

Regional Long Range Transportation Plan Guidance

What Makes A Good Plan?

Participants embarking on the development of a new transportation plan often will ask and try to answer the question: “what makes a good plan”. Is it:

- Being able to fill in all the boxes in a checklist provided by the agency paying for the plan?
- A well-written, detailed narrative?
- Nice maps and graphics?
- High quality analysis using tools such as Geographic Information Systems (GIS)?

Ultimately, these ingredients are important, but they do not make a plan good. In describing what makes a good plan, it is first worth emphasizing that planning is a process, not the plan document itself. A plan document is a product of planning; it simply reflects the steps in the planning process. The plan document is a very important product, but is not the way to judge success in planning. The success of any planning process can only be judged by its results: the tangible actions, benefits, and changes result from the plan.

Four key ingredients seem to be common in any successful plan. They are Simplicity, Focus, Realism, and Shared Vision. This is true whether the plan is for a business, a military operation, or a regional transportation system. Each of these points may be briefly summarized as follows:

Simplicity

- Someone not familiar with the plan should be able to pick it up and understand it
- Data have been transformed into useful information and even intelligence

Focus

- A good plan focuses on relatively few strategic issues, problems, threats, or opportunities
- Focus can be overdone; a good plan must not be perceived as “incomplete”—missing obviously key ideas or elements

Realism

- A good plan is one that can reasonably be expected to be implemented
- There is no “blue sky” or no “pipe dreams” in a good plan

Shared Vision

- The plan is bought into by key decision-makers and stakeholders
- There must be “champions” for the plan to get implemented; these are rarely the planners themselves. Planners are technicians, facilitators, and catalysts for good planning.

Why Some Plans Fail

Many plans never are successful and are later judged as failures. Such plans are often described as just “documents sitting on shelves”. Why plans fail is usually due to reasons that are the opposite of the characteristics of successful plans. Plans that fail are usually:

Lacking in Simplicity

- They can't be understood by laypeople.
- They contain too much data and not enough useful information or wisdom.

Lacking in Focus

- Failed plans lack specific items that are actionable.
- Failed plans often try to be “all things to all people”.

Unrealistic

- For instance, the proposed actions are far beyond the fiscal or technical capabilities of the participating jurisdictions.

Lacking stakeholder and decision-maker “buy in”

- There are no champions who will advance the plan to implementation.
- There is too much opposition to the plan

A plan could be judged to be well on its way to failure if:

- Participants start asking: “now that we have a plan document, what are we going to do with this plan?”
- The planning document sits on a shelf and does not get referred to often.
- No action happens shortly after (or even before) the plan is approved.
- No champions step up to the plate to help get the plan accomplished.

The Hierarchy of Planning Data

One important ingredient for plan success is the transformation of data into useful planning information, planning knowledge, or even planning wisdom. Plans that fail often provide reams and reams of raw data or nearly raw data. Readers of the plan quickly become confused, bored, and disengaged from the process when too much raw data is provided. While it is important to have planning and that plans be “data driven”, it is useful to no one to publish or present mountains of raw data in plans.

There is a hierarchy or pyramid of planning data. The hierarchy (from lowest level to highest level) is:

- **Data.** Data are basically raw material for planning. An example might be an inventory of all the bridges in a region of the state of Iowa.
- **Information.** Information is data that have been filtered and/or organized in some way so that they can be more easily understood. A table of the 50 bridges in a region that are in the worst condition is potentially useful planning information.

- **Knowledge.** Planning knowledge occurs when multiple information sources are integrated. For instance, an example of planning knowledge might be a GIS map that shows the 10 bridges in a region that are in poor condition and that also carry more than 1000 vehicles per day.
- **Wisdom or Intelligence.** The top level of the hierarchy of planning data is referred to as “wisdom” or “intelligence”. This level involves planning data that have been carefully evaluated in some way. For example, in terms of the bridge example, “wisdom” might be the three bridges in the region that are in such poor shape that they must be replaced in the next few years to avoid a significant economic impact.

In presenting data in plans, planners should always strive to move up the “data hierarchy” toward knowledge, wisdom, and intelligence. Moving up the pyramid is how planners can add considerable value during the planning process and how they can avoid two major sources of planning failure—lack of focus and lack of simplicity. Plans that contain page after page or table after table of raw data are much more likely to end in failure. There are many tools available for planners to help move up the hierarchy of data. These include everything from mapping and spatial analysis using geographic information systems (GIS) to relatively simple development of charts and graphs using spreadsheets.

