

**Long Range Transportation Plan**

**For**

**Morgan County**

**February, 2008**

**Morgan County**  
**Long Range Transportation Plan**  
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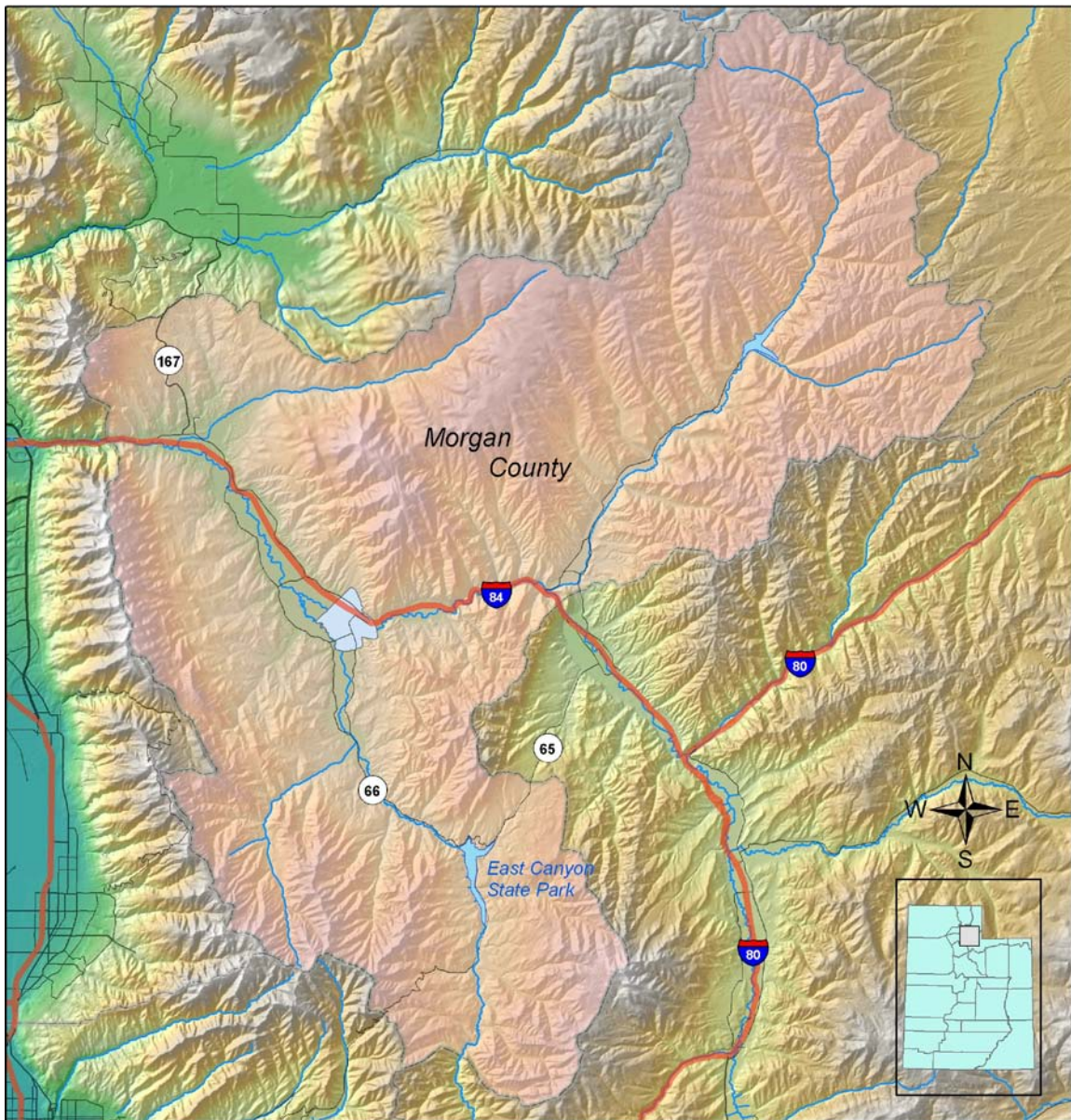
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# CHAPTER 1

## COUNTY OVERVIEW AND EXISTING CONDITIONS

### Geography

Morgan County is a rural county in northern Utah, situated east of Weber County on the Wasatch Back (Map 1). With a land area of 610 square miles, it is the smallest county in Utah. The county seat is Morgan City, the only incorporated municipality in the county. Much of Morgan County is privately owned, with public ownership consisting of Forest Service and State Park land. East Canyon State Park lies at the southern end of the county, accessible on SR66 through Morgan City.



Map 1: Morgan County

## Population

The Utah Population Estimates Committee (UPEC) estimates the July 1, 2007 population at 9,265, a 29% increase since the 2000 Census. Table 1 shows a demographic summary of the county from the 2000 Census. The county has a slightly higher median age than the state (28.5 vs. 27.1) and is less racially diverse (98.1% White vs. 89.2 % White). The Hispanic population, which is growing substantially in the state, makes up a lower percentage of the population (1.4% vs. 9.0%) than the state as a whole. Over 60% of workers in the county commute to another county for employment.

Table 1: Summary of General Demographic Characteristics-2000 Census

Subject	Number	Percent
Total population	7,129	100
<b>SEX AND AGE</b>		
Male	3,616	50.7
Female	3,513	49.3
Under 5 years	581	8.1
5 to 9 years	664	9.3
10 to 19 years	1695	23.8
20 to 44 years	2128	29.8
45 to 64 years	1441	20.2
65 to 84 years	561	7.9
85 years and over	59	0.8
Median age (years)	28.5	
<b>RACE</b>		
White	6,994	98.1
Hispanic or Latino (of any race)	103	1.4
Average household size	3.48	(X)
<b>HOUSING OCCUPANCY</b>		
Occupied housing units	2,046	94.8
Vacant housing units	112	5.2
For seasonal, recreational, or occasional use	54	2.5
<b>WORKERS 16+</b>	3,168	(X)
Work in County of Residence	1,217	38.4
Work in Other County, Same State	1,930	60.9

## Employment

According to the Utah Department of Workforce Services (DWS), Morgan County has a 2006 non-farm employment of 1,867 employed at 285 establishments. Major employers, which include education, manufacturing, and services, are listed in Table 2 below.

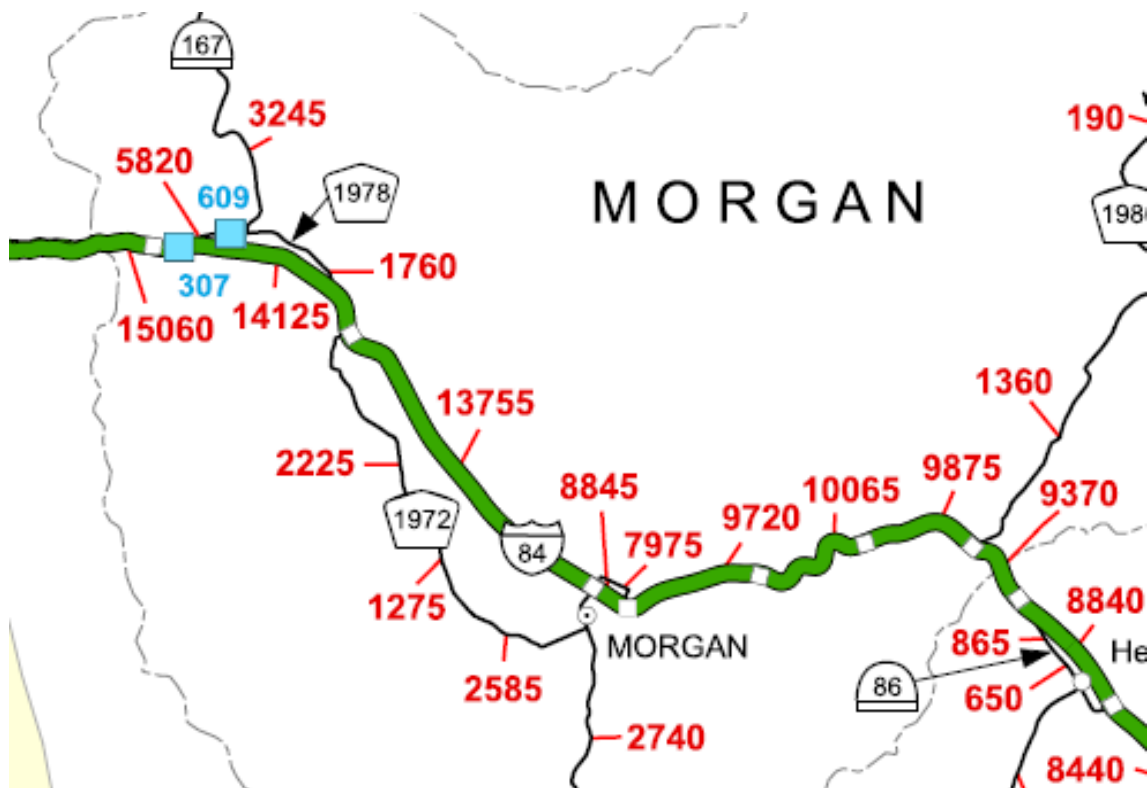
**Table 2: Major Employers**

Company	Industry	Employment
Morgan School District	Public Education	250-499
Browning	Sport & Athletic Equip. Mfg	100-249
Holcim US Inc	Cement Mfg.	100-249
Morgan County	Local Government	50-99
IGA Grocery	Grocery Store	50-99
Barber Brothers Ford Inc	Automobile Dealer	20-49
Browning Arms Company	Corporate Office	20-49
Durrant Slate Plumbing Inc	Residential Plumbing/HVAC	20-49
Larry's Spring Chicken Inn	Restaurant	20-49
Morgan Valley Food LLC	Grocery Store	20-49

