

# MPC 417

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**Project Title:**

Evaluation and Development of Livability and Sustainability Programs for Indian Reservations

**University:**

University of Wyoming

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**Research Needs:**

Very little resources exist that address the livability and sustainability of rural and Tribal communities. In order to improve transportation safety and other transportation issues in these communities, they need programs that meet their specific needs and culture and the ability to sustain these programs.

This study proposes to develop the framework for transportation strategies to give rural and Tribal communities the tools for increased livability. The University of Wyoming (UW) will work closely with the Wyoming Department of Transportation (WYDOT), and the Wyoming FHWA division office on this study. Because localities have different goals and focus on their concept of livability, the study will include a plan to provide case studies from the various communities. A team from the participating agencies listed above will meet and interact with these communities in the state to determine their priorities and identify certain transportation related investment ideas and funding strategies which would support the livability needs unique to each community.

The rural communities in this region have some unique challenges. Several are facing significant impacts related to energy development. Others have a completely different idea of livability and rely heavily on tourism or agriculture. Understanding the impacts and how to address the special needs of these rural communities is crucial to making livability work for each.

In recent years, oil/gas developments as well as wind energy development have resulted in significant increases in traffic volumes in rural areas. These increases have resulted in higher numbers of crashes and increased truck traffic. This truck traffic has caused considerable deterioration in the transportation infrastructure. UW has been conducting multiple studies to identify the impact of energy developments on the safety and integrity of the transportation infrastructure of local communities.

The findings of these studies must be shared with local and rural communities to be included in the considerations of the livability priorities. This will provide well-designed solutions consistent with the expectations of the rural residents. Such solutions will insure that these communities benefit from achieving a livability standard they expect and provide a transportation infrastructure that is adequate and sustainable. This in turn will help the energy industry in extracting minerals and getting them efficiently to markets thus enhancing economic competitiveness.

In communities where tourism has a great impact, studies to determine these impacts are necessary. Providing better intermodal transportation, increasing roadway capacity, traffic control and preservation of the natural and historic environment are some of the livability issues that may need to be addressed.

Many rural communities depend on agriculture. Unique needs are associated with these communities getting their livestock and produce to market.

Small towns struggle to attract business so their citizens are forced many times to travel long distances to quality shopping and other necessary services. Their town centers no longer have the life and character that at one time made them a great place to live.

The rural setting of reservations is uniquely different from typical rural America. The community is often spread apart with forest and rangeland between where people live, where they work and where they go for groceries or health care or other services.

This proposed research study will consider the challenges listed above to define what livability means for the rural and Tribal communities and identify the role transportation plays in improving livability. The study will draw upon the vast experiences from other states and communities that have implemented the livability/sustainability concepts in urban settings and any rural applications. The expectations and demographics of residents living in rural communities will be researched and considered so that realistic and applicable plans can be implemented in their respective communities. Strategies will be developed and shared with other rural communities in the region. The interaction among academicians, FHWA/DOT personnel, and rural communities in the region will insure a more comprehensive and effective implementation of the livability/sustainability concepts in rural areas.

The results of this study will be used by the WYT2/LTAP Center to provide technical assistance and transfer of technology throughout the Rocky Mountain Region for rural communities to utilize the tools developed to implement livability and sustainability transportation programs. These tools would include methodology and processes obtained from the case studies for communities to develop their own programs and policies. These tools will also include the

development of effective performance measures that will assist communities in evaluating the success of their programs and determine if alterations need to be made to better fit their needs.

### **Research Objectives:**

The objective of this research is to identify the livability needs of rural and Tribal communities, study programs that have been successfully implemented in rural and tribal communities and develop a more comprehensive program that these communities can utilize in implementing livability principals and sustainability strategies.

### **Research Methods:**

In recent years, there has been a major emphasis on investing resources in communities to improve livability. The national interagency Partnership for Sustainable Communities has defined six livability principles: (1) provide transportation choices; (2) promote equitable, affordable housing; (3) enhance economic competitiveness; (4) support existing communities; (5) coordinate policies and leverage investment; and (6) value communities and neighborhoods (US HUD, USDOT, US EPA, 2009). These principles can take many different forms for the diverse communities across this nation. Thus, livability is not easily defined and has different definitions depending on what context or audience is being addressed. The following are just a few cited by various US officials and other agencies.

