453
Curb and Gutter (2' width)	L.F.	$22.50	2,774	$62,415
Sidewalk (5' width)	L.F.	$25.00	2,774	$69,350
Drainage	L.F.	$45.00	2,774	$124,830
Right of Way	S.F.	$4.00	106,799	$427,196
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,387	$6,935
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,069,480**

Contingency	15%	$160,422
Mobilization	10%	$106,948
Preconstruction Engineering	8%	$85,558
Construction Engineering	8%	$85,558
Total Project Costs		**$1,508,000**
Springville City's Responsibility		**16%**
		$242,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**51**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Frontage Road: 1000 North to Center Street

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	92,800	$371,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	9	$17,842
Roadway Excavation	C.Y.	$10.50	15,896	$166,911
HMA Concrete	Ton	$85.00	4,158	$353,419
Untreated Base Course	C.Y.	$10.00	5,299	$52,988
Granular Borrow	C.Y.	$40.00	11,922	$476,889
Curb and Gutter (2' width)	L.F.	$22.50	11,600	$261,000
Sidewalk (5' width)	L.F.	$25.00	11,600	$290,000
Drainage	L.F.	$45.00	11,600	$522,000
Right of Way	S.F.	$4.00	388,600	$1,554,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	5,800	$29,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Culvert (Cast in Place)	Each	$250,000	1	$250,000
			Subtotal	**$4,345,649**

Contingency	15%	$651,847
Mobilization	10%	$434,565
Preconstruction Engineering	8%	$347,652
Construction Engineering	8%	$347,652
Total Project Costs		**$6,128,000**
Springville City's Responsibility		**6%**
		$368,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**52**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

2600 West Extension: Center Street to New Road

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	109,093	$436,372
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	17	$33,497
Roadway Excavation	C.Y.	$10.50	36,364	$381,825
HMA Concrete	Ton	$85.00	12,682	$1,077,974
Untreated Base Course	C.Y.	$10.00	12,121	$121,214
Granular Borrow	C.Y.	$40.00	27,273	$1,090,929
Curb and Gutter (2' width)	L.F.	$22.50	13,637	$306,824
Sidewalk (5' width)	L.F.	$25.00	13,637	$340,915
Drainage	L.F.	$45.00	13,637	$613,648
Right of Way	S.F.	$4.00	729,559	$2,918,235
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	6,818	$34,092
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$7,355,524**

Contingency	15%	$1,103,329
Mobilization	10%	$735,552
Preconstruction Engineering	8%	$588,442
Construction Engineering	8%	$588,442
Total Project Costs		**$10,372,000**
Springville City's Responsibility		**6%**
		$623,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**53**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

3200 West: 400 South to New Road

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	110,400	$441,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	11	$21,226
Roadway Excavation	C.Y.	$10.50	18,911	$198,567
HMA Concrete	Ton	$85.00	4,946	$420,447
Untreated Base Course	C.Y.	$10.00	6,304	$63,037
Granular Borrow	C.Y.	$40.00	14,183	$567,333
Curb and Gutter (2' width)	L.F.	$22.50	13,800	$310,500
Sidewalk (5' width)	L.F.	$25.00	13,800	$345,000
Drainage	L.F.	$45.00	13,800	$621,000
Right of Way	S.F.	$4.00	462,300	$1,849,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	6,900	$34,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$4,872,410**

Contingency	15%	$730,862
Mobilization	10%	$487,241
Preconstruction Engineering	8%	$389,793
Construction Engineering	8%	$389,793
Total Project Costs		**$6,871,000**
Springville City's Responsibility		**16%**
		$1,100,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**54**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

2250 West Extension to 1150 North

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	34,400	$137,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	3	$6,614
Roadway Excavation	C.Y.	$10.50	5,893	$61,872
HMA Concrete	Ton	$85.00	1,541	$131,009
Untreated Base Course	C.Y.	$10.00	1,964	$19,642
Granular Borrow	C.Y.	$40.00	4,419	$176,778
Curb and Gutter (2' width)	L.F.	$22.50	4,300	$96,750
Sidewalk (5' width)	L.F.	$25.00	4,300	$107,500
Drainage	L.F.	$45.00	4,300	$193,500
Right of Way	S.F.	$4.00	144,050	$576,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,150	$10,750
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,518,215**

Contingency	15%	$227,732
Mobilization	10%	$151,821
Preconstruction Engineering	8%	$121,457
Construction Engineering	8%	$121,457
Total Project Costs		**$2,141,000**
Springville City's Responsibility		**6%**
		$129,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**55**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Center Street: Extension to Western Border

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	92,800	$371,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	10	$19,174
Roadway Excavation	C.Y.	$10.50	18,044	$189,467
HMA Concrete	Ton	$85.00	4,720	$401,179
Untreated Base Course	C.Y.	$10.00	6,015	$60,148
Granular Borrow	C.Y.	$40.00	13,533	$541,333
Curb and Gutter (2' width)	L.F.	$22.50	11,600	$261,000
Sidewalk (5' width)	L.F.	$25.00	11,600	$290,000
Drainage	L.F.	$45.00	11,600	$522,000
Right of Way	S.F.	$4.00	417,600	$1,670,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	5,800	$29,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$4,354,900**

Contingency	15%	$653,235
Mobilization	10%	$435,490
Preconstruction Engineering	8%	$348,392
Construction Engineering	8%	$348,392
Total Project Costs		**$6,141,000**

Springville City's Responsibility	**16%**
	$983,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**56**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Center Street Widening: I-15 to 2600 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	92,800	$371,200
Removal of Existing Asphalt	S.Y.	$4.00	18,689	$74,756
Clearing and Grubbing	Acre	$2,000.00	2	$3,462
Roadway Excavation	C.Y.	$10.50	5,585	$58,644
HMA Concrete	Ton	$85.00	4,720	$401,179
Untreated Base Course	C.Y.	$10.00	1,862	$18,617
Granular Borrow	C.Y.	$40.00	4,189	$167,556
Curb and Gutter (2' width)	L.F.	$22.50	11,600	$261,000
Sidewalk (5' width)	L.F.	$25.00	11,600	$290,000
Drainage	L.F.	$45.00	11,600	$522,000
Right of Way	S.F.	$4.00	75,400	$301,600
Removal of Existing Curb and Gutter	L.F.	$5.00	11,600	$58,000
Grind Existing Asphalt	S.F.	$5.00	168,200	$841,000
Restriping	L.F.	$5.00	5,800	$29,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,398,013**

Contingency	15%	$509,702
Mobilization	10%	$339,801
Preconstruction Engineering	8%	$271,841
Construction Engineering	8%	$271,841
Total Project Costs		**$4,792,000**

