# Rapid City Area Metropolitan Planning Organization

# 2004 UNIFIED PLANNING WORK PROGRAM



Prepared by the
City of Rapid City, Pennington County,
Meade County, City of Box Elder
Black Hills Council of Local Governments
South Dakota Department of Transportation

In cooperation with the
U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

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DRAFT

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#### **Acronyms**

**3-C** Continuing, Comprehensive and Cooperative Transportation

Planning

ADA Americans With Disabilities Act of 1990. Mandates changes in

building codes, transportation, and hiring practices to prevent discrimination against persons with disabilities. This act affects all existing and new public places, conveyances, and employers. The significance of ADA in transportation will be most apparent in transit

operations, capital improvements, and hiring practices.

BIT South Dakota Bureau of Information and Telecommunications

**BHCOG** Black Hills Council of Local Governments

**CAC** Citizens' Advisory Committee of the Metropolitan Planning

Organization

**CFR** Code of Federal Regulations

**DART** South Dakota Dept. of Transportation Office of Air, Rail and Transit

**EPC** Executive Policy Committee of the Metropolitan Planning

Organization

**FHWA** Federal Highway Administration

FTA Federal Transit Administration

**FY** Fiscal Year

**GIS** Geographic Information Systems

**CTPP** Census Transportation Planning Package

ITS Intelligent Transportation Systems

MPO Metropolitan Planning Organization

NTD National Transit Database

**PEA** Planning Emphasis Area

PL Metropolitan Planning Funds that have been set aside for

transportation planning activities in Urbanized Areas.

RCATSA Rapid City Area Transportation Study Area

RTAB Rapid Transit Advisory Board

**RFP** Request for Proposals

**Section 5303** Federal Transit Administration mass transportation planning funds.

Section 5307 Federal Transit Administration program that provides capital and

operating assistance to urbanized areas.

Section 5310 Federal Transit Administration program that provides capital

assistance to organizations that provide transportation services to

elderly and disabled persons.

**SDDOT** South Dakota Department of Transportation

**STIP** State Transportation Improvements Program

**TAZ** Traffic Analysis Zone

TCC Technical Coordinating Committee of the Metropolitan Planning

Organization

**TDP** Transit Development Plan

**TEA-21** The Transportation Equity Act for the 21st Century. This five-year

highway bill was approved in June of 1998, and carries on the ISTEA emphasis towards a balanced transportation system, including public transit, bicycle and pedestrian modes, and

environmental and social consequences.

**TIP** Transportation Improvements Program

**USC** United States Code

**UPWP** Unified Planning Work Program

**USDOT** United States Department of Transportation

#### Introduction

The 2004 Unified Planning Work Program (UPWP) is a description of the multimodal transportation planning programs to be conducted in the Rapid City Area Transportation Study Area (RCATSA). This annual document is a foundation for requesting federal planning funds as well as a control tool for scheduling, budgeting, and monitoring the transportation planning process. The City of Rapid City conducts this work program in accordance with the agreements between the City and the Black Hills Council of Local Governments, the City of Box Elder, Pennington County, Meade County and the South Dakota Department of Transportation. Ellsworth Air Force Base, the Federal Highway Administration, and the Federal Transit Administration also participate in the transportation planning process.

Input from involved agencies is required for the development of the UPWP, so that all issues concerning transportation within the study area are equally considered for inclusion. Agencies such as the South Dakota Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, Pennington County, Meade County and Rapid Transit all provide input utilized in the formation of work program tasks.

## **Rapid City Area Transportation Study Organization**

Effective transportation planning requires coordination and direction for all modes of travel as provided by a unified organization. This unified committee organizational structure consists of the Citizens' Advisory Committee (CAC), the Technical Coordinating Committee (TCC), and the Executive Policy Committee (EPC). This structure allows input from citizens, professionals, and those affected by transportation decisions.