Regional Transportation Planning Process Guidelines

The following Long Range Regional Transportation Planning Guidelines for Iowa are intended to provide an outline for a successful planning process. Both the planning process and the plan document must be developed to fit the needs of the region for which the plan is being developed. These guidelines are not intended to provide a “cookie cutter” approach or a checklist to be followed by all regions. Rather, they are guidelines that can be used to develop an appropriate planning process and planning document. Each region will have to adapt the guidelines to develop a process and a planning product that meets the needs of the region and attains results.

Although the listing of recommended steps in the regional transportation planning process provided below contains many important steps, it may be that a region will have to add steps or emphasize steps to develop a successful plan.

1. **Plan The Planning Process.** It is critical for planning agencies to first decide what will be done, when it will be done, and who will do it. This step should be completed by the team of planners who will be responsible for preparing the plan. The planning process will depend on both external factors and internal factors. Examples of external factors include provisions of state or Federal law that must be complied with for the plan to be accepted. Examples of internal factors include a planning agency’s mission statement or its technical capabilities. Planning agencies must be careful to meet externally-imposed conditions but not to outstrip their own technical capabilities when developing plans.
2. **Get The Right People To The Table.** Plans that succeed get the right people to the table and get them involved effectively through a mechanism such as a planning steering committee. Who the right people are depends on the region and its issues, but should

include policy board members, technical advisory committee members, other elected and appointed officials, stakeholders, transportation providers, transportation users, and potential champions for getting the plan implemented. Some willingness to “get outside the box” when choosing a set of people to participate in the plan is important. For instance, if it anticipated that transportation enhancements will be a major focus of the plan, then parks and recreation groups or walking/cycling representatives should be sought out. If improving economic development highway corridors is a major issue in the region, then professional economic developers should be involved.

3. ***Develop The Overall Direction For The Plan.*** It is important for any plan to have a set of goals and objectives. These are the goals for the planning process as well as the goals for how the organization developing the plan will use it when it is completed. The planning goals and objectives should be determined by the planning steering committee with facilitation help from the professional planners.
4. ***Identify Key Trends.*** Use available data sources and develop information and knowledge needed to identify a handful of key trends in the region that will most impact transportation over the next several decades. These trends could involve demographics, social conditions, economic conditions, energy, environmental conditions, or physical conditions of infrastructure.
5. ***Conduct a SWOT Analysis.*** Identify a limited number of key regional transportation strengths, weaknesses, opportunities, and threats (***SWOT***).
 - a. ***Strength.*** A strength is something positive about the region at present. An example could be a trade center that provides growing employment opportunities.
 - b. ***Weakness.*** A weakness is something that hinders the region at present. A good example would be a bottleneck that slows shipments of freight.
 - c. ***Opportunity.*** An opportunity is something positive that could be realized in the future, during the planning horizon. An example could be the completion of a regional general aviation airport.
 - d. ***Threat.*** A threat is something negative that is likely to occur given current trends. An example could be a large number of pavement lane miles that are in deteriorating condition. Lack of necessary future funding will almost certainly be a threat that most regions have in common.
6. ***Identify Critical Issues.*** Identify a few key regional critical issues and transportation needs to be addressed by the plan based on the trends and SWOT analyses completed in steps 4 and 5. This is the point at which the planning process becomes ***focused***.
7. ***Develop Alternatives to Address Critical Issues.*** Develop specific alternatives to address the key transportation issues and needs. For instance, if a critical issue or threat involves deteriorating pavements, an alternative would be to establish a region wide pavement

management and rehabilitation program. Alternative levels of funding and different approaches might be considered for such an effort.

8. **Alternatives Selection.** Use available data sources, information, and knowledge to select the most appropriate alternative by issue for inclusion in the plan.
9. **Action Planning.** Develop action items. For example, specific improvement projects and new programs with project detail for five years and a less detailed plan for the next 15 years.
10. **Fiscal Plan.** Develop funding options for each of the action items. For short-term (5 years or less out) items, a specific cost estimate should be developed along with a proposed funding source. For longer-term items, a “ballpark” funding estimate should be developed and possible alternatives for funding identified. Long-term planning elements need not be fiscally constrained since one purpose of the long-range plan is to identify where new funding sources will be needed to meet regional transportation development goals.
11. **Public Involvement.** Involve the public in a meaningful way to gain input on the proposed plan. The public should be involved when there is something fairly concrete for them to react to. The most appropriate place to involve them is at the stage when the Fiscal Plan step has been completed as a draft. The public should be advised that at the point of public involvement, the plan is subject to revision based upon their input. The suggested format for public involvement is an informal “public open house” rather than a formal “public hearing”.
12. **Final Document Preparation.** This should be accomplished once the public involvement stage is completed and input has been incorporated where appropriate. The published document should be very concise with more detailed technical appendices as needed.
13. **Plan Implementation.** Implement the plan through the regional transportation improvement programming process.
14. **Feedback.** No plan is ever perfect. Forecasts can be wrong and events may occur that simply were not foreseen. All plans need to be improved as the process moves forward. Provide mechanisms for feedback to update the plan.