Source: Utah DWS

### Traffic

Map 2 shows the most current (2006) traffic information for state roads in Morgan County. As would be expected, the highest traffic volume is on I-84 with over 13,000 vehicles daily. Volumes in Morgan City are in the 2,500 daily vehicle range. With these volumes, congestion is not an issue. Therefore, major transportation issues in Morgan County are safety and economic development related.



**Map 2: Average Annual Daily Traffic**

Source: Traffic on Utah's Highways: 2006

## CHAPTER 2

### PROJECTED FUTURE NEEDS

#### Socioeconomic Projections

With the county's location immediately east of the fast-growing Wasatch Front, the population of Morgan County is projected to outpace the urban areas in the valley. Table 3 shows the population projections for the Wasatch Front counties, as well as the state as a whole.

Table 3: Population Projections (Source: GOPB 2008 Baseline)

County	2005	2010	2020	2030	2040	2005-2040 Population Growth	2005-2040 Annual Growth Rate
Davis County	278,278	323,087	369,467	390,159	407,238	46%	1.32%
Morgan County	8,516	10,589	16,756	24,478	34,407	304%	8.68%
Salt Lake County	978,285	1,079,679	1,273,929	1,468,615	1,671,627	70%	2.02%
Tooele County	52,133	63,777	91,849	119,871	152,734	92%	5.51%
Weber County	213,684	232,696	278,256	320,634	370,523	73%	2.09%

The average annual rate of change (AARC) for Morgan County of 8.7% is more than four times the AARC of any of the urban counties and more than three times the rate for the state. Even with this high projected growth rate, a 2040 population of 34,000 will still leave Morgan County with the lowest population in the Wasatch Front Regional Council's area.

Table 4 below shows the projected total employment for the Wasatch Front Regional Council area. As with population, Morgan's annual growth rate of 10.4% is higher than any of the other counties, while the 2040 total of 16,000 will still result in the smallest employment base in the region. With employment growing at a higher rate than population, the percentage of the population commuting out of the county will drop, but the overall number will continue to grow.

Table 4: Employment Projections (Source: GOPB 2008 Baseline)

County	2005	2010	2020	2030	2040	2005-2040 Employment Growth	2005-2040 Annual Growth Rate
Davis County	140,657	169,750	200,044	209,651	215,040	53%	1.51%
Morgan County	3,434	4,212	7,676	11,497	15,918	364%	10.39%
Salt Lake County	697,280	790,393	897,257	994,647	1,112,712	60%	1.70%
Tooele County	19,285	24,998	37,469	50,980	67,842	252%	7.19%
Weber County	114,530	129,971	156,377	181,205	210,552	84%	2.40%

**Transportation Demand**

With a projected population growth rate of over 8% per year, transportation demand will continue to rise. Congestion, however, should not be a major issue, outside of some isolated locations in Morgan City and at the Mountain Green Interchange. The major concern for transportation demand is safety. Roads that were designed to accommodate a few hundred vehicles will soon be accommodating a few thousand. Curve geometry, sight distances, and bridge clearances will be the major issues that will need to be addressed. Also, as the population in the urban counties continues to expand, there will be more pressure on the recreational facilities in Morgan County. This is especially true of bike traffic to and from East Canyon State Park.

**Economic Development**

With a major interstate freeway bisecting the county, Morgan is poised for economic development. The headquarters of Browning Firearms is still located in the county, and the cement plant at Croyden is one of the major manufacturers in the county. With some spot improvements (albeit expensive ones) access to the plant, as well as the main access to Morgan City could be improved and some important barriers to economic development taken down.

## **CHAPTER 3**

### **EVALUATION PROCESS**

The process to identify and evaluate individual transportation concerns began with an interview with the County Council, Morgan City Mayor Dean Pace, city and county planners and engineers and the Senior Center advisory board. Summaries of the various interviews and meetings may be found in Appendix A. These individuals and groups identified fourteen separate transportation (mostly highway) needs within the County. The suggested projects are listed below in no order of importance:

1. Realign the road to the cement plant at the Croydon Exit off I-84 to eliminate a difficult turn for large trucks.
2. Construct a new interchange at the Trapper's Loop road to replace the Mountain Green half interchange.
3. Widen State Road 66 between Morgan City and East Canyon Reservoir to allow for bicyclists.
4. Widen Morgan Valley Drive to allow for bicyclists.
5. Fix the sight distance problem on State Road 66 in the area of Rouser Lane.
6. Construct an additional bridge over the Weber River on Young Street.
7. Upgrade the two railroad underpasses into Morgan City.
8. Widen the Old Highway, now known as 700 East, with a center turn lane and shoulders.
9. Install a traffic light if warranted at the intersection of Young Street and State Road 66.
10. Provide a second exit from Island Road, also known as 300 West which is a very long street with only one outlet.
11. A bridge over the Weber River in the area of Como Springs will be needed as the area develops.
12. Consider re-opening the east bound exit off I-84 into Morgan City which has been closed for some time.
13. Complete 600 West to Island Road.



14. Widen frontage road on the south side of I-84 between to two freeway exits in Morgan City and make it bi-directional.
15. Expand transit shuttle service for seniors and other individuals who do not drive or own a vehicle.

After interviews with the aforementioned city and county representatives, personal visits to the roads in question and examination of other relevant data, five criteria were used to evaluate each proposed project. These criteria are:

1. Economic Value—This is a rather broad term that encompasses transportation facilities that are actively used by major employers such as the Croyden exit for trucks servicing the Holcim Cement plant to roads similar to State Highway 66 that serve the general population as well as the economic interests of Morgan City. Accordingly, economic value in dollar terms is difficult to quantify. Nevertheless, an evaluation as to whether an improvement to a road or other transportation facility would have an economic effect should be based on such questions as:

Does the road serve a major employer in the County?

Is the road a major corridor for freight?

Is a substantial portion of the traffic on the road business related?

Is the road a principal means for people to access employment?

These and other questions will be discussed as part of the criteria which will then be ranked according to importance.

2. Congestion Relief—There is little congestion in Morgan County today compared to the urban areas. Nevertheless, with projected growth, it is anticipated that congestion mitigation measures and additional capacity will be needed in future years. This criterion is intended to measure relief afforded to anticipated future travel demand. All proposed road projects will have a brief statement as to the current and projected future levels of service. The Utah Department of Transportation and other highway agencies have carefully defined these levels of service as noted in Appendix B. In order to apply a given level of service to a road, a traffic study would be needed. Because such studies are beyond the scope of this evaluation, a brief reference to the level of traffic will be noted as part of this criterion.

A more complete discussion of current and projected traffic conditions and needs may be found in Chapter 3.

3. Safety—Most traffic concerns in Morgan County center on this criterion. There are several areas where there are significant safety concerns. These concerns center on sight / distance issues, turning radii for large trucks, narrow bridges, narrow and

low underpasses, approaches to bridges, bicycle lanes and poor pavement condition.

Also, a careful evaluation will be made of accident data from UDOT records found in Appendix D. The comparison of the road in question against the 'expected' crash rate or severity index is against other similar roads monitored by UDOT from across the State.

4. Pavement Condition—Most of the transportation improvements involve an evaluation of the condition of the pavement for the road in question. Clearly, this is a substantial determinant of cost and should be included in any project evaluation.

5. Cost Effectiveness of Improvements—All proposed improvements must be measured against the yardstick of cost. Obviously, small, inexpensive improvements that bring large improvements in safety, congestion relief or economic activity will be highlighted.