The Citizens' Advisory Committee is comprised of private citizens whose input concerning transportation issues provides valuable assistance to the planning process. This committee ensures that public involvement in the transportation planning process remains a priority and that the public is informed of planning developments. Since the planning process is organized for the good of the community, it is imperative that this committee serves as a resource to both staff and the public. Membership of the Citizens' Advisory Committee consists of seven voting members representing various sections of the Rapid City Area Metropolitan Planning Organization. The current active membership of the CAC includes:

Tom Bodensteiner Sandra Burns Dorothy Davis Bill Franklin Adeline Kalmback Meredith Lawson Gary Reynolds Deb McPherson Walt Roetter (Chair)

The Technical Coordinating Committee provides technical review and guidance from planners, engineers, safety officials, airport officials, and representatives from federal and state agencies. This group makes recommendations to the Executive Policy Committee concerning the adoption and approval of all transportation plans and programs such as the Long Range Transportation Plan, the Transportation Improvements Program, and the various reports and plans. The current active membership of the TCC includes (\*denotes a non-voting member of the TCC):

Patsy Horton (Chair) Transportation Planning Process Administration

Dan Coon Rapid City Engineering Division
Doug Adelman Rapid City Traffic Engineer
Don Brumbaugh Rapid City Street Division

Klare Schroeder Rapid City Urban Systems Engineer

Vacant Rapid City Community Development Department

Ken Simmons Rapid City Regional Airport Administration
Sgt. Herb Kistler Rapid City Police Department, Street Division
Vicki Fisher Rapid City Planning Department, Urban Division

Scott Anderson Pennington County Planning Department
Dale Tech Pennington County Drainage Coordinator
Hiene Junge Pennington County Highway Department
Cpt. Bill Armstrong Pennington County Sheriff's Department,

**Traffic Division** 

Kirk Chafee Meade County Director of Equalization

Jack Wilson Meade County Representative

Ken McGirr Meade County Highway Department

Lynn Derby City of Box Elder

Bob Eben Ellsworth Air Force Base

Rich Sagen Black Hills Council of Governments/

Rapid Transit System

Todd Seaman SD Department of Transportation, Region Engineer

Terry Keller SD Department of Transportation,

Division of Planning & Engineering

Willis McLaughlin SD Department of Transportation, Office of Fiscal

& Public Assistance-Air, Rail, and Transit

Section

Mark Hoines\* Federal Highway Administration

The Executive Policy Committee is the authorized decision making group and is composed of locally elected officials, representatives from federal and state agencies, and other local agencies interested in transportation planning. The primary

function of this group is to provide guidance for the planning process, and to ensure coordination among various transportation modes, local governments, and planning efforts. The current active membership of the EPC includes (\*denotes a non-voting member of the EPC):

Jim Shaw Mayor of Rapid City Vern Kienzle Mayor of Box Elder

Lyle Hendrickson Pennington County Commission Chair

Ken Davis (Chair) Pennington County Commission Representative

Bob Mallow Meade County Commission Chair

Curt Nupin Meade County Commission Representative Mike Kenton Rapid City School District Representative

Bill Waugh Rapid City Council Representative

Tory Richardson Rapid City Regional Airport Representative
Jerry Shoener SD Transportation Commission Representative

Ben Orsbon\* SD Dept. of Transportation,

Division of Planning & Engineering

Mark Hoines\* Federal Highway Administration

Vacant\* Ellsworth Air Force Base Representative

The three committees operate under the Federal regulations established by the Transportation Equity Act for the 21st Century (TEA-21). These regulations define the process and organization that must be present.

#### **TEA-21 Planning Considerations**

As transportation plans are developed, whether it is a major street plan, a mass transit plan, or a bicycle/pedestrian plan, there are seven factors that should be considered in the planning process. The UPWP specifies the work tasks to accomplish the transportation planning process and is developed to comply with the seven broad-based requirements identified in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). The designated factors identified as key issues concerning the transportation field include:

- 1. Supporting the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- 2. Increasing the safety and security of the transportation system for motorized and non-motorized users.
- 3. Increasing the accessibility and mobility options available to people and for freight.
- 4. Protecting and enhancing the environment, promoting energy conservation, and improving the quality of life.

- 5. Enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight.
- 6. Promoting efficient system management and operation.
- 7. Emphasizing the preservation of the existing transportation system.