GIS Map Requirements

SAFETEA-LU required visualization techniques to be incorporated into LRTPs. Additional maps can be added as appropriate, but the core maps are as follows:

Aviation

- Public aviation airports by classification level

Bike/Pedestrian

- Existing and proposed recreational trails by system level (consider overlay on parks and tourist attractions)

Highways and Roads

- AADT (consider additional map for large truck AADT)
- Bridges with condition ratings ≤ 50 (consider overlay on AADT)
- Crash locations and/or crash rates (consider overlay on railroad routes)
- Federal Functional Classification
- Level of Service
- Pavement conditions

Public Transit

- Transit system service regions and routes (consider overlay on minority, low-income, and elderly populations)

Railroad

- Route locations and carrier names (consider including rail traffic density)

Water

- Barge terminals and locks and dams (if applicable)

Other

- General map of region
- Planned projects
- Large employer locations
- Large freight traffic generators (e.g. grain elevators, grain processors, electric generation plants, large factories, large warehouses, ethanol plants, etc.)
- Generalized land use (residential, commercial, industrial, parks, agriculture, forest, wetlands, etc.)
- Planned projects overlaid on environmentally-sensitive areas (e.g. wetlands, threatened and endangered species, protected areas, public areas, archeological/historical/cultural sites, etc.)
- Planned projects overlaid on environmental justice populations (minority, low-income, elderly, etc.)

Maps can be used in combination to develop/select/prioritize the region's TIP projects.

Suggested Plan Document Outline

As was noted in the introduction to this document, the plan document should closely reflect the region's planning process. In some ways, the plan document simply records the steps involved in the planning process. It provides a record of the planning process. However, the planning document is also very important because it communicates the results of the planning process to stakeholders, decision-makers, and champions who can help move a plan from proposal to action.

The following are suggested chapters for an effective plan and the general contents that ought to be included. Of course, a good plan must be tailored to the needs of a region to be effective and the regional staff always needs to approach planning in a creative and flexible manner.

Chapter 1: Regional Planning Process and Stakeholders

This section should briefly provide an overview of the process used to prepare and/or update the regional plan. The steps involved and timeline should be described. This section should include any discussion of the "plan for the plan". This section should also explain how key stakeholders were identified and involved in the planning process. The involvement of stakeholders beyond traditional transportation professionals (e.g. economic developers, recreational professionals, and the private sector) should be included in this chapter. This chapter must also show how the planning process meets applicable Federal regulations regarding consultation in the regional transportation planning process.

Chapter 2: Plan Goals and Objectives

This chapter should cover the region's agreed-upon long range (20 year) transportation goals and objectives. Goals are broad statements of desired outcomes for transportation in the region. Objectives should be measurable and should also have a date by which they should be achieved. Goals and objectives should be agreed upon by stakeholders involved in the planning process.

Chapter 3: Regional Background and Trends

This section should include a concise discussion of the planning region and the main trends that will impact future needs for transportation in the region. These trends should include issues such as population and demographics and economics/economic development. This chapter can be very concise with illustrations of trends as charts, graphs, and maps. When possible, 20 year forecasts should be provided.

Chapter 4: Existing Regional Transportation System Strengths and Weaknesses

The multimodal transportation system should be described in some detail. The description could be organized by mode (e.g. highway, rail, public transportation, aviation, and trails) or by function (passenger and freight). General indicators of system extent (e.g. miles of road or numbers of bridges) should be provided. Indicators of usage and condition should also be provided. So should indicators about safety and mobility (e.g. areas where levels of service are low or which are known bottlenecks). Stakeholders should collectively prepare a concise listing of the region's current transportation system strengths (positive aspects) and weaknesses (negative aspects). Strengths could include such things as a large number of

miles of four lane expressways. Weaknesses might include such things as a large number of low-volume bridges with low condition ratings.