## CHAPTER 4

### LISTING OF PROJECTS

It should be noted that possible improvements to I-84 are not included as needed projects because the freeway was deemed as sufficient to meet existing and projected needs in its current condition. The only issues surrounding the freeway are those of general maintenance. The bridge decks on I-84 and some portions of pavement are scheduled for a major re-construction project from the mouth of Weber Canyon to the Mountain Green Interchange beginning November 2007. The freeway will not be widened. The current estimated cost of the project is \$23,345,700.

Safety on the freeway in terms of accidents is generally good. Nevertheless, the number of crashes as noted in Appendix D—Accident Data are somewhat above what would be expected on similar freeways across the State. Approximately 2/3 of all automobile accidents in Morgan County during the years 2003-2005 occurred on I-84. This is not unreasonable since 69.7% of all vehicle miles traveled (VMT) in Morgan County are on the freeway. Additional information is available regarding VMT on the UDOT website at <http://www.udot.utah.gov/main/f?p=100:pg:10255965121919957000:::V,T:530>.

State Highway 65 is not included in this chapter as a concern because it is in generally good condition with no serious safety or economic issues. It is lightly traveled and has wide shoulders for bicyclists and other safety needs. Nor was any portion of it listed as a concern by any elected or appointed city or county official. Lastly, accident and severity rates are below average.

#### **1. The Road to the Cement Plant at the Croydon Exit off I-84.**

The County owned road to the cement plant at the Croydon Exit off of I-84 is a short but important road within Morgan County because it is the principal access for the largest private employer in the County. Every working day, hundreds of large semi-trailer trucks make their way to and from the cement plant. The access over the Weber River, then under a railroad bridge followed by a sharp right turn immediately thereafter is a difficult transit for such large trucks. Generally, passage under the bridge and around the turn by a truck requires that vehicles traveling the opposite direction wait while the truck passes by. Also, the condition of the pavement is at failure with large potholes and cracks.

#### Evaluation Criteria

1. Economic Value: The road is used by hundreds of trucks every day as access to a principal employer within the County.
2. Congestion Relief: By urban standards, the road is not congested nor is it likely to become so in the next 15 years due to growth in travel demand. Traffic is, therefore,

rated light to moderate.

3. Safety: Any situation which requires alternating unregulated one-way traffic on an ongoing basis, especially involving large tractor-trailer trucks, is a safety hazard. In addition, the proximity of the Weber River to a traffic safety hazard is also a consideration. Were a truck to fall into the River with a load of cement powder or rupture its fuel tank into the water, there would be major ramifications for a principal source of drinking water for hundreds of thousands of people and questions of liability for the truck owner and the county as the owner of the road.

Nevertheless, Lost Creek Road, which includes the Croydon Exit, has only had three reported accidents in three years which puts it substantially below the expected level of crashes in comparison to the state average. Thus, even though the Exit is less than optimal, there have been few crashes.

4. Pavement Condition: Poor.

5. Cost Effectiveness of Improvements: The pavement is a problem for only a few hundred yards so repaving would not be unduly expensive. Removing the railroad bridge would be extremely expensive. Also, the railroad bridge is owned by Union Pacific which has indicated it is not interested in expensive improvements.

Widening the highway bridge over the River would be difficult because even though it could be widened, there would be insufficient clearance below the railroad bridge. However, if the river were put in a different channel that ran under the road and then parallel to the railroad tracks a little further to the west and was piped to the north side of the tracks at that point, the present channel could be used to widen the road.

A further possibility that should be evaluated is the removal of the berm supporting the tracks on the west side of the underpass and the widening of the railroad bridge at that point. The railroad grade would not have to be raised which would make this an attractive option.

Recommendations:

1. Repave the road.
2. Commission a traffic study to look at cost effective ways of mitigating the one way traffic problem.
3. Be certain to involve Union Pacific in the study.

## **2. A New Interchange at the Trapper's Loop Road to Replace the Mountain Green Half Interchange.**

The principal access for traffic accessing I-84 in western Morgan County and for traffic accessing the Trapper's Loop Highway is the Mountain Green Interchange. Presently, the interchange has only an east bound exit and a west bound entrance to I-84. It is also at the far western end of the County. The nearest alternative freeway access is the Peterson Interchange approximately 5 miles to the east.

An extensive study of the possible alternatives for a Trapper's Loop interchange, the North Morgan Transportation Study (NMTS), was completed in 2004 and can be found in its entirety in Appendix C. In the study, six alternatives were examined for need, cost, feasibility and environmental conflicts. It was determined that the status quo (the no action alternative) is increasingly unacceptable given the inconvenience of the existing Mountain Green (partial) Interchange, the continuing growth in the immediate area and the increasing use of the Trapper's Loop highway to access Snow Basin Ski Resort and other attractions in the immediate vicinity. Of the possible improvements, an interchange aligned with the Trapper's Loop Highway along I-84 was deemed the preferred alternative (NMTS p. 14).

### Evaluation Criteria

1. Economic Value: Without the assistance of a traffic study, it is assumed that most of the traffic needing to access I-84 from the area is west bound. Nevertheless, the location of the interchange and its half diamond nature is less than convenient for area residents. Also, motorists desiring to access the Trapper's Loop Highway have an indirect route to get to the Highway. This is a problem for individuals unfamiliar with the local roads and a challenge for tourism development.

In addition, the area is platted for 1,600 new homes. As the area builds out, convenient access will be a concern for the new home owners and a needed selling point to developers.

2. Congestion Relief: There is not significant congestion today traffic should be considered moderate. The NMTS determined that peak demand on the Mountain Green Interchange is about 800 vehicles per hour or about 50% of capacity (NMTS p. 2). Nevertheless, as the area builds out and recreational use of the Trapper's Loop Highway increases, traffic congestion could become a problem. This may also be true of individuals wishing to travel east who are presently forced to use local roads which are narrow and low speed. As traffic increases, these local roads could quickly be overwhelmed.

3. Safety: The current half interchange is not unsafe. It is inconvenient, however, in that it forces individuals wishing to travel east onto local roads that are not as safe or as fast as the freeway.

Crash data along Highway 167 which feeds the current interchange do not indicate any

special problems. What crashes have been recorded have been scattered along the entire length of the highway and not concentrated at any one spot. There have been a couple of crashes where north bound vehicles were turning west (left) to enter westbound traffic to the onramp. Nevertheless, this does not constitute a statistically significant problem and crashes are below expectations on the statewide scale.

4. Pavement Condition: Good.

5. Cost Effectiveness of Improvements: The construction cost of a new diamond type freeway interchange is currently approximately \$40 million. This cost could be increased by the close proximity of the railroad on the south side of the freeway which could make for a difficult bridge geometry. Justifying the expenditure of \$40 million for the convenience of approximately 5,000 residents will be challenging in light of the massive problems in other areas of the State.

The project is presently listed as illustrative on the UDOT Long Range Plan meaning the project is desirable but, funds are not available. As the area builds out and congestion becomes a reality, justification for the project will be easier.

Recommendations:

1. A realistic cost/benefit analysis done at county expense may help convince UDOT to fund the project in future years.

2. Preservation of the corridor by the County would ensure that the interchange remains a viable option for UDOT. Utah State law, UC Section 10-9a-401 requires municipalities to

“prepare and adopt a comprehensive, long range general plan for:

(a) present and future growth needs of the municipality; and

(b) growth and development of all or any part of the land within the municipality.

(2) The plan may provide for:

(a) health, general welfare, safety, energy conservation, *transportation*, prosperity, civic activities, aesthetics, and recreational, educational, and cultural opportunities;”

In addition, municipalities may, as part of their master plan, file an official map designating transportation corridors under UC 10-9a-407. Because this area is part of the unincorporated county, the Morgan County Council may, under UC 17-34-1 (2)(a) “provide municipal-type services to areas of the county outside the limits of cities and towns;” Therefore, the county is empowered to adopt a general plan and, as part of the plan, adopt an official map designating the corridor for the Trappers Loop Interchange and the access road.

Morgan County will participate in an RUDAT study during the fall and winter 2007/2008 which may more closely identify the corridor. Assuming that a corridor is identified, the

Regional Council recommends that area in question be surveyed and an official map adopted.

### **3. Widen State Road 66 to Allow for Bicyclists.**

State Road 66 leading south from Morgan City to East Canyon Reservoir is increasingly becoming a destination for recreational bicyclists in the summer. The scenery is world class and the ride pleasant in some areas and challenging in others. The problem for motorists is the road is narrow with no shoulders and has sight distance problems in many areas. As a result, bicyclists use the lane of travel creating a safety problem.

An additional problem in this area is slow moving vehicles such as pick-up trucks pulling trailers or motor homes. There is currently not a place for them to pull over and allow faster traffic to pass by.

#### Evaluation Criteria

1. Economic Value: Most of the recreational bicyclists are assumed to be from out of town. Hence, they become tourists who purchase gas and food in the area providing a source of income for local residents. Enhancing their experience, therefore, becomes desirable from an economic standpoint.

