

# **SCOPE OF WORK**

US 24 EAST PLANNING DOCUMENT

US 24/POWERS INTERCHANGE to CALHAN, COLORADO

PROJECT NUMBER: NH 0252-058

SUB ACCOUNT: 12412

DATE: March 12, 2008

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## **I. GENERAL PROJECT DESCRIPTION**

The Colorado Department of Transportation is seeking professional services for a Planning Document (PD) on US 24. This project has been established to determine possible future improvements of US 24 from Powers Blvd (SH 21) to the Town of Calhan. The project goal is to create a planning document to determine a preferred alternative(s), project priorities and contribute to the local planning process.

The limits of this project will be from the US 24/Powers Interchange east along US 24 to Calhan, Colorado located in El Paso County, Colorado.

Respondents should view this “Scope of Work” as an outline. Specific Task Order Scopes of Work will be negotiated with the successful project team.

The major elements of this contract may include the following services: Public Communication Process and Outreach, Data Collection, Corridor Traffic Study/Travel Demand Forecast, Development of Alternatives including a no-build, General ROW Analysis, Land Use Analysis, Environmental Analysis, Project Implementation Plan, Final Report, and Final Approval/Adoption by Local Governments.

This contract may be supplemented for: preliminary design, environmental clearance as necessary for one or more given corridor priority projects, and final design as necessary.

Respondents should view this “Scope of Work” as an outline. The contract type will be Project Specific – Non Task Specific. The contract work will be done on an “as needed basis”. The term “as needed”, means that neither CDOT nor the Consultant has an obligation under the contract unless and until a task order is issued.

### **Segment Description**

The existing section of US 24 is a category expressway consisting of a four lane divided expressway from Powers to Dodge/Garrett Road. From US 24 to Peyton, US 24 is defined as a two lane expressway with various improvements at major intersections.

### **Previous Studies and Plans (Completed and In-Progress)**

Previous and on-going studies and plans relevant to this Scope of Work include:

- US HWY 24 Access Control Plan, Peterson Blvd. to Elbert Highway January 2005, prepared by URS for CDOT.\*
- Environmental Assessment, Powers Boulevard Extension North, Woodmen to I-25, July 1997, prepared by URS Greiner for the City of Colorado Springs. \*
- Powers Boulevard Interchange Feasibility Study, February 1997, prepared by CH2M Hill for the City of Colorado Springs and URS Consultants. \*
- South Powers Boulevard Feasibility Study, July 2000, prepared by URS for the Colorado Department of Transportation, El Paso County, Pikes Peak Area Council of Governments and the City of Fountain. \*
- Phase II US 24 Bypass: Academy Boulevard to Platte Avenue, August 1992, prepared by CRSS, Inc. for the Colorado Department of Highways. \*

- I-25 Environmental Assessment and Finding of No Significant Impact, September 2004 prepared by Wilson & Company for the Colorado Department of Transportation, Project Manager – Doug Eberhart.\*\*
- South Metro Accessibility Study, July 2004, prepared by CH2M Hill for the City of Colorado Springs, Project Manager – Steve Jacobsen.\*\*
- East – West Mobility Study, July 2002, prepared by BRW for the City of Colorado Springs, Project Manager – Craig Blewitt. \*\*
- Woodmen Road Environmental Assessment, December, 2005, prepared by URS and DMJM for the City of Colorado Spring and El Paso County, Project Manger – Dan Krueger\*\*
- Environmental Assessment , Powers Boulevard Central, Woodmen to Mesa Ridge Parkway, currently being prepared by JF Sato for the Colorado Department of Transportation, Project Manager – Jim Bumanglag.\*\*

\* Denotes studies that CDOT will make available to Consultants for reproduction.

\*\* Information about these projects can also be found at [//www.springsgov.com/](http://www.springsgov.com/) or [//www.i25coloradosprings.com](http://www.i25coloradosprings.com) or [www//thepowerslink.com](http://www.thepowerslink.com) or [www/woodmenroad.com](http://www.woodmenroad.com)

## **II. DESIGN CRITERIA**

All work will conform to the applicable standards of the Colorado Department of Transportation (CDOT) unless directed otherwise by the Colorado Department of Transportation Project Manager (CDOT/PM). The alternatives for this project will use English standards. The most recent editions in effect as of the date of this Scope of Services of the following criteria will be utilized:

- AASHTO - A Policy on Geometric Design of Highways and Streets
- CDOT Design Manual
- CDOT Survey Manual
- CDOT Right of Way Manual
- CDOT Drafting Manual
- CDOT Standard Specifications for Road and Bridge Construction
- CDOT M & S Standards
- CDOT Bridge Design Manual
- CDOT Bridge Detailing Manual
- CDOT Bridge Rating Manual
- CDOT Bridge Standard Plans and Details as applicable
- CDOT Construction Manual
- FHWA Manual on Uniform Traffic Control Devices

It is anticipated that for work outside the proposed US 24 right-of-way, specifically regarding improvements to the local roadway network and utilities, the Consultant will utilize the City of Colorado Springs Standards and El Paso County Department of Transportation Standards, including:

- Colorado Springs Water Standard Details and Specifications
- Colorado Springs Sewer Standard Details and Specifications
- Colorado Springs Gas Standard Details and Specifications
- Colorado Springs Electric Standard Details and Specifications
- Colorado Springs Engineering Standard Details
- El Paso County Department of Transportation Engineering Criteria

#### **Items to be furnished by CDOT**

The following items will be available for reproduction upon request :

- CDOT accident history data
- CDOT Safety Report
- Aerial photography and planimetric mapping, where available
- As-constructed roadway, structure, and existing right-of-way plans of state highway facilities, as contained in existing archives

#### **Additional project information**

This contract may be supplemented for unanticipated work that may arise during the course of the PD development. Supplementing this contract will depend on available funding and CDOT personnel resources. CDOT reserves the right to assign planning, environmental and design work to other consultants or to CDOT staff, as it deems appropriate.

### **III. SCOPE OF SERVICES (CONSULTANT)**

#### **Purpose and Need Statement**

The Consultant, in consultation with CDOT, shall develop a purpose and need statement for the project and establish appropriate study limits.

#### **Planning Document (PD) Overview**

The objective of this PD is to outline improvements to the transportation system, which will provide safe and reliable transportation, will balance transportation needs with environmental issues. The PD will coordinate efforts with two planning regions for the Pikes Peak Area Council of Governments MPO and Central Front Range TPR.

The PD is intended to be a comprehensive study of alternatives with a preferred alternative(s) for implementation and construction. The analysis of alternatives shall be conducted through a systematic screening process. The study should examine all-reasonable alternatives suggested during the open public participation process or as a result of technical analysis. All alternatives will be examined for their ability to meet the project's purpose and need. Each alternative will be examined through a screening process and in relation to various criteria: e.g., safety, people moving capacity, environmental impacts, economic impacts, and social impacts.

This "Scope of Services" will include the preparation of a Draft Planning Document (DPD) for review and a Final Planning Document (FPD) for approval and adoption by local governments.

The approach and products outlined below reflects CDOT's current plan for determining the transportation improvement(s) to US 24. Therefore, respondents should assume a significant amount of flexibility and respondents should demonstrate their ability to respond to multiple and changing conditions. The resulting contract will be a task order contract. Individual task orders will be written to direct Consultant tasks.

### **Process**

The process of the PD should include CDOT interaction with stakeholders during project scoping and throughout the process. The process will involve a conceptual analysis of alternatives, environmental analysis of the alternatives, economic and social review for the planning region, screening of alternatives, continuous documentation and report preparation. The Consultant will provide sufficient information for an informed decision. The Consultant shall develop a PD to compare the potential environmental, economic, and social impacts of the proposed action based upon all available information, pertinent studies, engineering analysis, agency input, and public involvement. Following adoption of the DPD, a FPD will be prepared for agency approval.

A public involvement process will be conducted. This will involve interagency coordination, public meetings, public open houses, town council meetings, county commissioner meetings, homeowners and business associations meetings, and meetings with environmental and other special interest groups.

### **Products**

The products of the PD should include a detailed report describing: the area's existing conditions, a documented record of public involvement, the need for transportation improvements given existing and projected traffic volumes, conceptual design of reasonable alternatives, traffic analysis of the alternatives and results from impacts of the proposed action to the social, economic, physical environment.

The PD should also identify and determine a number of projects based on priority and independent utility. The PD should identify the process for determining the final environmental clearance for each defined future project.

### **Project Coordination**

The routine working contact will be coordinated between the CDOT Project Manager and the Consultant Project Manager. These two project managers should communicate periodically and provide each other with synopses of their respective contacts with others, copies of pertinent written communications, and discuss pertinent CDOT policy decisions. Phone calls and electronic mail are acceptable and encouraged formats of communication. Joint project management meetings with the Consultant team members and CDOT team members should take place routinely.