Chapter 5: Planning and the Environment

Include an inventory of the current environmental impacts (see P.6 for required maps). Discuss the coordination activities that will occur between the Policy Board/County Board of Supervisors and the County Conservation Boards and/or local RC & D. Provide a discussion of the potential environmental mitigation activities (not project specific).

Chapter 6: Future Regional Transportation Opportunities and Threats

This chapter should build on Chapter 4 but considers how the transportation system will serve the region in the next 20 years given key trends regarding the population, the economy, traffic, and the condition of the system. Opportunities are positive possibilities in the future. Threats are negative possibilities in the future.

Chapter 7: Key Regional Transportation Needs and Issues

This chapter should identify key future needs of the regional transportation system given the goals, objectives, trends, strengths, weaknesses, opportunities, and threats identified in Chapters 2 through 5. For instance, if the region has a large number of miles of low volume paved roads in poor condition, a key issue might involve the preservation of those pavements or their conversion back to gravel should be developed in this section. The number of key issues addressed in detail in this section should be limited to the most critical issues only. These should be agreed upon by the stakeholders. More minor issues could be discussed in less detail.

Chapter 8: Alternatives to Meet Key Regional Needs and Issues

This chapter should discuss alternatives that were considered by stakeholders to address the key needs and issues identified in Chapter 6. For example, this section might address different approaches to pavement preservation, bridge replacement, trail development, or road safety improvement that might be implemented in the region. Some alternatives will not be selected due to high cost, lack of resources, or lack of effectiveness in achieving regional goals. Alternatives that were selected by stakeholders for implementation should be highlighted in this section and the logic used to select them should be provided.

Chapter 9: Implementing the Action Plan (Years 1-5)

This chapter should provide a detailed discussion of projects (by transportation mode) that are being proposed for the region over the next five years. Details about cost, timing, and funding source should be provided. This section must address the basis of project prioritization for the Transportation Improvement Program (TIP) in the region. A clear rationale for which projects are selected for implementation must be included. This chapter must also demonstrate that all eligible recipients of funding (i.e. counties, large cities, cities less than 5000 population, primary highways/Iowa DOT, and public transit operators) have all been given due consideration.

Chapter 10: Long-Range Plan (Years 6-20)

This section should include a “sketch plan” and/or “policy plan” for the long-range (20 year) transportation system of the region. Major needs for new facilities, capacity, rehabilitation, replacement, and preservation should be included. However, as a sketch plan, the discussion need not provide a great deal of detail about minor projects. Proposed major projects such as a new river bridge crossing, a new highway corridor, a level 1 or 2 recreational trail, or a new airport should be described in as much detail as possible. A map and listing of proposed major projects should be provided. Approximate cost estimates and construction years should be provided for major proposed projects if possible. If the region is planning mainly to preserve existing transportation assets, this should be clearly stated. Any other long-term transportation policies for the region should also be included here. For instance, if a region is striving to develop a comprehensive, interconnected system of recreational trails in the next 20 years, this would be a good section to state that policy.

Chapter 11: Funding the Plan

This section should indicate whether the short range plan (years 5-10) is fiscally reasonable by providing a discussion of proposed uses and sources of funds. A very general discussion of the feasibility of funding the long-range portion of the plan (years 10-20) should also be included. If funding required is far beyond levels available in the recent past or expected future levels, this issue should be discussed clearly. Although it is not required that the long-range plan be fiscally constrained, there should also be a reasonable chance of getting it implemented.

Chapter 12: Public Involvement Process and Results

This chapter should provide a description of how the general public was involved in the regional transportation planning process. The public involvement process (e.g. involvement opportunities and how they were publicized) should be described. In addition, the main results (such as public comments and how they were incorporated) should be summarized.

Chapter 13: Future Regional Transportation Planning Activities

This chapter should discuss how the regional plan will be updated in five years. It should also discuss how feedback will be obtained to support the planning process. Finally, it should discuss more detailed modal plans and special studies that will be undertaken to help implement the regional transportation plan.

Technical Appendices

This section should include materials that are supplementary to previous sections of the plan. For example, appendices on demographic and economic trends or tables about transportation system condition should be included here. Any material that is needed to support the plan but that detracts from the readability of the main chapters of the plan could be included as an appendix. If a large number of acronyms or technical terms are used in the plan, some sort of glossary would be a useful appendix to include for readers to refer to.