Springville City's Responsibility	**6%**
	$288,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**57**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1600 South Alternative Alignment:

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	426,646	$1,706,586
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	62	$124,879
Roadway Excavation	C.Y.	$10.50	142,215	$1,493,262
HMA Concrete	Ton	$85.00	49,598	$4,215,800
Untreated Base Course	C.Y.	$10.00	47,405	$474,052
Granular Borrow	C.Y.	$40.00	106,662	$4,266,464
Curb and Gutter (2' width)	L.F.	$22.50	53,331	$1,199,943
Sidewalk (5' width)	L.F.	$25.00	53,331	$1,333,270
Drainage	L.F.	$45.00	53,331	$2,399,886
Right of Way	S.F.	$4.00	2,719,871	$10,879,483
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	26,665	$133,327
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$28,226,950**

Contingency	15%	$4,234,043
Mobilization	10%	$2,822,695
Preconstruction Engineering	8%	$2,258,156
Construction Engineering	8%	$2,258,156
Total Project Costs		**$39,800,000**
Springville City's Responsibility		**7%**
		$2,695,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**58**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Roundabout: Canyon Road and 620 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**59**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Roundabout**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

900 South: 1750 West to 1500 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	30,400	$121,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	1	$2,792
Roadway Excavation	C.Y.	$10.50	5,911	$62,067
HMA Concrete	Ton	$85.00	1,546	$131,421
Untreated Base Course	C.Y.	$10.00	1,970	$19,704
Granular Borrow	C.Y.	$40.00	4,433	$177,333
Curb and Gutter (2' width)	L.F.	$22.50	3,800	$85,500
Sidewalk (5' width)	L.F.	$25.00	3,800	$95,000
Drainage	L.F.	$45.00	3,800	$171,000
Right of Way	S.F.	$4.00	60,800	$243,200
Removal of Existing Curb and Gutter	L.F.	$5.00	3,800	$19,000
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,900	$9,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,138,116**

Contingency	15%	$170,717
Mobilization	10%	$113,812
Preconstruction Engineering	8%	$91,049
Construction Engineering	8%	$91,049
Total Project Costs		**$1,605,000**

Springville City's Responsibility	**6%**
	$97,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**60**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1750 West: 400 South to Center Street

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	32,800	$131,200
Removal of Existing Asphalt	S.Y.	$4.00	11,844	$47,378
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	3,037	$31,889
HMA Concrete	Ton	$85.00	3,125	$265,586
Untreated Base Course	C.Y.	$10.00	1,012	$10,123
Granular Borrow	C.Y.	$40.00	2,278	$91,111
Curb and Gutter (2' width)	L.F.	$22.50	4,100	$92,250
Sidewalk (5' width)	L.F.	$25.00	4,100	$102,500
Drainage	L.F.	$45.00	4,100	$184,500
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	4,100	$20,500
Grind Existing Asphalt	S.F.	$5.00	106,600	$533,000
Restriping	L.F.	$5.00	2,050	$10,250
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,520,287**

Contingency	15%	$228,043
Mobilization	10%	$152,029
Preconstruction Engineering	8%	$121,623
Construction Engineering	8%	$121,623
Total Project Costs		**$2,144,000**
Springville City's Responsibility		**50%**
		$1,072,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**61**
HMA Thickness (in) =	4	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Traffic Signal: Main Street & 900 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$180,000**

Contingency	15%	$27,000
Mobilization	10%	$18,000
Preconstruction Engineering	8%	$14,400
Construction Engineering	8%	$14,400
Total Project Costs		**$254,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**62**
HMA Thickness (in) =	3	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Roundabout: 900 South and 800 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**63**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Roundabout**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

950 West Realignment: 700 North to 1000 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	22,400	$89,600
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$4,628
Roadway Excavation	C.Y.	$10.50	4,356	$45,733
HMA Concrete	Ton	$85.00	1,139	$96,836
Untreated Base Course	C.Y.	$10.00	1,452	$14,519
Granular Borrow	C.Y.	$40.00	3,267	$130,667
Curb and Gutter (2' width)	L.F.	$22.50	2,800	$63,000
Sidewalk (5' width)	L.F.	$25.00	2,800	$70,000
Drainage	L.F.	$45.00	2,800	$126,000
Right of Way	S.F.	$4.00	100,800	$403,200
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,400	$7,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,051,183**

Contingency	15%	$157,677
Mobilization	10%	$105,118
Preconstruction Engineering	8%	$84,095
Construction Engineering	8%	$84,095
Total Project Costs		**$1,483,000**
Springville City's Responsibility		**16%**
		$245,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**64**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Frontage Road Realignment: North of 1150 North to New Road (Project 12)

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	19,744	$78,976
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$3,796
Roadway Excavation	C.Y.	$10.50	3,382	$35,512
HMA Concrete	Ton	$85.00	885	$75,193
Untreated Base Course	C.Y.	$10.00	1,127	$11,274
Granular Borrow	C.Y.	$40.00	2,537	$101,462
Curb and Gutter (2' width)	L.F.	$22.50	2,468	$55,530
Sidewalk (5' width)	L.F.	$25.00	2,468	$61,700
Drainage	L.F.	$45.00	2,468	$111,060
Right of Way	S.F.	$4.00	82,678	$330,712
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,234	$6,170
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,371,385**

Contingency	15%	$205,708
Mobilization	10%	$137,138
Preconstruction Engineering	8%	$109,711
Construction Engineering	8%	$109,711
Total Project Costs		**$1,934,000**
Springville City's Responsibility		**6%**
		$117,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**65**
HMA Thickness (in) =	3	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1500 West: 1000 North to 300 North

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	84,800	$339,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	8	$16,304
Roadway Excavation	C.Y.	$10.50	14,526	$152,522
HMA Concrete	Ton	$85.00	3,799	$322,952
Untreated Base Course	C.Y.	$10.00	4,842	$48,420
Granular Borrow	C.Y.	$40.00	10,894	$435,778
Curb and Gutter (2' width)	L.F.	$22.50	10,600	$238,500
Sidewalk (5' width)	L.F.	$25.00	10,600	$265,000
Drainage	L.F.	$45.00	10,600	$477,000
Right of Way	S.F.	$4.00	355,100	$1,420,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	5,300	$26,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,742,576**

Contingency	15%	$561,386
Mobilization	10%	$374,258
Preconstruction Engineering	8%	$299,406
Construction Engineering	8%	$299,406
Total Project Costs		**$5,278,000**
Springville City's Responsibility		**16%**
		$845,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**66**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