In addition to the seven factors addressed by TEA-21, the Region 8 Office has developed five Planning Emphasis Areas (PEAs). The mission of these Planning Emphasis Areas is to ensure the highest quality of surface and public transportation and to promote the nation's economic and community vitality. The PEA's addressed in the 2004 Unified Planning Work Program include:

Intelligent Transportation Systems
Livable Communities Initiative
Integration of Planning and the Environment
Railroad Grade Crossing Safety
Freight and Goods Movement

#### **Funding**

The two funding sources utilized in this work program are Federal Highway Administration (FHWA) Planning Funds for transportation planning related activities and Federal Transit Administration (FTA) Section 5303 funds for mass transportation planning activities. The City of Rapid City provides the local match for both funding categories at the following ratios:

FHWA PL	18.05% Local	81.95% Federal
FTA (49 U.S.C. 5303)	20.0% Local	80.0% Federal

The FHWA planning funds (PL) budgeted in this program are based on the estimated 2004 allocation and distribution formula as agreed upon by the local government entities and the SDDOT. An agreement between the SDDOT and local governmental agencies as part of a 49 U.S.C. Section 5303 grant for public transportation planning activities provides the avenue for FTA funds shown throughout this work program.

A comprehensive budget is contained at the back of this document. The budget sheet identifies funds for individual tasks and provides total programmed expenditures for each task and funding source. All UPWP line item activities may allow contracts with outside parties upon receipt of appropriate approval of the SDDOT and the EPC.

An annual report, prepared within 180 days after the end of each calendar year, will contain the financial statements of the Rapid City Area MPO UPWP. A summary of staff activities accomplished under the UPWP will also be included.

# UPWP Section 1

# **Federal Highway Administration Activities**

#### **Personnel Services**

These activities directly relate to public awareness and public involvement as well as the effective operation and management of the planning process. To promote and produce an efficient intermodal transportation system, the management emphasis is on activity coordination.

- Staff will participate in the 2004 Rapid City Area MPO transportation planning Certification Process. The SDDOT will conduct a certification review with the MPO on an as-needed basis. The EPC will self-certify the local transportation planning process. Environmental justice compliance will be addressed as part of the certification review.
- 2. Staff will coordinate the execution of the annual PL and Transit planning agreements between the SDDOT, City of Rapid City, City of Box Elder, Meade County and Pennington County.
- Staff will coordinate and jointly develop the 2005 Rapid City Area MPO UPWP.
   The cost of staff time, public notices, and any printing costs will be included in this activity.
- 4. Staff will coordinate with SDDOT to consolidate all consultant contracts into current UPWP.
- 5. Staff will coordinate with SDDOT to consolidate unobligated funding into current UPWP as needed.
- 6. Staff will prepare demographic profiles based on 2000 US Census Bureau and local building permit data to enhance the environmental justice requirements.
- 7. Staff will continue updating and revising MPO planning documents as needed including, but not limited to, the Long Range Transportation Plan, the Public Participation Plan, the Operations Plan, the Bicycle/Pedestrian Plan, the Transit Development Plan, the Functional Classification map, etc.

- 8. Staff will maintain the MPO's accounting and vouchering system, whereby participants in the local transportation planning process are reimbursed for eligible transportation planning work activities through the MPO and the SDDOT with FHWA and FTA funds identified within the UPWP.
- 9. Staff will monitor work activities outlined in the 2004 UPWP and submit vouchers for reimbursement of eligible transportation planning work activities.
- 10. Staff will monitor the implementation of grant activities and present UPWP budget amendments, as necessary, to be acted upon by the transportation planning committees.
- 11. Staff will attend transportation planning committee meetings; other processrelated meetings; and public meetings throughout the planning year. Staff will discuss and distribute information regarding the transportation planning process and transportation improvements.
- 12. Staff will continue to work with social service providers to assure representation of their needs in transportation planning.
- 13. Staff will undertake any activities that support the transportation planning committees and the planning process, including but not limited to the following: coordinating and staffing meetings and public hearings, drafting agendas and meeting minutes, assembling meeting packets and mailings, drafting and publishing public notices, developing reports and documents, maintaining committee membership, creating and maintaining Transportation Planning website, and providing information. The cost of document printing is included in this activity.
- 14. Staff will attend/participate in various training courses, conferences, seminars, workshops, etc. The cost of training, travel and lodging, and staff time for such training will be included in this activity. SDDOT approval shall be obtained in advance of the event, via e-mail, for in-state travel that is PL related. Out-of-state travel must be approved by SDDOT via written travel request and justification in advance of the event.
- 15. Staff will coordinate any FHWA, FTA, and/or SDDOT training opportunities and events throughout the year.
- 16. Staff, as requested, will assist cities and the county within the MPO boundary with their Comprehensive Plans. Assistance provided under the UPWP will be limited to land use assessments, street plan updates, and the preparation of GIS generated maps.
- 17. Staff will assist communities within the MPO in the preparation of GIS maps for land use data on an as needed basis.