The same is true for out of town motorists using the Highway.

2. Congestion Relief: There is not a congestion problem on the Highway and traffic south of Morgan City is rated light to moderate due to the fact that some motorists may have to follow slower vehicles which cannot pull over and let them pass at convenient intervals.

3. Safety: Having large numbers of bicyclists riding in the lanes of travel on a state highway with sight/distance problems is clearly an issue. In addition, a road where motorists are commonly caught behind slower vehicles with few legitimate opportunities to pass creates a situation where some will begin to take chances. This then becomes an additional safety hazard.

There have been 35 crashes along the 14.35 miles of Highway 66 during 2003-2005. Again, this is below the expected crash rate for a road of this type and level of usage. The severity index is slightly below the national average. There is no indication in the data as to whether bicyclists have been involved in these crashes. Lastly, there is not a concentration of accidents at any one spot along the highway that would indicate a problem area.

4. Pavement Condition: Mostly good with a fair rating in some spots.

5. Cost Effectiveness of Improvements: Widening the road with adequate shoulders for bicyclists or passing lanes for slower vehicles would be very difficult and expensive for much of the length of the Highway. State Highway 66 has steep drop offs or equally steep cuts into the hillside in many areas. Nevertheless, there are lengthy portions of the road that could be widened within the existing right-of-way to accommodate passing lanes for slow vehicles and safety areas for bicyclists. Further study is warranted to determine those areas. The cost of widening those few portions of the Highway that could be improved should not be unreasonable. Possible funding would be available from the UDOT enhancements budget.

A further option for a bicycle lane as part of the current highway is a separate bicycle facility parallel to the road. An example of this may be viewed in the town of Liberty in the Ogden Valley. In the instance cited, it would be difficult and expensive to raise the shoulder to the level of the current highway, so the county simply put the bicycle lane parallel to and lower than the highway. This is a distinct possibility for certain portions of Highway 66. Nevertheless, depending on the width of the current right of way, the cost of property acquisition could be high.

Recommendation:

1. A study to determine which areas could be cost effectively widened should be the next step.



#### **4. Widen Morgan Valley Drive to Allow for Bicyclists.**

Morgan Valley Drive west of State Road 66 generally parallels I-84 on the south side of the freeway and is a rural, low speed country road. It is used as a local arterial street by area residents in a lightly populated portion of the County. It is also a scenic, pleasant and relatively level road for recreational bicyclists. It suffers from the same problem as noted above for State Road 66, that being conflicts between motorists and bicyclists. Fortunately, there are not steep drop offs on the sides of the road so there are possibilities for road widening to accommodate bicyclists.

##### Evaluation Criteria

1. Economic Value: Making a tourist draw safe only enhances its attractiveness. Other than the out of town bicyclists, the road does not generally serve important employers or other large economic interests.
2. Congestion Relief: Congestion is generally not an issue on this road traffic would normally be considered as light. When bicyclists do encounter motorists, they can generally slip off to the side of the road to allow the motorists to pass.
3. Safety: Having large numbers of bicyclists riding in the lane of travel is generally a safety concern. However, sight distance issues and shoulder access do not rise to the level of State Road 66 as noted above.

The portion of Morgan Valley Drive from Young Street to Milton has had 21 crashes during the years 2003-2005. This is below the expected crash rate based on statewide comparisons. However, the severity is slightly above average.

4. Pavement Condition: Mostly good with a fair rating in some spots.
5. Cost Effectiveness of Improvements: The addition of shoulders could be expensive if there is a large amount of right of way to be purchased over a relatively lengthy portion of road. In view of the relatively minor level of physical conflicts, a study would be warranted to determine if there are areas of the road that could be conveniently widened without the purchase of large amounts of right of way.

##### Recommendation:

1. A study to determine which portions of the road have sufficient right-of-way for a shoulder widening project would be appropriate. The road is due for re-construction in 2011. Serious consideration should be given to areas needing center turn lanes and wide shoulders in any studies preceding that construction.

## **5. Fix the Sight Distance Problem on State Road 66 in the Area of Rouser Lane.**

As motorists on Rouser Lane access State Road 66, they enter the Highway at the bottom of a small hill. Southbound traffic comes over the hill at high speeds allowing little time for motorists to safely access the highway and for southbound traffic to avoid a slow vehicle entering the highway.

### Evaluation Criteria

1. Economic Value: Rouser Lane serves only residential and some small farm areas. State Highway 66 is used by tourists accessing East Canyon Reservoir.
2. Congestion Relief: Rouser Lane is a quiet country lane and is not generally congested. Traffic should be rated as light.
3. Safety: This is clearly a safety problem. A south bound motorist moving at the legal speed limit would have to make an emergency stop or maneuver to avoid a large, slow moving vehicle entering the Highway such as a pick up truck pulling a trailer. This would be especially true in inclement weather.

The list of recorded accidents does not, however, list any accidents at the intersection of Rouser Lane and Highway 66. What accidents have been listed on Highway 66 have been mostly in Morgan City where there are numerous access points.

4. Pavement Condition: Mostly good with a fair rating in some spots.
5. Cost Effectiveness of improvements: This is a sore point for safety. Relocation of the access point could be expensive depending on the need to purchase right-of-way. Nevertheless, it would eliminate a safety concern.

### Recommendation:

1. A study to determine the possibility of leveling the grade on State Road 66 or moving the access point for Rouser Lane would be the next step in addressing this problem.

## **6. An Additional Bridge Over the Weber River on Young Street is Desirable**

Presently, there are two bridges over the Weber River through Morgan City, State Street (State Road 66) and 125 North and one access to I-84. The bridge on 125 North has been recently re-built. The main bridge on Highway 66 will be re-built beginning January 7, 2008. Access over the River is limited for residents in the eastern portion of the City. An additional bridge would create a third exit from the city to the freeway for safety purposes. There is also a developing congestion problem when the three area schools let out in the afternoon that could be addressed by the proposed bridge.

### Evaluation Criteria

1. **Economic Value:** This bridge would allow greater access to the City's commercial district. It would not address the problem with the railroad underpasses which is much more important in terms of economic development. It would allow for greater development, mostly residential, on the eastern edge of the City.
2. **Congestion Relief:** By urban standards, congestion is minimal. Nevertheless, some relief of traffic congestion would be welcome during the brief period after the three area schools close for the day.
3. **Safety:** A third exit to I-84 for the City residents would clearly be a safety benefit.
4. **Pavement Condition:** Not Applicable.
5. **Cost Effectiveness of Improvements:** Building a new bridge along with the needed approaches would be expensive, at least in the neighborhood of \$1 million (the approximate cost of the bridge replacement on 125 North) exclusive of right-of-way acquisition costs. Addressing some of the other more pressing needs, especially the railroad bridges would appear to be more cost effective.

### **Recommendation:**

1. Place the bridge on the City master plan and wait for further development on the eastern portion of the City. In the meantime, pursue mitigation of the issues surrounding the railroad bridges.

## **7. The two railroad underpasses into Morgan City need upgrading.**

There are two underpasses traversing the mainline of the Union Pacific Railroad through Morgan City on State Street and 125 North. Both underpasses are very narrow with steep approaches. This is a difficult situation for economic development and safety.

### Evaluation Criteria

1. Economic Development: Morgan City representatives have been told repeatedly by prospective businesses that the entrance to the City through the underpasses is a problem. The underpasses are sufficiently constrained to represent not only a negative for economic development, but also a safety hazard for large trucks. Until at least the underpass for State Street is improved, economic development will continue to be hampered within the City.

2. Congestion Relief: The underpasses have the potential to become chokepoints and therefore a problem for traffic congestion. Presently, however, traffic is free flowing at light to moderate levels.

3. Safety: Two large trucks coming from opposite directions have little room to spare as they pass under the railroad bridge. In addition, the approaches on both sides are steep and sight distance is limited. Nevertheless, there have been no recorded accidents at the underpass on Highway 66 during the years 2003-2005 according to available UDOT data.

It should be noted that the bridge over the Weber River on SR-66 approximately ½ mile south of the railroad underpass is scheduled to be replaced by UDOT beginning in early 2008.

4. Pavement Condition: Generally good.

5. Cost Effectiveness of Improvements: Depending on the type of improvement involved, the cost effectiveness ratio could be very favorable. This is because the narrow railroad underpass is presently seen as a major impediment to economic development. A wholesale removal of the underpass could be very expensive, however. A lowering of the slope for the approaches, especially on the south side of the underpass would be much less costly. This would not address the narrowness of the underpass, however.