900 South: 1500 West to 1200 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	28,800	$115,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	3	$5,950
Roadway Excavation	C.Y.	$10.50	5,600	$58,800
HMA Concrete	Ton	$85.00	1,465	$124,504
Untreated Base Course	C.Y.	$10.00	1,867	$18,667
Granular Borrow	C.Y.	$40.00	4,200	$168,000
Curb and Gutter (2' width)	L.F.	$22.50	3,600	$81,000
Sidewalk (5' width)	L.F.	$25.00	3,600	$90,000
Drainage	L.F.	$45.00	3,600	$162,000
Right of Way	S.F.	$4.00	129,600	$518,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,800	$9,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,351,521**

Contingency	15%	$202,728
Mobilization	10%	$135,152
Preconstruction Engineering	8%	$108,122
Construction Engineering	8%	$108,122
Total Project Costs		**$1,906,000**

Springville City's Responsibility	**16%**
	$305,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**67**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1500 West Extension to 1000 S

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	19,200	$76,800
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	2	$3,967
Roadway Excavation	C.Y.	$10.50	3,733	$39,200
HMA Concrete	Ton	$85.00	977	$83,003
Untreated Base Course	C.Y.	$10.00	1,244	$12,444
Granular Borrow	C.Y.	$40.00	2,800	$112,000
Curb and Gutter (2' width)	L.F.	$22.50	2,400	$54,000
Sidewalk (5' width)	L.F.	$25.00	2,400	$60,000
Drainage	L.F.	$45.00	2,400	$108,000
Right of Way	S.F.	$4.00	86,400	$345,600
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,200	$6,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$901,014**

Contingency	15%	$135,152
Mobilization	10%	$90,101
Preconstruction Engineering	8%	$72,081
Construction Engineering	8%	$72,081
Total Project Costs		**$1,271,000**

Springville City's Responsibility	**16%**
	$204,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**68**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

700 South New Road: 950 West to 450 West

Minor Collector with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	57,600	$230,400
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	6	$12,727
Roadway Excavation	C.Y.	$10.50	11,200	$117,600
HMA Concrete	Ton	$85.00	2,930	$249,008
Untreated Base Course	C.Y.	$10.00	3,733	$37,333
Granular Borrow	C.Y.	$40.00	8,400	$336,000
Curb and Gutter (2' width)	L.F.	$22.50	7,200	$162,000
Sidewalk (5' width)	L.F.	$25.00	7,200	$180,000
Drainage	L.F.	$45.00	7,200	$324,000
Right of Way	S.F.	$4.00	277,200	$1,108,800
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	3,600	$18,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,775,868**

Contingency	15%	$416,380
Mobilization	10%	$277,587
Preconstruction Engineering	8%	$222,069
Construction Engineering	8%	$222,069
Total Project Costs		**$3,914,000**

Springville City's Responsibility	**6%**
	$235,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**69**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

450 West New Road: 700 South to 1600 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	99,200	$396,800
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	10	$20,496
Roadway Excavation	C.Y.	$10.50	19,289	$202,533
HMA Concrete	Ton	$85.00	5,045	$428,846
Untreated Base Course	C.Y.	$10.00	6,430	$64,296
Granular Borrow	C.Y.	$40.00	14,467	$578,667
Curb and Gutter (2' width)	L.F.	$22.50	12,400	$279,000
Sidewalk (5' width)	L.F.	$25.00	12,400	$310,000
Drainage	L.F.	$45.00	12,400	$558,000
Right of Way	S.F.	$4.00	446,400	$1,785,600
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	6,200	$31,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$4,655,238**

Contingency	15%	$698,286
Mobilization	10%	$465,524
Preconstruction Engineering	8%	$372,419
Construction Engineering	8%	$372,419
Total Project Costs		**$6,564,000**
Springville City's Responsibility		**16%**
		$1,051,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**70**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

700 South: 1600 South to Project 46

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	88,800	$355,200
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	9	$17,073
Roadway Excavation	C.Y.	$10.50	15,211	$159,717
HMA Concrete	Ton	$85.00	3,979	$338,186
Untreated Base Course	C.Y.	$10.00	5,070	$50,704
Granular Borrow	C.Y.	$40.00	11,408	$456,333
Curb and Gutter (2' width)	L.F.	$22.50	11,100	$249,750
Sidewalk (5' width)	L.F.	$25.00	11,100	$277,500
Drainage	L.F.	$45.00	11,100	$499,500
Right of Way	S.F.	$4.00	371,850	$1,487,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	5,550	$27,750
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$3,919,112**

Contingency	15%	$587,867
Mobilization	10%	$391,911
Preconstruction Engineering	8%	$313,529
Construction Engineering	8%	$313,529
Total Project Costs		**$5,526,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**71**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1200 West Intersection Improvements

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	7	$3,500,000
Traffic Signal	Each	$180,000	1	$180,000
			Subtotal	**$3,680,000**

Contingency	15%	$552,000
Mobilization	10%	$368,000
Preconstruction Engineering	8%	$294,400
Construction Engineering	8%	$294,400
Total Project Costs		**$5,189,000**

Springville City's Responsibility	**100%**	**$5,189,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**72**
HMA Thickness (in) =	4	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Intersection Improvement: 1000 N & 1200 W

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$500,000**

Contingency	15%	$75,000
Mobilization	10%	$50,000
Preconstruction Engineering	8%	$40,000
Construction Engineering	8%	$40,000
Total Project Costs		**$705,000**

Springville City's Responsibility	**100%**
	$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**73**
HMA Thickness (in) =	4	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Traffic Signal**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Main Street/US-89 Interchange Reconstruction

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	191,144	$764,578
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	28	$55,948
Roadway Excavation	C.Y.	$10.50	63,715	$669,005
HMA Concrete	Ton	$85.00	22,221	$1,888,746
Untreated Base Course	C.Y.	$10.00	21,238	$212,383
Granular Borrow	C.Y.	$40.00	47,786	$1,911,444
Curb and Gutter (2' width)	L.F.	$22.50	23,893	$537,594
Sidewalk (5' width)	L.F.	$25.00	23,893	$597,326
Drainage	L.F.	$45.00	23,893	$1,075,187
Right of Way	S.F.	$4.00	1,218,546	$4,874,182
Removal of Existing Curb and Gutter	L.F.	$5.00	23,893	$119,465
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	11,947	$59,733
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$12,765,591**

Contingency	15%	$1,914,839
Mobilization	10%	$1,276,559
Preconstruction Engineering	8%	$1,021,247
Construction Engineering	8%	$1,021,247
Total Project Costs		**$18,000,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**74**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Interchange**
Granual Borrow Thickness (in) =	18	st from 2050 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Fox Ridge Roadway Reimbursement - 600 S & 100 W