- 18. Staff will assist in the preparation of the GIS/TAZ data for Pennington County and Meade County.
- 19. Staff will participate in agency professional memberships and subscriptions related to transportation planning.
- 20. Staff will review USDOT regulations, guidance, and circulars, and review best practices information, from other sources, to ensure compliance with regulations and consider cutting-edge ideas.
- 21. Staff will maintain inventories of transportation information required for transportation planning. Specific inventories include traffic counts and turning movement counts. New data will be gathered and existing inventories will be updated.
- 22. Meade County and Box Elder staff may maintain inventories of transportation information required for transportation planning. Specific inventories may include traffic counts and turning movement counts. New data may be gathered and existing inventories will be updated.
- 23. Traffic information, maintaining inventories and data gathering efforts will be coordinated through City and County staff and transportation specialists in the SDDOT.
- 24. Staff will cooperate with SDDOT efforts to expand the Global Positioning System (GPS) control for South Dakota. As GPS data becomes available, it will continue to be used to establish accurate GIS position data.
- 25. Staff will maintain and update geographic information system (GIS) created base inventory maps of the natural and man-made resources, features, and environmentally sensitive areas that could be adversely affected by changes in the region's transportation system. GIS staff will continue to expand the use of coordinate geometry to input plat information.
- 26. Staff will continue to add land use and socio-economic data to the GIS database.
- 27. Staff will obtain additional aerial photography for inclusion in the GIS.
- 28. Staff will select and conduct studies and associated public involvement activities identified in the LRTP and other studies as approved by the transportation planning committees.
- 29. City and County staff will review proposed land use changes and developmental proposals to determine their anticipated effects on the existing and future transportation system.

- 30. Staff will conduct air quality analysis and coordinate data among those entities involved in the process.
- 31. Staff will update socio-economic data, prepare socio-economic forecasts, and prepare the 2003 Residential Land Use Report.
- 32. Staff will maintain the travel demand forecasting model.
- 33. Staff will analyze impacts related to land use and transportation system coordination on a corridor/study area basis.
- 34. Staff will prepare the 2005-2009 TIP. The TIP will be developed, adopted, and distributed in compliance with all federal, state, and local requirements. The TIP shall include all transportation improvements planned by the participating agencies within the MPO area for the five-year period, including both federal and non-federally funded projects.
- 35. Staff will evaluate all transportation improvement projects for their impacts on intermodal facilities and routes within the urbanized area and the region.
- 36. Staff will account for life-cycle costs when comparing specific project cost estimates to estimates of available financial resources.
- 37. Staff will coordinate the 2004 bus tour of transportation improvement projects by the transportation planning committees and others.
- 38. Staff will develop the Transportation System Management Efficiency Report, which describes the short-range, low-cost improvements completed during the last calendar year.
- 39. Staff will study and begin the process of implementing a pavement management system.
- 40. Staff will continue to analyze the accident statistics city-wide. A critical rate analysis method to identify high collision locations and program safety improvements is employed in the Rapid City Engineering Division. This process will be continued and the Safety Management System Report will be produced.
- 41. A year-end summary of work and financial activities will be provided to SDDOT.
- 42. Staff may participate in other activities associated with the transportation planning process that are not described in this UPWP as mutually agreed upon with the SDDOT. These activities fall under the overall comprehensive, cooperative, and continuing transportation planning process.