### Recommendation:

1. Pursue a study of options and costs for improvements to the railroad underpass on State Road 66. Addressing the problems with the underpass on eastern portion of Commercial Street will come, in time, but State Road 66 is the main entrance into the City and should be considered first.

## **8. The Old Highway, also known as 700 East, needs improvement.**

The Old Highway, formally State Road 73, has been ceded to Morgan County and is now known as 700 East. It is becoming busier as new development is taking place near its intersection with Highway 66.

### Evaluation Criteria

1. **Economic Development:** The addition of wider shoulders and a center turn lane would make the area more desirable to residential developers. There is, however, little prospect of major commercial development as a result of widening the highway.
2. **Congestion Relief:** There is presently no to very little congestion on the road and traffic should be considered as light.
3. **Safety:** The addition of a center turn lane and wider shoulders in a residential area would clearly be a plus for safety.

Many portions of the road are also fronted by residences, particularly in Morgan City. Pedestrians do have sidewalks available for a small portion of the highway in Morgan City on the south side of the road. There are large areas of the road with residential development that do not have sidewalks. This is clearly a safety concern, especially in the winter when plowed snow makes it difficult to walk anywhere but the road.

There have been 16 automobile accidents during the recorded years of 2003-2005. This is less than half of the expected crash rate for a road of this type. Nevertheless, the severity index is slightly higher than average.

4. **Pavement Condition:** Generally good with some spots being rated as fair.
5. **Cost Effectiveness of Improvements:** Presently there are not a large number of accidents on this road. Rather, such problems tend to concentrate around busy intersections. Nevertheless, the addition of a center turn lane would add convenience for motorists wishing to pass a vehicle waiting to make a left turn. In addition, it would afford that much more of a margin of safety. The addition of shoulders would allow for safe emergency stops, especially in the winter when the dirt shoulders of the road are covered with piles of plowed snow. Lastly, the construction of sidewalks would take pedestrians off the road in the winter and enhance safety.

The widening of shoulders could probably be done within existing right-of-way. Any further widening for a center turn lane would require the acquisition of right-of-way. An easement for future sidewalks is currently held by the City and could be used as construction funding becomes available.

### **Recommendations:**

1. A traffic study of the safety issues on the road relative to width and whether or not it

should be widened would be appropriate.

2. The addition of sidewalks should be a primary consideration.

## **9. The Intersection of Young Street and State Street (State Road 66) needs to be evaluated for a Traffic Signal.**

The intersection of Young Street and State Street in Morgan City was evaluated some years ago for a traffic signal. It was determined at that time that a traffic signal was not warranted. Since that time, traffic has increased with the three schools in the area to the point that the question of the need for a traffic control measure has re-emerged. Vehicles counted on Highway 66 in 2005 were 8,045 per day at Young Street.

### Evaluation Criteria

1. Economic Development: The addition of a traffic signal would make little difference in the short run as to any economic development possibilities. In future years, this may be a consideration to the location of businesses.
2. Congestion Relief: There is little congestion in comparison with what is experienced on a daily basis in the urban areas. Nevertheless, the delay for motorists trying to cross Highway 66 at Young Street after the schools close in the afternoon is becoming an issue. Traffic after school lets out for the afternoon and later at rush hour should be considered moderate.
3. Safety: This is probably the prime consideration for the placement of a traffic signal. Accident rates and travel demand should be evaluated prior to any recommendation. Accident data for the years 2003-2005 show that there have been several accidents in the immediate area, but only one at the intersection.
4. Pavement Condition: Generally good.
5. Cost Effectiveness: A traffic signal would clearly reduce the potential for serious accidents and their associated costs.

### Recommendation:

1. UDOT is in the process of conducting a traffic count at the intersection. A careful review of the results and a fresh traffic study to determine the need for a traffic signal should then be conducted. Based on UDOT traffic warrants (standards), a traffic signal may then be considered.

## **10. Island Road in Morgan City is a very long street with only one exit.**

Island Road is a long residential street with only one exit which creates a problem if the entrance is blocked for some reason.

### Evaluation Criteria:

1. Economic Development: The area will probably continue to be residential in nature so economic development is not a consideration except for developers.
2. Congestion Relief: The road is rural in nature and congestion is not a problem. Traffic should be considered as light.
3. Safety: Emergency access and/or egress could be problem if the road were blocked for some reason. For safety purposes, there should be a second exit. No UDOT crash data is available for this road.
4. Pavement Condition: Generally good to fair in some spots.
5. Cost Effectiveness of Improvements: For safety purposes, a small, inexpensive cross street would be very cost effective, especially if built by developers. Nevertheless, it will still serve comparatively few residents.

### Recommendation:

1. The area is platted for a cross street as more development occurs. Incentives should be given to developers to complete the cross street at the earliest opportunity.



## **11. A bridge over the Weber River in the area of Como Springs will be needed as the area develops.**

As Morgan City expands eastward, the area near Como Springs will fill in. At that time, it would be desirable for another bridge over the Weber River.

### Evaluation Criteria:

1. Economic Development: As the area near Como Springs develops, it will probably continue to be residential in nature. Therefore, its economic development potential is limited.
2. Congestion Relief: Since the area is undeveloped, any suggestion as to possible congestion relief would be speculative. It is unlikely that motorists would travel this far east to avoid what little congestion does exist over the bridges in the downtown area.
3. Safety: Another bridge over the Weber River for safety purposes and/or emergency egress is clearly desirable. This is especially true since this the County Fairgrounds are located in this area. The additional bridge coming off of Young Street mentioned in item six would probably not serve this need in an acceptable fashion inasmuch as an additional cross street would have to be built to access Young Street from 100 South; 100 South is a quiet residential street and could not readily handle a large increase in traffic; and the road around the point of the mountain is very narrow and only one way for about 50 yards.

No UDOT crash data is available for this area.

4. Pavement Condition: Not Applicable
5. Cost Effectiveness: From a safety standpoint, this would clearly be money well spent for the reasons stated here and in item six.

### Recommendation:

1. As the area builds out, such a bridge will become a necessity. At that time, it would be advisable to seek financial participation from the prospective developers who stand to benefit from the construction of the bridge.

## **12. The eastern Morgan City Interchange on I-84**

The east bound off ramp and west bound on ramp of the eastern most interchange for I-84 into Morgan City has been closed for some time now. Morgan City has requested that their re-opening be considered.

### Evaluation Criteria

1. **Economic Development:** An additional interchange for a city is almost always desirable. In this case, it would access the eastern portion of the City that is presently far from the current primary freeway interchange and give an assist to businesses at the eastern edge of Commercial Street. Nevertheless, it would be of limited value until the Weber River is bridged at this point.
2. **Congestion Relief:** The current interchange is not congested and the full re-opening of the eastern interchange would afford little relief.
3. **Safety:** The ramps were closed for safety purposes previously. The reasons for that closure have not changed. In viewing the ramps from a westbound drive on I-84, it was apparent that the two interchanges are very close and a re-opening of the ramps in question would create a significant weaving problem.
4. **Cost Effectiveness:** The re-opening could be effected at little monetary cost. Nevertheless, the potential for and the severity of accidents would be high calling into question the cost effectiveness of the proposal.
5. **Pavement Condition:** Fair since the pavement in question has not been maintained. Nevertheless, a simple overlay at little cost could quickly bring the lanes up to standard.

### Recommendations:

1. The Wasatch Front Regional Council recommends against the proposed action due to the close proximity of the western interchange into Morgan City and the significant and substantial weaving and safety problems a re-opening would create.

### **13. 600 West needs to be completed to Island Road.**

Another bridge over the Weber River at 600 West would complete a grid type system for the western portion of Morgan City. Presently, this area is not part of the incorporated City. Nevertheless, it is part of the City's declaration for growth and it is anticipated that the City will annex the area at some future date.

#### Evaluation Criteria

1. Economic Development: The area is presently undeveloped. As it is built out, it will probably remain residential. The primary beneficiaries of a bridge over the Weber River and a connection to Island Road from an economic standpoint would likely be the developers. Therefore, it is reasonable that they should participate financially in the road and bridge.
2. Congestion Relief: There is little or no congestion today and there would have to be substantial additional growth before that would occur. Traffic levels on the road are light.
3. Safety: From a safety standpoint, an additional access across the Weber River would be desirable, especially for emergency access and egress.
4. Cost Effectiveness: This would be most cost effective if a developer were to build the road and bridge.
5. Pavement Condition: Not Applicable

#### Recommendation:

1. Wait until a developer wants to build in the area and allow him to contribute financially to the project.

#### **14. Widen frontage road on the south side of I-84 between to two freeway exits in Morgan City and make it bi-directional.**

A narrow frontage road exists on the south side of I-84 in Morgan City between the two freeway interchanges. Presently, the road is posted for one-way traffic flowing eastbound. When the road was built along with the freeway in 1963, it was bi-directional. It was made into a one way road in the 1970's. Morgan City has expressed an interest in widening the road and making it a two way road again.