600 South (8' additional roadway width + taper)

CL Length	430	FT	
Additional Asphalt*	3965	SF	
Additional ROW	2189	SF	(4' additional)

**Includes the taper and receiving lane widths*

100 West (8' additional roadway width)

CL Length	563	FT	
Additional Asphalt	4504	SF	
Additional ROW	2252	SF	(4' additional)

Costs

4" Asphalt	$ 1.30	SF	
8" UTBC	$ 1.05	SF	
12" E-Fill	$ 1.20	SF	
ROW Property*	$ 2.30	SF	

**Valuation based on comps in the area - $100,000/acre*

RB CONSTRUCTION

DATE: 4/26/2019
PROJECT: Fox Ridge Condominiums

BID PROPOSAL - 600 South Road Widening

NO.	DESCRIPTION			TOTAL
1)	MOBILIZATION / GENERAL CONDITIONS			EXCLUDED
2)	TESTING			EXCLUDED
3)	SURVEY			EXCLUDED
4)	TRAFFIC CONTROL			EXCLUDED
5)	BMPs			EXCLUDED
6)	SITE DEMOLITION		$	844.00
7)	CLEAR & GRUB		$	480.00
8)	SEWER			EXCLUDED
9)	STORM DRAIN / LOW IMPACT DEVELOPMENT			EXCLUDED
10)	WATER			EXCLUDED
11)	PRESSURIZED IRRIGATION			EXCLUDED
12)	DRY UTILITIES			EXCLUDED
13)	CUT & FILL			EXCLUDED
14)	EXCAVATE FOOTINGS & FOUNDATIONS			EXCLUDED
15)	OVER-EXCAVATION & STRUCTURAL FILL			EXCLUDED
16)	GRADING			EXCLUDED
17)	BUILDING PAD PREP			EXCLUDED
18)	SITE CONCRETE PREP			EXCLUDED
19)	Supply & Install 8" Roadbase	8466 SF	$	8,889.30
20)	Supply & Install 12" Structural Fill	8466 SF	$	10,159.20
21)	Supply & Install 3" Ashalt PG 58-28 or PG 64-22	8466 SF	$	11,005.80
22)	PAVEMENT MARKING			EXCLUDED
23)	TRAFFIC & PARKING SIGNS			EXCLUDED
24)	MISCELANEOUS SITE WORK			EXCLUDED

EXCLUSIONS

Permits, Fees, Bonding, UDOT Encroachment Permits, UDOT Standards, Engineering, Winter Conditions, Snow Removal, Groundwater Pumping/Control, Soil Stabilization, Rock Excavation, Swimming Pool Excavation, Topsoil, Rock Mulch, Sleeves for Other Trades, Irrigation, Landscaping, Gas, Electric, Electrical Demolition, Trenching for Underground Electric, Light Poles, Structural Concrete, Concrete Stairs, Cold Weather Concrete, Concrete & Asphalt Pricing Subject to Market Change

600 South Road Widening **BID TOTAL $** **31,378.30**

Office: 801-794-1330 | 946 East 800 North, Suite C | Spanish Fork UT 84660

Totals

Item	Amount	Unit	Unit Cost	Total Cost
Roadway	8469	SF	$ 3.55	**$ 30,064.95**
Additional ROW	4441	SF	$ 2.30	**$ 10,195.13**

TOTAL **$ 40,260.08**

Springville City
Transportation Master Plan

500 North New Road with Overpass: 2250 West to 400 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	309,853	$1,239,413
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	32	$64,019
Roadway Excavation	C.Y.	$10.50	60,249	$632,617
HMA Concrete	Ton	$85.00	15,759	$1,339,510
Untreated Base Course	C.Y.	$10.00	20,083	$200,831
Granular Borrow	C.Y.	$40.00	45,187	$1,807,478
Curb and Gutter (2' width)	L.F.	$22.50	38,732	$871,463
Sidewalk (5' width)	L.F.	$25.00	38,732	$968,292
Drainage	L.F.	$45.00	38,732	$1,742,925
Right of Way	S.F.	$4.00	1,394,340	$5,577,360
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	19,366	$96,829
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
Bridge/ Culvert	S.F.	$225	15,750	$3,543,750
			Subtotal	**$18,084,487**

Contingency	15%	$2,712,673
Mobilization	10%	$1,808,449
Preconstruction Engineering	8%	$1,446,759
Construction Engineering	8%	$1,446,759
Total Project Costs		**$25,500,000**

Springville City's Responsibility	**6.77%**
	$1,727,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**76**
HMA Thickness (in) =	3	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1200 East Extension to 100 East: 400 South to 900 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	43,200	$172,800
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	4	$8,926
Roadway Excavation	C.Y.	$10.50	8,400	$88,200
HMA Concrete	Ton	$85.00	2,197	$186,756
Untreated Base Course	C.Y.	$10.00	2,800	$28,000
Granular Borrow	C.Y.	$40.00	6,300	$252,000
Curb and Gutter (2' width)	L.F.	$22.50	5,400	$121,500
Sidewalk (5' width)	L.F.	$25.00	5,400	$135,000
Drainage	L.F.	$45.00	5,400	$243,000
Right of Way	S.F.	$4.00	194,400	$777,600
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,700	$13,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,027,281**

Contingency	15%	$304,092
Mobilization	10%	$202,728
Preconstruction Engineering	8%	$162,182
Construction Engineering	8%	$162,182
Total Project Costs		**$2,859,000**

Springville City's Responsibility	**100%**
	$2,859,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**77**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**New Road**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

800 East/700 East Widening: 900 South to 1355 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	46,448	$185,792
Removal of Existing Asphalt	S.Y.	$4.00	11,612	$46,448
Clearing and Grubbing	Acre	$2,000.00	2	$3,199
Roadway Excavation	C.Y.	$10.50	1,290	$13,547
HMA Concrete	Ton	$85.00	2,362	$200,797
Untreated Base Course	C.Y.	$10.00	430	$4,301
Granular Borrow	C.Y.	$40.00	968	$38,707
Curb and Gutter (2' width)	L.F.	$22.50	5,806	$130,635
Sidewalk (5' width)	L.F.	$25.00	5,806	$145,150
Drainage	L.F.	$45.00	5,806	$261,270
Right of Way	S.F.	$4.00	69,672	$278,688
Removal of Existing Curb and Gutter	L.F.	$5.00	5,806	$29,030
Grind Existing Asphalt	S.F.	$5.00	104,508	$522,540
Restriping	L.F.	$5.00	2,903	$14,515
Roundabout	Each	$500,000	1	$500,000
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,374,619**