The Consultant Project Manager will:

- Coordinate all contract activities with the CDOT Project Manager
- Provide invoices and work status reports.
- Provide minutes of all meetings: The minutes will be completed and provided to the CDOT Project Manager within five working days after the meeting. When a definable task is discussed during a meeting, the minutes will identify the “Action Item,” the agency/person responsible for completing it, and the proposed completion date.
- Provide draft reports and submittals to CDOT prior to their content being utilized in follow-up work efforts.
- Keep a current “to do” task list to track the status of major and minor tasks.

### **Consultant Responsibility**

The Consultant will be responsible for all aspects of the investigation and evaluation of the work elements required for preparation of the PD. The Consultant shall provide needed clerical support dedicated to this study throughout the course of the study period. The Consultant will perform work in the following areas:

- Overall project administration, including preparation of an administrative record
- Agency and public meetings
- Preparation of the final document
- Coordination of CDOT, FHWA, and cooperating agencies (if applicable) reviews
- Final document revisions
- Field reviews, if needed
- Coordination of study review, concurrence, distribution
- Certain tasks may require a PE and/or PLS with Colo. St. Bd of Reg. For PE & PLS

### **Work Products**

Work products include graphic displays and materials used for the public participation process, technical reports, and preliminary design plans of alternatives, the PD document and other support documents. The CDOT Contract Administrator or his designee must accept all submittals. In general, all reports and submittals must be accepted by CDOT prior to the content being utilized in follow-up work efforts.

The Consultant shall attempt to provide work products in formats that are compatible with CDOT’s software and hardware. If it is not possible to provide work products in a CDOT compatible format, hard copies shall be provided. Also, the Consultant shall establish electronic mail and messaging capabilities that are compatible with CDOT’s capabilities.

## **A. Public Communication Process and Outreach**

The Consultant shall prepare a Public Involvement Plan setting out goals for contacting members of the public and other stakeholders through the study process. This plan shall discuss the following:

- Interagency coordination
- Town council meetings
- County commissioner meetings
- Environmental agencies and other special interest groups
- Smaller group meetings with affected property owners and business owners
- Public Meetings/Workshops
- Media Advisory's/Media Interviews

Besides CDOT, FHWA, and the traveling public other stakeholders in this area include but are not limited to the following list:

- TAC Representatives
- PPACG
- Developers
- Peterson Air Force Base
- Colorado Department of Public Health and Environment
- Town of Falcon, Peyton, and Calhan
- El Paso County
- City of Colorado Springs
- Emergency Agencies (Fire, etc.)
- School Districts
- CDOT Maintenance
- El Paso County Parks
- Historic Agencies
- US Corp of Engineers
- Division of Wildlife
- USFWS
- Colorado Springs Airport
- Meadow Lake Airport

### **Public Open House Meetings**

The Consultant shall organize, prepare for, conduct and document two (2) general open house meetings. These meetings will be held in a workshop format and may include a formal presentation.

The Consultant shall be responsible for coordinating publicity in advance of the public meetings and for Notices of Availability. The Consultant shall also prepare and distribute a newsletter prior to each public meeting updating the status of the study. Notifications and advertisements shall be approved in advance by CDOT.

A combination of communication aids shall be used for the public meetings which could include graphics, wall displays, PowerPoint slides and presentations.

The Consultant shall maintain a listing of all attendees of all public meetings including technical staff, CDOT staff, public officials and citizens. All citizens shall be encouraged to provide written comments concerning the project. The Consultant shall collect all comments either from handwritten, e-mail, or website and prepare a final communications record for each public meeting.

**Website:**

The Consultant shall maintain and modify as necessary the current US 24 website. The Consultant will be provided access to change and update the website as necessary including updating graphics, updating corridor progress, posting announcements for public meetings and responding to related web e-mail inquiries on the project and status of the Corridor.

**Small Group Meetings**

The Consultant shall conduct up to five (5) small group meetings with business groups, special interest groups, and elected officials as necessary to provide the project status and acquire public comments. The Consultant shall provide all related graphics as necessary for communicating information on the corridor.

**B. Data Collection**

The Consultant shall collect existing and continuing studies, reports that will assist with the development of this PD. Which may include but not limited to:

**1. Corridor Updates**

The Consultant shall collect and utilize any corridor updates from El Paso County including small area forecasts, land use reports, zoning information, etc.