#### **Professional Services/Consultants**

These activities address both identified and unanticipated problems and needs that occur during the course of the work program year. Contractual services with consultants or other professionals to conduct studies and other work activities to support traffic needs and project development shall be identified by a corresponding program year.

#### 2004 Work Activities:

- 1. Staff will complete preliminary work on RFPs and other necessary documentation.
- 2. RFPs will be distributed; consultant selection procedures will be followed; and, contracts will be prepared and executed. Staff will be responsible for contract preparation, contract execution, and project management.
- 3. Staff will recommend to the transportation committees, for their approval, the need for special studies and develop work plans for accomplishing these studies. Work under this item may include study coordination meetings, budget preparation, and analysis.
- 4. Staff will conduct transportation-related comprehensive planning, to include land use and major street plans, within the MPO's planning study area.

Estimated Cost: \$160,000

#### **Capital Resources**

These activities include the capital investments necessary to carry out the transportation planning process.

- 1. The following will be acquired, as needed, to support the transportation planning process: computer hardware, software (including software upgrades) and peripheral devices; printing and plotting devices; recording equipment; traffic counters; digital aerial photos; digital contour maps; public notices; reference materials; and commercial printing and printing supplies.\*
- 2. All computers purchased with state funds must be in compliance with the Governor's moratorium.\*

<sup>\*</sup> Federal approval is required before purchased for any item that exceeds \$5,000.

All capital purchases will be reviewed by the SDDOT prior to acquisition. A letter of justification for the requested purchase and the cost of the requested purchase must be submitted to the SDDOT. A minimum of three (3) quotes must be provided if the requested item is not going to be purchased in accordance with the State Purchasing Contract.

It is recommended that computer hardware and software be purchased in accordance with the State Purchasing Contract whenever possible. If the desired hardware or software is not available from the state bid list, it must be approved by the Bureau of Information and Telecommunications (BIT) prior to acquisition. A minimum of three (3) quotes must be provided with the justification for the requested hardware or software and the criteria for emergency purchase of computer hardware or software must be followed.

A letter explaining and justifying all emergency purchases must be signed by the head of the respective department. This process is being established in order to avoid confusion regarding authorization in an emergency.

Criteria for emergency purchase of computer hardware and software:

Application for exemption from moratorium may be made in writing to the South Dakota Department of Transportation Metropolitan Planning Engineer. Each exemption should include the following information:

- 1. A description of the item to be purchased and indication of its compatibility with state government information systems.
- 2. Cost of the item as well as an explanation of how the item is funded.
- 3. An explanation of how this piece of equipment or software will impact state government.
- 4. The name and phone number of a contact person in your department.

# UPWP Section 2

## **Federal Transit Administration Activities**

## **Long Range Transportation Planning (41.13.01)**

#### 2004 Work Activities:

- Staff will review proposed land use changes and development proposals to determine their anticipated effects on the existing and future transportation system.
- 2. Staff will continue to analyze long-term public transportation needs and funding requirements.
- 3. Staff will participate in the land use development process, special studies, transportation planning, project design and the review of implications on the public transportation system.
- 4. Socio-economic data will be integrated with the Public Transportation System and the City/County GIS.

#### **Transportation Improvement Program (41.15.00)**

- Staff will prepare the public transportation portion of the CIP and the 2005-2009 TIP. The TIP will be developed, adopted, and distributed in compliance with all federal, state, and local requirements. The TIP shall include the fiveyear plan for proposed capital and operating expenditures for public transportation and will identify potential funding sources.
- 2. All transportation improvement projects that will be evaluated by staff will be reviewed for their impacts on intermodal facilities and routes within the urbanized area and the region.
- 3. Staff will account for life-cycle costs when comparing specific project cost estimates to estimates of available financial resources.