Contingency	15%	$356,193
Mobilization	10%	$237,462
Preconstruction Engineering	8%	$189,969
Construction Engineering	8%	$189,969
Total Project Costs		**$3,349,000**

Springville City's Responsibility	**100%**
	$3,349,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**78**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

700 South Widening 400 West to Main Street

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	25,600	$102,400
Removal of Existing Asphalt	S.Y.	$4.00	3,556	$14,222
Clearing and Grubbing	Acre	$2,000.00	1	$1,469
Roadway Excavation	C.Y.	$10.50	2,607	$27,378
HMA Concrete	Ton	$85.00	1,302	$110,670
Untreated Base Course	C.Y.	$10.00	869	$8,691
Granular Borrow	C.Y.	$40.00	1,956	$78,222
Curb and Gutter (2' width)	L.F.	$22.50	3,200	$72,000
Sidewalk (5' width)	L.F.	$25.00	3,200	$80,000
Drainage	L.F.	$45.00	3,200	$144,000
Right of Way	S.F.	$4.00	32,000	$128,000
Removal of Existing Curb and Gutter	L.F.	$5.00	3,200	$16,000
Grind Existing Asphalt	S.F.	$5.00	32,000	$160,000
Restriping	L.F.	$5.00	1,600	$8,000
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$951,053**

Contingency	15%	$142,658
Mobilization	10%	$95,105
Preconstruction Engineering	8%	$76,084
Construction Engineering	8%	$76,084
Total Project Costs		**$1,341,000**

Springville City's Responsibility	**100%**
	$1,341,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**79**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Capacity Improvement**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 S: Spanish Fork Main Street to New Road (Project 54)

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	1,167	$4,668
Clearing and Grubbing	Acre	$2,000.00	0	$964
Roadway Excavation	C.Y.	$10.50	3,267	$34,300
HMA Concrete	Ton	$85.00	1,139	$96,836
Untreated Base Course	C.Y.	$10.00	1,089	$10,889
Granular Borrow	C.Y.	$40.00	2,450	$98,000
Curb and Gutter (2' width)	L.F.	$22.50	4,200	$94,500
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	4,200	$189,000
Right of Way	S.F.	$4.00	21,000	$84,000
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,100	$10,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$623,657**

Contingency	15%	$93,549
Mobilization	10%	$62,366
Preconstruction Engineering	8%	$49,893
Construction Engineering	8%	$49,893
Total Project Costs		**$880,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**80**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Spanish Fork Main Street: 400 South to South Border

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	76,053	$304,213
Removal of Existing Asphalt	S.Y.	$4.00	717	$2,868
Clearing and Grubbing	Acre	$2,000.00	3	$5,020
Roadway Excavation	C.Y.	$10.50	7,746	$81,335
HMA Concrete	Ton	$85.00	2,701	$229,625
Untreated Base Course	C.Y.	$10.00	2,582	$25,821
Granular Borrow	C.Y.	$40.00	5,810	$232,385
Curb and Gutter (2' width)	L.F.	$22.50	1,918	$43,155
Sidewalk (5' width)	L.F.	$25.00	1,918	$47,950
Drainage	L.F.	$45.00	9,507	$427,799
Right of Way	S.F.	$4.00	109,326	$437,306
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	4,753	$23,767
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,861,243**

Contingency	15%	$279,186
Mobilization	10%	$186,124
Preconstruction Engineering	8%	$148,899
Construction Engineering	8%	$148,899
Total Project Costs		**$2,625,000**
Springville City's Responsibility		**6.77%**
		$178,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**81**
HMA Thickness (in) =	4	Funding:	**Springville/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

2000 West: 1150 North to Center Street

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	2,202	$8,808
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	2,643	$27,755
HMA Concrete	Ton	$85.00	691	$58,769
Untreated Base Course	C.Y.	$10.00	881	$8,811
Granular Borrow	C.Y.	$40.00	1,983	$79,300
Curb and Gutter (2' width)	L.F.	$22.50	6,063	$136,418
Sidewalk (5' width)	L.F.	$25.00	3,965	$99,125
Drainage	L.F.	$45.00	7,930	$356,850
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	3,965	$19,825
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$795,660**

Contingency	15%	$119,349
Mobilization	10%	$79,566
Preconstruction Engineering	8%	$63,653
Construction Engineering	8%	$63,653
Total Project Costs		**$1,122,000**
Springville City's Responsibility		**50%**
		$561,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	3
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No.	**82**
Funding:	**Springville**
Type:	**Incomplete Street**

Springville City
Transportation Master Plan

350 East: Neways International to Freeway Fencing

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	1,000	$4,000
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	2,504	$26,289
HMA Concrete	Ton	$85.00	655	$55,664
Untreated Base Course	C.Y.	$10.00	835	$8,346
Granular Borrow	C.Y.	$40.00	1,878	$75,111
Curb and Gutter (2' width)	L.F.	$22.50	1,800	$40,500
Sidewalk (5' width)	L.F.	$25.00	1,300	$32,500
Drainage	L.F.	$45.00	2,600	$117,000
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,300	$6,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$365,910**

Contingency	15%	$54,887
Mobilization	10%	$36,591
Preconstruction Engineering	8%	$29,273
Construction Engineering	8%	$29,273
Total Project Costs		**$516,000**
Springville City's Responsibility		**30%**
		$155,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**83**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1750 West: 1400 North to 1000 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	30,400	$121,600
Removal of Existing Asphalt	S.Y.	$4.00	2,112	$8,448
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	3,941	$41,378
HMA Concrete	Ton	$85.00	1,031	$87,614
Untreated Base Course	C.Y.	$10.00	1,314	$13,136
Granular Borrow	C.Y.	$40.00	2,956	$118,222
Curb and Gutter (2' width)	L.F.	$22.50	3,800	$85,500
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	3,800	$171,000
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,900	$9,500
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$656,398**

Contingency	15%	$98,460
Mobilization	10%	$65,640
Preconstruction Engineering	8%	$52,512
Construction Engineering	8%	$52,512
Total Project Costs		**$926,000**

Springville City's Responsibility	**6%**
	$59,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**84**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1000 North: New Road (Project 52) to 1650 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	28,320	$113,280
Removal of Existing Asphalt	S.Y.	$4.00	5,310	$21,240
Clearing and Grubbing	Acre	$2,000.00	1	$2,438
Roadway Excavation	C.Y.	$10.50	1,967	$20,650
HMA Concrete	Ton	$85.00	514	$43,725
Untreated Base Course	C.Y.	$10.00	656	$6,556
Granular Borrow	C.Y.	$40.00	1,475	$59,000
Curb and Gutter (2' width)	L.F.	$22.50	3,540	$79,650
Sidewalk (5' width)	L.F.	$25.00	3,540	$88,500
Drainage	L.F.	$45.00	3,540	$159,300
Right of Way	S.F.	$4.00	53,100	$212,400
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,770	$8,850
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$815,588**