*“Livability is about tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools and safe streets. This includes addressing safety and capacity issues on all roads through better planning and design...”* (Mendez, 2010)

*“Livable communities are mixed-use neighborhoods with highly connected streets promoting mobility for all users... Benefits include improved traffic flow, shorter trip lengths, safer streets for pedestrians and cyclists, lower greenhouse gas emissions, reduced dependence on fossil fuels, increased trip-chaining and independence for those who prefer not to or are unable to drive...”* (LaHood, 2009)

*“...provide and promote civic engagement and a sense of place through safe, sustainable choices for a variety of elements that include housing, transportation, education, cultural diversity and enrichment, and recreation.”* (WSDOT, 2010)

The wide variety of communities across the country will provide any number of definitions as livability relates to their particular needs and interests. Improved quality of life is the basic theme that may capture what is meant by livability. This includes many aspects of which transportation is an integral part. Accommodation of various modes of transportation, improved access, relieving congestion and preserving the natural environment are some of the elements of transportation projects that must be taken into consideration as part of a successful livability program.

When discussing livability as it applies to rural and Tribal communities, the definition becomes much broader. Many programs, policies and projects are geared to address the livability of an urban community with roadway connectivity, intermodal transportation and many other aspects of making an urban community operate in concert. Rural communities vary in size, range in

available services and face many different challenges unique to their respective communities that cannot apply to a “one-size-fits-all” program that might easily be available for an urban community. Tribal communities also have these unique challenges that rural communities do. In addition, with their nation sovereignty and individual cultures livability can take on even more meanings.

Partnership is critical to the success of a livability program for any community. Livability transportation projects need to be incorporated into the local community land use and development goals. Citizens, community groups, private businesses, federal, state and local government, and other related agencies must work together to develop a successful program. Every stakeholder has a critical role in defining livability and developing common goals and objectives. This requires coordination, collaboration and communication among the partners and throughout the process.

There are federal programs that provide funding for many of the improvements that are geared to achieve the goals of livability and sustainability. However, these require some way to quantify the results. How to measure livability can be challenging because it is very subjective and thus difficult to measure. The Transportation Investment Generating Economic Recovery grants program (TIGER I and II) has provided two phases of funding which required outcomes that included improved livability. The measurements used in TIGER I were mostly based on improved mobility. Tiger II specifically added evaluation based on the six livability principles and sustainability (Office of the Federal Register, 2010). More tools are needed to measure the effectiveness of livability programs.

Efforts to improve livability have been successful especially in urban settings but much work is needed to extend these efforts to rural communities. More than 20 percent of the population in the US lives in rural areas and the Rocky Mountain Region contains a significant number of rural and small communities. The concept of livability must be better defined for these rural settings for successful implementation. The state Departments of Transportation (DOTs) have found it challenging to come up with transportation strategies and investments which can help these local communities in creating a more livable and sustainable environment.

### **Expected Outcomes:**

Compilation of information will result in some type of matrix of definitions, approaches, applications, stakeholders, measurement of results and resources.

### **Relevance to Strategic Goals:**

The primary goal of this study is to conduct research on transportation infrastructure on Indian reservations to insure that their communities are more livable.

### **Educational Benefits:**

Graduate students will be involved in conducting all steps associated with this study.

### **Work Plan:**

The following tasks will be performed in this study:

1. Conduct literature review on livability and sustainability. Investigation into existing

programs and review of successful urban and rural applications.

2. Compile a listing of rural communities and set up meetings\interviews to identify their needs for livability and sustainability.
3. Identification of communities that have identified livability issues in their development plans and programs. Set up meetings and interviews to identify what is working for them and how they have approached livability issues.
4. Further develop current programs and development of new programs that would provide tools for rural and tribal communities to utilize in their planning efforts to improve their communities.
5. Develop matrix that identifies findings, needs and stakeholders, provides definitions, programs and resources.
6. Prepare final report of findings and present at professional meetings. (Two month)

**Project Cost:**

Total Project Costs: \$ 100,429

MPC Funds Requested: \$ 49,658

Matching Funds: \$50,771

Source of Matching Funds: WY LTAP

**TRB Keywords:**

Livable communities, Indian reservations, transportation safety.

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