1. Economic Development: The road would allow better access to the commercial areas of the City. There are not any commercial developments along the road and it is unlikely that there would be in the near future.
2. Congestion Relief: There is no congestion along Commercial Street that would be served by making the frontage road bi-directional. Traffic along the frontage road itself is minimal.
3. Safety: West bound traffic on the road would terminate on Highway 66 facing the traffic coming off the exit from I-84. This would make for a dangerous situation in which one confused motorist going straight instead of turning could cause a major accident. UDOT engineers consulted on this matter also expressed concern for the safety implications of the proposal. Nevertheless, they were willing to consider the matter after further study.
4. Cost Effectiveness: In order to meet current standards, the road would need to be widened. The right-of-way is already in State ownership so there would be little or no cost for property acquisition. Nevertheless, there is little or no congestion that needs relief on the parallel streets of Commercial Street and the Old Highway and there are no businesses that would directly benefit from making the road bi-directional.
5. Pavement Condition: Good but narrow.

#### **Recommendations:**

1. Making the frontage road a two way street would create a traffic hazard for west bound traffic on the road and east bound vehicles exiting the freeway.
2. The cost of widening the frontage road could still run into the hundreds of thousands of dollars for a small benefit. There are other, more pressing needs in the City and County.

## 15. Shuttle Service for Seniors and Others

There is presently a weekly shuttle service from Morgan City to Ogden and other points in the urbanized area that is available for seniors and others who may not wish to drive. The service operates if five or more individuals want to go. Also, the shuttle will pick up seniors and bring them to the luncheon at the senior center on weekdays. Lastly, the shuttle will pick up individuals who wish to go the local grocery store or other shopping needs up to three times per week. Generally, this service is available only to senior citizens.

Anecdotal data from the Senior Center suggests that approximately 300 seniors frequent the Center. Of those, about half do not drive or drive on a very limited basis.

Bus service by UTA or some other public agency is a remote possibility given the rural nature of the county. A ¼ cent sales tax generating approximately \$270,000 would barely pay for one bus route at current cost levels.

### Evaluation Criteria:

1. **Economic Development:** Nationally, approximately five percent of the adult population does not drive for one reason or another. Many of these are seniors who, in Morgan County, have some degree of mobility thanks to the Morgan County Senior Center Program. There may be other individuals, however, who still wish to be active and/or need to work. Allowing them daily access to employment opportunities would clearly be desirable, especially now that the Wasatch Front has less than 3% unemployment and employers are having a difficult time finding workers. Before the implementation of any such service, however, a careful study would be needed.
2. **Congestion Relief:** The creation of a daily shuttle service would have little impact on any congestion issues in Morgan County.
3. **Safety:** For individuals whose driving skills are questionable, the provision of a public transit service beyond that currently available would be in their interest and the public's as well.
4. **Cost Effectiveness:** The implementation of a transit service beyond what is currently available through the Senior Center would be very expensive and would be used by a small percentage of the population. In Salt Lake County, less than 3% of all vehicular trips are made on public transit. In a rural area, the economics would be difficult to justify. Nevertheless, such a service would be very valuable for those who do not drive and have no other alternative.
5. **Pavement Condition:** Not Applicable

### Recommendations:

1. How much additional transit service beyond what is being currently provided is in

question. This issue would need to be studied prior to the implementation of any new service. Such a study should include transit needs of the entire population.

2. Should additional transit service be deemed necessary, a possible sales tax increase could be tapped, in part, to assist in the operational costs.

## CHAPTER 5

### FINANCIAL ASSUMPTIONS

Transportation expenditures on highways within Morgan County come from three sources. They are: 1. The Utah Department of Transportation budget for state and federal highways within Morgan County which includes federal monies for the preservation of I-84; 2. The Morgan County budget for highways which is mostly made up of funds coming from the Utah State B & C road fund ('B' funds are for counties and 'C' funds are for cities) derived from state gasoline tax, and; 3. Morgan City funds which are primarily C funds as well. However, the City does program some local funds for highway maintenance. The class B & C revenue figures may be found on the UDOT website under "Doing business with UDOT/local governments" at <http://www.udot.utah.gov/main/f?p=100:pg:3040316367955586749:::V,T:134>.

The breakdown of expenditures is as noted below:

Fiscal Year	#UDOT Maintenance & Reconstruction	*Morgan County	Morgan City (Local fund and B & C Total)	Morgan City B & C Portion
2007	\$ 4,417,672	\$330,658.98	\$409,000	\$174,287
2006	\$ 1,780,487	\$300,213.80	\$448,661	\$247,419
2005	\$ 7,669,790	\$256,909.59	\$189,776	\$ 52,638
2004	\$16,912,704	\$339,296.20	\$285,840	\$180,000
2003	\$ 1,725,680	\$304,852.57	\$266,598	\$170,000

\* The Morgan County highway budget consists entirely of B & C funds dedicated mostly to maintenance of existing roads and bridges.

# Maintenance and Reconstruction cost figures are from the UDOT Region I office.

Historically, Morgan City has committed approximately \$190,000 per year to highway maintenance. The larger amounts for 2006 and 2007 are anomalies because the City saved for a few years to participate in the bridge reconstruction of the city owned bridge over the Weber River. In most years, city revenues for highway maintenance consist primarily of Class C funds and are dedicated almost entirely to the maintenance of existing facilities.

Recent UDOT funds dedicated to Morgan County have included the construction of the Trappers Loop Highway (SR-167), major maintenance on I-84 and participation in the reconstruction of the city owned bridge over the Weber River. Beyond these projects,

UDOT has mostly spent its funding within Morgan County on maintenance of the existing system.

Given the costs noted above for the suggested projects, current revenue levels are insufficient. Consideration may be given the possibility of a  $\frac{1}{4}$  cent sales tax ballot measure that could be committed to transportation improvement. Such an increase would yield approximately \$270,000 County-wide based on 2006 receipts for the current County levied  $\frac{1}{4}$  cent.

Utah State Law authorizes counties to levy sales taxes, subject to voter approval, for transportation up to  $\frac{3}{4}$  of a cent. Salt Lake County is the only jurisdiction at that level. Many other urban counties are at the  $\frac{1}{2}$  cent level. Davis and Weber counties have ballot questions for this November's election as to whether they should go to  $\frac{3}{4}$  of a cent for transportation.

The first  $\frac{1}{4}$  cent may be levied, subject to voter approval, by cities for public transit or highways (Utah Code 59-12-1001). The second quarter cent may be levied in full or in part and may be divided up by the County Council between highways and transit, all subject to voter approval (Utah Code 59-12-1503). The third  $\frac{1}{4}$  cent may be levied for highways or transit at the discretion of the county council of governments after voter approval of the tax (Utah Code 59-12-1702 through 1705).



## CHAPTER 6

### RECOMMENDATIONS

Beyond the recommendations made for each individual project listed in Chapter 5, this Chapter will list some broader observations as to which projects are realistically 'doable' and which are not yet ready for further evaluation.

All projects previously considered have merit. Nevertheless, some needs are more compelling than others. Generally, safety is the primary issue when transportation needs are considered. Nevertheless, financial reality must also be part of any decision to pursue a project.

Presently, there are no pressing congestion problems in Morgan County. Therefore, relative to available funding, the following projects are recommended for immediate consideration based primarily on safety issues.

1. Even though there has been only one crash at Young Street and Highway 66 in the past three years, this intersection is becoming a challenge for those needing to cross the Highway. If a traffic signal were installed, it would provide relief for motorists trying to cross Highway 66 during the school release and rush hour times. It is possible that the signal could operate only during the needed times in question and be flashing yellow on Highway 66 and flashing red on Young Street at all other times.

The proposed traffic signal would also draw motorists from nearby streets who need to cross Highway 66 thereby reducing the danger of crossing the Highway for blocks in either direction.

This would be a relatively small project and within the realm of financial reality. This must be subject to the traffic count presently being conducted by UDOT.

2. The access point for Rouser Lane is a safety concern. Moving the entry point of the Lane to some nearby, safer location is financially 'doable'. Morgan County should begin working with UDOT to study the matter and develop a solution.
3. Lowering the grade of Highway 66 immediately south of the railroad underpass would diminish the abruptness of the elevation change and make entry into the City more pleasant. Nevertheless, the safety issues surrounding this project are not as compelling as the prior projects which should be considered first.
4. The railroad underpass at the Croyden Exit is a problem. Unfortunately, it is an expensive problem and, at current revenue levels, will not be remediated in the near future.