Contingency	15%	$122,338
Mobilization	10%	$81,559
Preconstruction Engineering	8%	$65,247
Construction Engineering	8%	$65,247
Total Project Costs		**$1,150,000**

Springville City's Responsibility	**6%**
	$73,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**85**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Center Street: 1750 West to 1650 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	10,880	$43,520
Removal of Existing Asphalt	S.Y.	$4.00	378	$1,512
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	453	$4,760
HMA Concrete	Ton	$85.00	119	$10,079
Untreated Base Course	C.Y.	$10.00	151	$1,511
Granular Borrow	C.Y.	$40.00	340	$13,600
Curb and Gutter (2' width)	L.F.	$22.50	1,360	$30,600
Sidewalk (5' width)	L.F.	$25.00	1,360	$34,000
Drainage	L.F.	$45.00	1,360	$61,200
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	680	$3,400
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$204,182**

Contingency	15%	$30,627
Mobilization	10%	$20,418
Preconstruction Engineering	8%	$16,335
Construction Engineering	8%	$16,335
Total Project Costs		**$288,000**
Springville City's Responsibility		**6%**
		$19,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**86**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1950 West: 500 South to 1600 South

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	5,839	$23,356
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	11,472	$120,456
HMA Concrete	Ton	$85.00	3,001	$255,055
Untreated Base Course	C.Y.	$10.00	3,824	$38,240
Granular Borrow	C.Y.	$40.00	8,604	$344,160
Curb and Gutter (2' width)	L.F.	$22.50	10,453	$235,193
Sidewalk (5' width)	L.F.	$25.00	4,000	$100,000
Drainage	L.F.	$45.00	4,000	$180,000
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	6,453	$32,265
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$1,328,724**

Contingency	15%	$199,309
Mobilization	10%	$132,872
Preconstruction Engineering	8%	$106,298
Construction Engineering	8%	$106,298
Total Project Costs		**$1,874,000**

Springville City's Responsibility	**60%**
	$1,125,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**87**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1650 West: 950 East to 3600 South

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	47,390	$189,560
Removal of Existing Asphalt	S.Y.	$4.00	5,839	$23,356
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	12,456	$130,791
HMA Concrete	Ton	$85.00	3,258	$276,939
Untreated Base Course	C.Y.	$10.00	4,152	$41,521
Granular Borrow	C.Y.	$40.00	9,342	$373,689
Curb and Gutter (2' width)	L.F.	$22.50	17,280	$388,800
Sidewalk (5' width)	L.F.	$25.00	8,690	$217,250
Drainage	L.F.	$45.00	10,510	$472,950
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	10,510	$52,550
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,167,405**

Contingency	15%	$325,111
Mobilization	10%	$216,741
Preconstruction Engineering	8%	$173,392
Construction Engineering	8%	$173,392
Total Project Costs		**$3,057,000**
Springville City's Responsibility		**16%**
		$490,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**88**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

550 North: 1500 West to 950 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	41,755	$167,020
Removal of Existing Asphalt	S.Y.	$4.00	1,093	$4,372
Clearing and Grubbing	Acre	$2,000.00	1	$2,709
Roadway Excavation	C.Y.	$10.50	1,020	$10,709
HMA Concrete	Ton	$85.00	267	$22,676
Untreated Base Course	C.Y.	$10.00	340	$3,400
Granular Borrow	C.Y.	$40.00	765	$30,598
Curb and Gutter (2' width)	L.F.	$22.50	3,940	$88,650
Sidewalk (5' width)	L.F.	$25.00	4,615	$115,375
Drainage	L.F.	$45.00	3,934	$177,030
Right of Way	S.F.	$4.00	59,010	$236,040
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,967	$9,835
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$868,414**

Contingency	15%	$130,262
Mobilization	10%	$86,841
Preconstruction Engineering	8%	$69,473
Construction Engineering	8%	$69,473
Total Project Costs		**$1,225,000**

Springville City's Responsibility	**16%**
	$202,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**89**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

950 West: 550 North to 400 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	24,250	$97,000
Removal of Existing Asphalt	S.Y.	$4.00	1,641	$6,564
Clearing and Grubbing	Acre	$2,000.00	1	$1,628
Roadway Excavation	C.Y.	$10.50	3,063	$32,166
HMA Concrete	Ton	$85.00	801	$68,108
Untreated Base Course	C.Y.	$10.00	1,021	$10,211
Granular Borrow	C.Y.	$40.00	2,298	$91,902
Curb and Gutter (2' width)	L.F.	$22.50	4,130	$92,925
Sidewalk (5' width)	L.F.	$25.00	4,850	$121,250
Drainage	L.F.	$45.00	5,470	$246,150
Right of Way	S.F.	$4.00	35,448	$141,792
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,954	$14,770
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$924,466**

Contingency	15%	$138,670
Mobilization	10%	$92,447
Preconstruction Engineering	8%	$73,957
Construction Engineering	8%	$73,957
Total Project Costs		**$1,304,000**

Springville City's Responsibility	**16%**
	$215,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**90**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 South: 1250 West to 550 East

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	9,976	$39,904
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	1,797	$44,925
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$84,829**

Contingency	15%	$12,724
Mobilization	10%	$8,483
Preconstruction Engineering	8%	$6,786
Construction Engineering	8%	$6,786
Total Project Costs		**$120,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**91**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

950 West: 400 South to 1000 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	9,935	$39,740
Removal of Existing Asphalt	S.Y.	$4.00	744	$2,976
Clearing and Grubbing	Acre	$2,000.00	1	$1,924
Roadway Excavation	C.Y.	$10.50	776	$8,148
HMA Concrete	Ton	$85.00	203	$17,253
Untreated Base Course	C.Y.	$10.00	259	$2,587
Granular Borrow	C.Y.	$40.00	582	$23,280
Curb and Gutter (2' width)	L.F.	$22.50	1,340	$30,150
Sidewalk (5' width)	L.F.	$25.00	1,987	$49,675
Drainage	L.F.	$45.00	2,328	$104,760
Right of Way	S.F.	$4.00	41,904	$167,616
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,164	$5,820
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$453,928**