- 4. Staff will update the public transportation element of the Transportation Safety Management Safety Report, which describes the short-range, low-cost improvements completed during the last calendar year.
- 5. Staff will evaluate and monitor the transit system's operational characteristics in order to identify necessary changes.
- 6. Staff will identify short-range improvements to the public transportation system and will continue to analyze the feasibility of various transit and paratransit service options.

## **Process Operations (41.11.00)**

- 1. Staff will participate in the 2004 Rapid City Area MPO transportation planning Certification Review. The SDDOT will conduct the review and the EPC will self-certify the local transportation planning process. Environmental Justice compliance will be assessed as part of the Certification review.
- 2. Staff will monitor work activities outlined in the 2004 UPWP and submit vouchers for reimbursement of eligible transportation planning work activities.
- 3. Staff will monitor the implementation of grant activities and present UPWP budget amendments, as necessary, to be acted upon by the transportation planning committees
- 4. Staff will attend transportation planning committee meetings; other process related meetings; and public meetings throughout the planning year. Staff will discuss and distribute information regarding the transportation planning process and transportation improvements.
- 5. Staff will review USDOT regulations, guidance, and circulars, and review best practices information, from other sources, to ensure compliance with regulations and consider cutting-edge ideas.
- Staff will provide general administrative support for FTA 49 U.S.C. Section 5309, Section 5307, and Section 5303 grants, including facilitating capital purchases and administering capital improvement projects as well as submitting the Quarterly Milestone Reports and the Financial Status Reports via the FTA's Transportation Electronic Award and Management system (TEAM).

- 7. Staff will continue to participate in regular meetings with not-for-profit transportation providers to pursue opportunities to coordinate the provision of transportation services as well as address unmet needs.
- 8. Staff will monitor vehicle lease agreements with not-for-profit agencies.
- 9. Staff will monitor the transit system's safety and training program and participate in quarterly reviews.
- 10. Staff will verify that the public transportation implications of the Americans with Disabilities Act (ADA) are being met.
- 11. Staff will assist the Transit Advisory Board in its review of local applications for Section 5310 capital assistance. The review and ranking of applications will be conducted per the working agreement with the SDDOT.

## Other Planning - Transit (41.17.00)

- 1. Staff will attend/participate in various training courses, conferences, seminars, workshops, etc. The cost of the training, travel and lodging, and staff time for such training will be included in this activity.
- 2. Staff will purchase agency subscriptions to transit-related literature.
- 3. Staff may complete other transit-related planning activities and special studies as approved by the transportation planning committees.

#### **2004 UPWP BUDGET SPREADSHEET**

FHWA Budget Sheet (81.95%)						
	Box Elder	Rapid City	Meade County	BHCOG/ Rapid City	SDDOT Air, Rail & Transit	Total
Personnel Services	\$900	\$310,938	\$42,034	\$13,900		\$367,772
Professional Services/Consultants		\$131,906				\$131,906
Capital Resources		\$10,000	\$30,466			\$40,466
Total Cost	\$900	\$452,844	\$72,500	\$13,900		\$540,144
FHWA Amount 81.95%	\$738	\$371,106	\$59,414	\$11,391		\$442,649
Local Match 18.05%	\$162	\$81,738	\$13,086	\$2,509		\$97,495

FTA Budget Sheet (80.00%)							
	Box Elder	Rapid City	Meade County	BHCOG/ Rapid City	SDDOT Air, Rail & Transit	Total	
Long Range Transportation - 41.13.01		\$70,084	\$1,500			\$71,584	
Transportation Improvement Program - 41.15.00		\$15,481	\$1,000	\$200	\$3,760	\$20,441	
Process Operations - 41.11.00		\$2,076		\$3,900	\$4,240	\$10,216	
Other Planning (Transit) - 41.17.00		\$500				\$500	
Total Cost		\$88,141	\$2,500	\$4,100	\$8,000	\$102,741	
FTA Amount 80%		\$70,513	\$2,000	\$3,280	\$6,400	\$82,193	
Local Match 20%		\$17,628	\$500	\$820		\$18,948	
Dart Match					\$1,600	\$1,600	
Combined Totals	\$900	\$540,985	\$75,000	\$18,000	\$8,000	\$642,885	