5. The proposed interchange for the Trappers Loop Highway would be difficult to justify under current circumstances given the \$40 million price tag and the number of pressing issues competing with it around the State. Nevertheless, the County could file an official map under Utah Code Section 10-9a-407 indicating its official planning and zoning intention. The general location has already been identified.

Also, the County should work toward preserving the corridor for the access to the interchange through property dedication or purchase. This would help greatly in attracting State funds in future years and make certain that the option to build the interchange is never precluded.

6. There are lengthy portions of Highway 66 where the shoulders could easily be widened within the existing right-of-way to allow for bicyclists. Funding for this program may be had from the UDOT Enhancements Budget. Projects up to \$500,000 can be funded with a 20% local match. A second level of funding for the same project up to an additional \$500,000 is available with a 50% local match.
7. A ¼ cent sales tax increase county wide would only bring in \$270,000 based on 2006 receipts. Nevertheless, the option is available to the County to put the matter before the voters under three separate sections of the Utah State Code. Should the County decide to do so, it is suggested that a list of proposed projects be presented to the voters so that they are aware of which projects could be funded. This would be a way of completing some of the smaller projects noted above.

## **APPENDIX A**

### **SUMMARIES OF INTERVIEWS WITH CITY AND COUNTY REPRESENTATIVES**

# **MORGAN COUNTY COUNCIL TRANSPORTATION NEEDS SCOPING SESSION SEPTEMBER, 19, 2006**

## **SAFETY ISSUES**

- Off of I-84 Exit 111, on the northern side of the freeway, there is a narrow railroad bridge and a bad curve which large trucks have difficulty in negotiating. The railroad bridge has been there since 1933 and the height is insufficient for large vehicles. A traffic study of the local area is needed.
- Presently, the eastern freeway exit to Morgan City has the eastbound exit and westbound entrance closed. They need to be re-opened.
- Young Street currently dead ends at the Weber River. There needs to be a bridge constructed to allow a second egress to the eastern freeway interchange in case an emergency closes the State Street access to I-84.
- Old Highway Road should end in a 'T' rather than a 'Y' at its eastern terminus.
- The present railroad underpass into Morgan City is narrow and low causing problems for freight. It also is a drainage problem during heavy rains.
- The 'S' curves east of Morgan City on I-84 are dangerous and merit some study.

## **CONGESTION ISSUES**

- There is little congestion presently in Morgan County with the exception of State Street which is becoming very difficult to cross at peak rush hour. A stop light at Young Street to allow cross traffic is desirable. This is a safety problem as well.

## **GROWTH ISSUES**

- The Mountain Green area had 388 homes in 2001 and will have 1600 in the next ten years. These additional homes are already permitted under current approved zoning.
- The Mountain Green Exit is a half diamond and needs to be upgraded to a full diamond interchange.
- Presently, there are 28 apartments in the Mountain Green area with many more planned.
- The planned developments noted above will create a need for another interchange for the Trappers Loop Road and central Mountain Green area and is the first priority for additional capacity as expressed by the County Council. This would help alleviate a developing congestion problem on the old state highway.
- A bridge to Round Valley is needed.
- A road from Morgan City to Stoddard Lane would help with growth needs.

**Morgan City Transportation Issues**  
**December 20, 2006**  
**Interview with Mayor Dean Pace, Steve Garside,**  
**City Planner and Greg Seegmiller, City Engineer**

Regional Council staff member, Sam Klemm, met with the above noted representatives from Morgan City to discuss their perceived transportation needs for the next 25 years. Their concerns are listed below:

1. A river crossing on Young Street would help eliminate a congestion problem that is developing when all three schools close for the afternoon. It would also create a second exit from the city to the freeway for safety purposes. There is a hotel under consideration for the area. If the hotel were built, the bridge could then be constructed using CDBG funds.
2. The two railroad underpasses into the City are woefully inadequate. A traffic study, at a minimum, is warranted. The first underpass to be rebuilt should be the main road into the city.
3. 700 East, also known as the Old Highway, is in concept development on the STIP for widening. Every effort needs to be made to make certain this project progresses to the funded stage.
4. 300 West, also known as Island Road, is a very long street dead end street. There is a cross street that is master planned that would help solve this problem.
5. A park and ride in the vicinity of the main freeway entrance is desirable.
6. Congestion at the intersection of Young Street and State Street is beginning to be a problem at rush hour. UDOT conducted a traffic study there six years ago and determined that a traffic signal was not warranted at that time. Traffic has increased to the point that the issue is due for re-evaluation.
7. 600 West needs to be completed to Island Road. It will require a river crossing and extension past the sewer lagoons. This road and bridge will probably be built by developers. This would all be subject to a future annexation inasmuch as this area is currently in unincorporated Morgan County.
8. The City will probably annex the land in the Como Springs area in the future. A bridge over the river from Round Valley Road to the fairgrounds area would be needed as the area develops.
9. The Davis Applied Technology Center will probably build a satellite facility in the Industrial Road area in the immediate future. This will further emphasize the need for an improved railroad underpass on State Street into the City.
10. Proposed bicycle paths along Young Street, State Street and the River are desirable.
11. The east bound exit off I-84 needs to be re-opened. This will be especially important if the River is bridged at that point as noted in item 1.
12. A transit shuttle to the Ogden Intermodal Center is desirable for commuters, seniors and others who would prefer not to drive.

**Morgan County Planner, Sherrie Christensen and  
Morgan County Engineer, Austin Rowser Commenting on  
Morgan County Highway Concerns**

**November 14, 2006**

Wasatch Front Regional Council Representatives Scott Festin and Sam Klemm met with Sherrie Christensen, County Planner and Austin Rowser, County Engineer, regarding the staff level transportation concerns for Morgan County. There was a lengthy discussion of various roads and growth concerns. Their issues in order of priority are as follows:

1. The road to the cement plant off the I-84 Croydon Exit is a major safety problem. There is a very tight turning radius for the approximately 200 trucks per day accessing and leaving the plant. The morning peak period is probably the worst time between 9:00 a.m. and 10:00 a.m. There is also an environmental threat in the form of contamination of the adjacent Weber River if an accident dumped a fully loaded cement truck into the River.

After the meeting, Scott and Sam visited the area and noted the difficult geometry for any potential fix. A traffic study would be useful at this point.

2. The interchange at Mountain Green is inadequate. It is only a half diamond interchange and does not meet the needs of a growing area. A better option in lieu of upgrading the current interchange would be to build a new interchange at Trapper's Loop. The current landowner is willing to donate the ground.

The new interchange would allow the current Mountain Green Interchange to serve the main flow to and from Ogden while meeting the needs of the 1600 homes that are expected to be built in the immediate area in the next ten years.

3. No widening of arterials (additional through lanes) is needed yet. However, once the homes are added in the mid-valley area, the widening of the old highway would be desirable. Therefore, such widening should be contemplated in any long range plan.
4. There is considerable bicycle traffic along Morgan Valley Drive on weekends. This is a safety hazard because there is no bike lane or shoulder for that matter.
5. On Highway 66 to East Canyon Reservoir there is little or no shoulder for vehicles pulling trailers or boats to pull off.
6. On Highway 66 in the area of Rouser Lane, there is a sight distance problem.

## **Morgan County Senior Center Environmental Justice Interview**

Regional Council staff member, Sam Klemm, conducted an interview with the Board Members of the Morgan County Senior Center on July 19, 2007, as to their transportation needs. Those present included Board Chairman Lois Woody, Board Members Della Eddington and Louise Clements, Morgan City Mayor Dean Pace and City Councilman Lynn Mickelson.

Their primary transportation concerns were:

- The Senior Center van only goes to Ogden once per month if five people want to go.
- There are three vans, none of which are wheel chair equipped.
- The vans are available to pick up people and take them to the grocery store and other locations in Morgan City only once per week. Otherwise they must rely on family and friends if they do not drive.
- There are about 300 seniors, half of whom frequent the Senior Center.
- Assisted living is not available which would generally provide transportation to residents. A 45 unit assisted living facility is scheduled to be built beginning this fall.
- State Highway 66 is very difficult to cross at rush hour. A traffic study was conducted several years ago and recommended no traffic light at that time. It is time for another study.