Contingency	15%	$68,089
Mobilization	10%	$45,393
Preconstruction Engineering	8%	$36,314
Construction Engineering	8%	$36,314
Total Project Costs		**$641,000**
Springville City's Responsibility		**16%**
		$106,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**92**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Spring Creek Place: Approx. 800 North to 450 West

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	47,390	$189,560
Removal of Existing Asphalt	S.Y.	$4.00	5,839	$23,356
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	12,456	$130,791
HMA Concrete	Ton	$85.00	3,258	$276,939
Untreated Base Course	C.Y.	$10.00	4,152	$41,521
Granular Borrow	C.Y.	$40.00	9,342	$373,689
Curb and Gutter (2' width)	L.F.	$22.50	17,280	$388,800
Sidewalk (5' width)	L.F.	$25.00	8,690	$217,250
Drainage	L.F.	$45.00	10,510	$472,950
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	10,510	$52,550
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$2,167,405**

Contingency	15%	$325,111
Mobilization	10%	$216,741
Preconstruction Engineering	8%	$173,392
Construction Engineering	8%	$173,392
Total Project Costs		**$3,057,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**93**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

450 West: Spring Creek Place to New Road (Project 49)

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	4,410	$17,640
Removal of Existing Asphalt	S.Y.	$4.00	3,150	$12,600
Clearing and Grubbing	Acre	$2,000.00	0	$439
Roadway Excavation	C.Y.	$10.50	741	$7,782
HMA Concrete	Ton	$85.00	194	$16,477
Untreated Base Course	C.Y.	$10.00	247	$2,470
Granular Borrow	C.Y.	$40.00	556	$22,233
Curb and Gutter (2' width)	L.F.	$22.50	2,097	$47,183
Sidewalk (5' width)	L.F.	$25.00	630	$15,750
Drainage	L.F.	$45.00	2,097	$94,365
Right of Way	S.F.	$4.00	9,570	$38,280
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	8,265	$41,325
Restriping	L.F.	$5.00	435	$2,175
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$318,719**

Contingency	15%	$47,808
Mobilization	10%	$31,872
Preconstruction Engineering	8%	$25,498
Construction Engineering	8%	$25,498
Total Project Costs		**$450,000**

Springville City's Responsibility	**100%**
	$450,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**94**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 North: 400 West to 900 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	18,039	$72,156
Removal of Existing Asphalt	S.Y.	$4.00	1,776	$7,104
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	3,551	$37,287
HMA Concrete	Ton	$85.00	929	$78,951
Untreated Base Course	C.Y.	$10.00	1,184	$11,837
Granular Borrow	C.Y.	$40.00	2,663	$106,533
Curb and Gutter (2' width)	L.F.	$22.50	5,239	$117,878
Sidewalk (5' width)	L.F.	$25.00	3,019	$75,475
Drainage	L.F.	$45.00	5,239	$235,755
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	3,196	$15,980
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$758,956**

Contingency	15%	$113,843
Mobilization	10%	$75,896
Preconstruction Engineering	8%	$60,716
Construction Engineering	8%	$60,716
Total Project Costs		**$1,071,000**

Springville City's Responsibility	**100%**	**$1,071,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**95**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1400 North: Main Street to 150 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	4,879	$19,516
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	0	$0
Sidewalk (5' width)	L.F.	$25.00	697	$17,425
Drainage	L.F.	$45.00	697	$31,365
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$68,306**

Contingency	15%	$10,246
Mobilization	10%	$6,831
Preconstruction Engineering	8%	$5,464
Construction Engineering	8%	$5,464
Total Project Costs		**$97,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**96**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Main Street: 1400 North to 1060 North

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	1,822	$40,995
Sidewalk (5' width)	L.F.	$25.00	1,822	$45,550
Drainage	L.F.	$45.00	1,822	$81,990
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$168,535**

Contingency	15%	$25,280
Mobilization	10%	$16,854
Preconstruction Engineering	8%	$13,483
Construction Engineering	8%	$13,483
Total Project Costs		**$238,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**97**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

1150 North: Main Street to 200 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	732	$16,470
Sidewalk (5' width)	L.F.	$25.00	732	$18,300
Drainage	L.F.	$45.00	732	$32,940
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$67,710**

Contingency	15%	$10,157
Mobilization	10%	$6,771
Preconstruction Engineering	8%	$5,417
Construction Engineering	8%	$5,417
Total Project Costs		**$96,000**
Springville City's Responsibility		**50%**
		$48,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**98**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

US-89: 800 South to 400 East

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	23,380	$93,520
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	3,340	$75,150
Sidewalk (5' width)	L.F.	$25.00	3,340	$83,500
Drainage	L.F.	$45.00	3,340	$150,300
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$402,470**

Contingency	15%	$60,371
Mobilization	10%	$40,247
Preconstruction Engineering	8%	$32,198
Construction Engineering	8%	$32,198
Total Project Costs		**$568,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**99**
HMA Thickness (in) =	4	Funding:	**UDOT**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 East/2000 South: US-89 to Railroad Tracks

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	7,112	$28,448
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	2,584	$58,140
Sidewalk (5' width)	L.F.	$25.00	1,012	$25,300
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$111,888**

Contingency	15%	$16,783
Mobilization	10%	$11,189
Preconstruction Engineering	8%	$8,951
Construction Engineering	8%	$8,951
Total Project Costs		**$158,000**

Springville City's Responsibility	**100%**
	$158,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**100**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

880 East: 1125 North to 800 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	757	$3,028
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	2,320	$24,365
HMA Concrete	Ton	$85.00	607	$51,590
Untreated Base Course	C.Y.	$10.00	773	$7,735
Granular Borrow	C.Y.	$40.00	1,740	$69,613
Curb and Gutter (2' width)	L.F.	$22.50	1,362	$30,645
Sidewalk (5' width)	L.F.	$25.00	1,362	$34,050
Drainage	L.F.	$45.00	1,362	$61,290
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,362	$6,810
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$289,126**

Contingency	15%	$43,369
Mobilization	10%	$28,913
Preconstruction Engineering	8%	$23,130
Construction Engineering	8%	$23,130
Total Project Costs		**$408,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**101**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

800 East: Center Street to 100 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	0	$0
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	491	$11,048
Sidewalk (5' width)	L.F.	$25.00	0	$0
Drainage	L.F.	$45.00	0	$0
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	0	$0
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$11,048**

Contingency	15%	$1,657
Mobilization	10%	$1,105
Preconstruction Engineering	8%	$884
Construction Engineering	8%	$884
Total Project Costs		**$16,000**

Springville City's Responsibility	**100%**
	$16,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**102**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