## **SUMMARY OF OBSERVATIONS MADE DURING A ROAD TRIP ON MARCH 8, 2007 TO VIEW CONDITIONS ON SR-66, SR-65 AND I-84 IN MORGAN COUNTY**

On March 8, 2007, Regional Council staff members Scott Festin, Ben Wuthrich and Sam Klemm invited Darin Fristrup from UDOT and Austin Rowser, Morgan County Engineer to survey highway and traffic needs along SR-66, SR-65 and I-84. The observations noted are as follows:

1. There are several locations with sight/distance issues on SR-66 in the climb up to East Canyon Reservoir. Addressing most of these problems would involve very expensive cut and fill solutions. One or two of the worst instances could be addressed individually.
2. The sight/distance problem is particularly severe at the north intersection of the 'Loop Road' with SR-66.
3. The Sheep Road intersection with SR-66 has a similar sight/distance problem, though less severe.
4. The pavement conditions for SR-65 and SR-66 were, with a few exceptions generally good to excellent.
5. The railroad bridge over SR-66 at the northern entrance to Morgan City presents a particular challenge. Any possible solutions would be very expensive. Nevertheless, a lowering and lengthening of the grade on the south side of the underpass would help with regard to the abruptness of the approach.
6. The tight turns and steep grades near East Canyon Reservoir on SR-66 could not be diminished without large, expensive and environmentally challenging projects.
7. SR-66 is beginning to see large numbers of bicyclists on summer weekends. This presents a problem because the shoulders of the highway are narrow to non-existent. Unfortunately, in most areas of the highway, there is limited to very limited opportunity to widen the shoulders to accommodate the bicyclists. Nevertheless, where there are such opportunities, they should be taken advantage of.
8. The railroad underpass at Croyden is a particular problem. While we were there, a large, belly dump double trailer truck made the southbound turn under the railroad bridge. The truck was able to make the turn using both lanes of travel. A northbound truck pulling a single trailer had to wait for the first truck to clear the bridge and also used both lanes to make the turn. We had to wait on the side of the road for the second truck to drive by us before proceeding.

Also, of note, the pavement at the underpass has mostly failed with large potholes and cracks. This is slated for re-paving this summer. The railroad bridge is also in poor condition with numerous cracks in the bridge abutments on either side of the bridge. The rail road has no plans for any bridge reconstruction at this time.

9. The easternmost and now closed interchange on I-84 for Morgan City is clearly too close (1/4 mile) to the existing interchange to consider its re-opening.
10. The bridge abutments on I-84 under the Morgan City Interchange are uncovered and should be faced with concrete for preservation purposes. This is currently planned for this coming summer.



## **APPENDIX B**

### **DEFINITIONS OF LEVELS OF SERVICE**

## LEVELS OF SERVICE DEFINITIONS

**Freeways** - Level of Service (LOS) is a qualitative measure of traffic flow. For freeways, LOS represents the freedom with which a driver can maneuver within the traffic stream. This freedom to maneuver is a function of the traffic density.

Freeway LOS is divided into six levels designated by the letters “A” through “F”. A brief description of each freeway service level is given below. Pictures of freeway LOS and further discussion on this subject is found in the “Highway Capacity Manual” beginning on page 13-8.

LOS “A” – Free-flow operations at free flow speeds. Vehicles can maneuver within the traffic stream unimpeded. Traffic incidents have no noticeable impact to traffic operating at LOS “A”.

LOS “B” – Reasonable free-flow operation at free flow speeds. The ability to maneuver within the traffic stream is only slightly restricted and driver comfort is still high. Traffic incidents have no noticeable impact to traffic operating at LOS “B”.

LOS “C” – Traffic flows with speed at or near free flow speed. The ability to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance of the driver. Minor traffic incidents can still be absorbed but the impact to service will be substantial resulting in queues behind any significant blockage.

LOS “D” – Speeds drop noticeably as traffic density approaches unstable flow conditions. The ability to maneuver within the traffic stream is more noticeably restricted, and the driver experiences reduced physical and psychological levels of comfort. A minor incident at this level of service will create queuing as there is little space in the traffic stream to absorb any disruptions.

LOS “E” – Also known as capacity flow or forced flow. Operations at this level are very unstable and there are virtually no gaps in the traffic stream. Any disruption of the traffic stream, even entering traffic or lane changes, can create a disruption to traffic flow. Any incident will lead to substantial disruption to the traffic flow and extensive queuing. Maneuvering within the traffic stream is extremely limited and the physical and psychological comfort afforded the driver is poor.

LOS “F” – This level describes a breakdown in traffic flow, also known as a traffic jam.

**Arterials** – For urban streets, LOS describes the through-vehicle travel speed of a segment or for an entire street. Arterial LOS is an entirely different performance measure than freeway LOS even though both use the letters “A” through “F” to designate the different service levels. The average travel speed is computed from the running speed including the control delay (stop signs and traffic lights) at intersections. Thus the more intersections there are and the type of control used at the intersections will affect arterial LOS. Inappropriate signal timing or lack of signal coordination or progression can significantly degrade arterial LOS.



## **APPENDIX C**

### **NORTH MORGAN TRANSPORTATION STUDY**

**2004**

## **APPENDIX D**

### **ACCIDENT DATA ON STATE AND LOCAL HIGHWAYS**

## Crash Statistics for Morgan County, 2003-2005

### **I-84**

no of crashes:	323
3-year AADT:	34,616
length (mi):	21.23
functional class:	rural interstate
crash rate:	1.20
severity index:	1.35
expected rate:	0.87
expected severity:	1.83

### **SR-65**

no of crashes:	28
3-year AADT:	2130
length (mi):	13.34
functional class:	major collector
crash rate:	2.70
severity index:	2.07
expected rate:	2.32
expected severity:	1.81

### **SR-66**

no of crashes:	35
3-year AADT:	4581
length (mi):	14.35
functional class:	major collector
crash rate:	1.46
severity index:	1.74
expected rate:	2.32
expected severity:	1.81

### **SR-167**

no of crashes:	41
3-year AADT:	10,394
length (mi):	6.89
functional class:	minor arterial
crash rate:	1.57
severity index:	2.10
expected rate:	1.96
expected severity:	1.72

### **South Morgan Valley**

no of crashes:	6
3-year AADT:	
length (mi):	3.90
functional class:	minor collector
crash rate:	
severity index:	2.33
expected rate:	
expected severity:	1.76

### **Milton Morgan Valley Dr/Young Street**

no of crashes:	21
3-year AADT:	4774
length (mi):	8.87
functional class:	major collector
crash rate:	1.36
severity index:	1.90
expected rate:	2.32
expected severity:	1.81

### **Cottonwood Canyon Road**

no of crashes:	2
3-year AADT:	
length (mi):	1.42
functional class:	minor collector
crash rate:	
severity index:	2.00
expected rate:	
expected severity:	1.76

### **Stoddard Lane**

no of crashes:	1
3-year AADT:	
length (mi):	1.10
functional class:	minor collector
crash rate:	
severity index:	1.00
expected rate:	
expected severity:	1.76

### **Old Highway 30**

no of crashes:	16
3-year AADT:	3902
length (mi):	10.18
functional class:	major collector
crash rate:	1.10
severity index:	1.63
expected rate:	2.32
expected severity:	1.81

### **Lost Creek**

no of crashes:	3
3-year AADT:	1147
length (mi):	12.73
functional class:	major collector
crash rate:	0.56
severity index:	2.00
expected rate:	2.32
expected severity:	1.81

**Jeremy Ranch East Canyon Road**

no of crashes:	1
3-year AADT:	
length (mi):	3.75
functional class:	local
crash rate:	
severity index:	1.00
expected rate:	
expected severity:	1.67

## **APPENDIX E**

### **MAJOR UDOT PROJECTS IN MORGAN COUNTY**



Length	Project Concept	FA Funds	Matching Funds	Fund Source	Fd_name	Fund_yr
0.0	Bridge - Replacement # C-164	\$2,520,000	\$630,000	Bridge On System State	UDOT Projects	2010
6.0	RSI - Add Guardrail	\$372,920.00	\$27,080.00	Highway Safety Improvement	UDOT Projects	2007
0.0	REPLACE DETERIORATED CATTLEGUARD	\$235,450	\$14,550	Interstate Maintenance	UDOT Projects	2007
9.0	Concrete Pavement Joint Repair	\$1,920,113	\$118,656	Interstate Maintenance	UDOT Projects	2008
9.0	Concrete Pavement Joint Repair	\$1,920,113	\$118,656	Interstate Maintenance	UDOT Projects	2008
0.0	Bridge Deck Rehab	\$2,400,000	\$600,000	Bridge On System State	UDOT Projects	2011
11.0	Road - Pavement Rehabilitation	\$23,773,560.00	\$1,226,440.00	Interstate Maintenance	UDOT Projects	2004
1.2	Bridge - Rehabilitation #D-260	\$300,000.00	\$165,000.00	Bridge On System State	UDOT Projects	2004
0.0	Bridge Replacement	\$960,000	\$906,000	Bridge Off System State	Other Local Projects	2006
0.0	Bridge Replacement #029003C	\$672,000	\$168,000	Bridge Off System State	Other Local Projects	CD
0.0	Preliminary Engineering	\$1,990,550	\$144,546	STP_RURAL	Other Local Projects	CD