800 East: Brookside Drive to 650 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	89	$356
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	201	$2,116
HMA Concrete	Ton	$85.00	53	$4,480
Untreated Base Course	C.Y.	$10.00	67	$672
Granular Borrow	C.Y.	$40.00	151	$6,044
Curb and Gutter (2' width)	L.F.	$22.50	580	$13,050
Sidewalk (5' width)	L.F.	$25.00	580	$14,500
Drainage	L.F.	$45.00	580	$26,100
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	160	$800
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$68,117**

Contingency	15%	$10,218
Mobilization	10%	$6,812
Preconstruction Engineering	8%	$5,449
Construction Engineering	8%	$5,449
Total Project Costs		**$97,000**

Springville City's Responsibility	**100%**
	$97,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**103**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

900 East: 400 North to 200 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	751	$3,004
Removal of Existing Asphalt	S.Y.	$4.00	4,503	$18,013
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	0	$0
HMA Concrete	Ton	$85.00	0	$0
Untreated Base Course	C.Y.	$10.00	0	$0
Granular Borrow	C.Y.	$40.00	0	$0
Curb and Gutter (2' width)	L.F.	$22.50	965	$21,713
Sidewalk (5' width)	L.F.	$25.00	965	$24,125
Drainage	L.F.	$45.00	965	$43,425
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	965	$4,825
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$115,105**

Contingency	15%	$17,266
Mobilization	10%	$11,510
Preconstruction Engineering	8%	$9,208
Construction Engineering	8%	$9,208
Total Project Costs		**$163,000**

Springville City's Responsibility	**100%**
	$163,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**104**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

620 South/1300 East: Canyon Road to 900 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	615	$2,460
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	1,230	$12,915
HMA Concrete	Ton	$85.00	322	$27,346
Untreated Base Course	C.Y.	$10.00	410	$4,100
Granular Borrow	C.Y.	$40.00	923	$36,900
Curb and Gutter (2' width)	L.F.	$22.50	1,107	$24,908
Sidewalk (5' width)	L.F.	$25.00	1,107	$27,675
Drainage	L.F.	$45.00	1,107	$49,815
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,107	$5,535
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$191,654**

Contingency	15%	$28,748
Mobilization	10%	$19,165
Preconstruction Engineering	8%	$15,332
Construction Engineering	8%	$15,332
Total Project Costs		**$271,000**

Springville City's Responsibility	**50%**
	$136,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**105**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Center Street/2080 East: Spring Oaks Drive to New Road

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	1,974	$7,896
Removal of Existing Asphalt	S.Y.	$4.00	270	$1,080
Clearing and Grubbing	Acre	$2,000.00	0	$580
Roadway Excavation	C.Y.	$10.50	1,044	$10,962
HMA Concrete	Ton	$85.00	273	$23,211
Untreated Base Course	C.Y.	$10.00	348	$3,480
Granular Borrow	C.Y.	$40.00	783	$31,320
Curb and Gutter (2' width)	L.F.	$22.50	972	$21,870
Sidewalk (5' width)	L.F.	$25.00	1,688	$42,200
Drainage	L.F.	$45.00	972	$43,740
Right of Way	S.F.	$4.00	12,636	$50,544
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	486	$2,430
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$239,313**

Contingency	15%	$35,897
Mobilization	10%	$23,931
Preconstruction Engineering	8%	$19,145
Construction Engineering	8%	$19,145
Total Project Costs		**$338,000**

Springville City's Responsibility	**0%**
	$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**106**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

400 South: 1850 East to 1950 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	2,331	$9,324
Removal of Existing Asphalt	S.Y.	$4.00	185	$740
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	370	$3,885
HMA Concrete	Ton	$85.00	97	$8,226
Untreated Base Course	C.Y.	$10.00	123	$1,233
Granular Borrow	C.Y.	$40.00	278	$11,100
Curb and Gutter (2' width)	L.F.	$22.50	333	$7,493
Sidewalk (5' width)	L.F.	$25.00	333	$8,325
Drainage	L.F.	$45.00	333	$14,985
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	333	$1,665
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$66,976**

Contingency	15%	$10,046
Mobilization	10%	$6,698
Preconstruction Engineering	8%	$5,358
Construction Engineering	8%	$5,358
Total Project Costs		**$95,000**

Springville City's Responsibility	**100%**
	$95,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**107**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

2080 East: 700 South to Canyon Road

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	8,470	$33,880
Removal of Existing Asphalt	S.Y.	$4.00	673	$2,692
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	1,524	$15,999
HMA Concrete	Ton	$85.00	399	$33,876
Untreated Base Course	C.Y.	$10.00	508	$5,079
Granular Borrow	C.Y.	$40.00	1,143	$45,711
Curb and Gutter (2' width)	L.F.	$22.50	1,210	$27,225
Sidewalk (5' width)	L.F.	$25.00	1,210	$30,250
Drainage	L.F.	$45.00	1,210	$54,450
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	1,210	$6,050
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$255,212**

Contingency	15%	$38,282
Mobilization	10%	$25,521
Preconstruction Engineering	8%	$20,417
Construction Engineering	8%	$20,417
Total Project Costs		**$360,000**

Springville City's Responsibility	**16%**
	$60,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**108**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City
Transportation Master Plan

Canyon Road: 2900 East to Southeast Border

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	$4.00	0	$0
Removal of Existing Asphalt	S.Y.	$4.00	1,562	$6,248
Clearing and Grubbing	Acre	$2,000.00	0	$0
Roadway Excavation	C.Y.	$10.50	2,707	$28,422
HMA Concrete	Ton	$85.00	708	$60,182
Untreated Base Course	C.Y.	$10.00	902	$9,023
Granular Borrow	C.Y.	$40.00	2,030	$81,207
Curb and Gutter (2' width)	L.F.	$22.50	5,622	$126,495
Sidewalk (5' width)	L.F.	$25.00	2,811	$70,275
Drainage	L.F.	$45.00	5,622	$252,990
Right of Way	S.F.	$4.00	0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0
Grind Existing Asphalt	S.F.	$5.00	0	$0
Restriping	L.F.	$5.00	2,811	$14,055
Roundabout	Each	$500,000	0	$0
Traffic Signal	Each	$180,000	0	$0
			Subtotal	**$648,897**

Contingency	15%	$97,335
Mobilization	10%	$64,890
Preconstruction Engineering	8%	$51,912
Construction Engineering	8%	$51,912
Total Project Costs		**$915,000**

Springville City's Responsibility	**100%**
	$915,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**109**
HMA Thickness (in) =	3	Funding:	**Springville**
Untreated Base Course Thickness (in) =	8	Type:	**Incomplete Street**
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		