**2. Mobility and Traffic Studies**

The Consultant shall collect and utilize any mobility studies or traffic studies completed by El Paso County, local development, Metropolitan Planning Districts and the City of Colorado Springs.

**3. Airport Studies**

The Consultant shall obtain airport studies and development plans as necessary including current planning documents for the Meadow Lake Airport.

**4. Access Control Plans**

CDOT has completed a portion of the PD area access control plan, US HWY 24 Access Control, Peterson Blvd. to Elbert Hwy and will be available.

No access control plan for the remaining PD area will be required, existing accesses shall be shown on preferred alternative(s).

**5. Development Plans**

The Consultant shall collect all necessary existing and future development plans that will assist in the development of the alternatives.

## **6. Survey Mapping**

The Consultant will generate mapping from FIMS mapping obtained from the City of Colorado Springs and El Paso County.

No supplemental surveying will be required for this scope of services.

## **7. Utilities**

The Consultant will review available utility records and maps to prepare a base map of known utilities, which includes sanitary sewer, water, electric, gas, telephone, cable television, fiber optics, etc.

The Utility Base Map will be used to identify possible conflicts during the development of the alternatives.

No surveying or potholing of utilities will be required.

## **8. Environmental Resources**

The Consultant will be required to collect the necessary data and records that will be required to complete the Environmental Analysis section.

## **9. Drainage**

The Consultant shall identify major drainage ways within the PD area. The major drainage ways shall be classified as regulated floodplains or non-regulated floodplains. Identify major drainage structures, i.e. CBC's, etc. Cross-culverts are not required to be located.

The Consultant shall also identify potential drainage problems or conflicts.

## **10. Safety Assessment**

No safety study will be required by the Consultant, CDOT will provide the safety study for the PD area.

## **C. Corridor Traffic Study and Travel Demand Forecast**

The Consultant will be responsible for analyzing all traffic and demographic information for the project. The Consultant shall conduct a capacity (Level of Service) analysis, and examine the traffic impacts of reasonable alternatives (including the No-Action Alternative), affected arterial roadways, and any logical alternative routes. The data and forecasts shall include percentages of trucks, directional splits and turning movements. The alternative designs shall be analyzed with the traffic project data to develop the appropriate roadway geometry forecast data (i.e., number of lanes, auxiliary lanes, storage lengths, interchange configurations, weaving distances, etc.).

The consultant shall obtain present day traffic counts from current traffic studies and models. Once the existing conditions are assessed the Consultant shall obtain input from PPACG on the projected 2035 traffic volumes for the no-action and proposed action.

The detailed roadway alternatives should be refined in accordance with all appropriate CDOT manuals, procedures and policies. The Consultant will evaluate traffic impacts based on projected levels of service and corresponding delays, travel times and speeds, and improvements necessary to mitigate adverse impacts. The Consultant will also evaluate accident experiences in the study area, identify specific safety-related problems, and suggest methods to address the problems. The traffic and accident analysis shall consider, at a minimum: alternate routes, accident history, congestion, interchanges, construction impacts, economic development, local commitment and hazardous materials transport.

## **D. Development of Alternatives**

### **1. Alternative Evaluation Criteria**

The consultant will develop a range of reasonable alternatives (including the No-Action Alternative) that will justify the Purpose and Need requirements of the project. The Consultant will develop data and information sufficient to evaluate these alternatives. Evaluation shall use, but shall not be limited to, the following criteria:

- Meets the purpose and need
- Consistent with transportation goals
- Minimizes costs on a conceptual level
- Maintains and enhances Mobility
- Considers accident history while improving safety
- Minimizes environmental impacts
- Minimizes ROW impacts
- Maintains consistency with land use planning.

### **2. Identify Segments of Independent Utility**

The consultant shall identify independent segments or projects within the preferred alternative that could be constructed in phases to meet the overall purpose and need of the project. These project and/or segments shall be selected based on reasonable logical termini considering planning, development of adjacent roadway projects, development projects and available and anticipated funding levels. The Consultant will aid CDOT project staff to determine future documents necessary for final environmental clearance including Categorical Exclusions, and Environmental Assessments if necessary.

### **3. Conceptual Design and Screening**

The Consultant shall analyze selected alternatives utilizing a NEPA-appropriate screening process to screen alternatives that don't meet the project purpose and need or that are obviously infeasible. The rationale for elimination shall be thoroughly discussed with the NEPA documentation for those alternatives that are eliminated from further consideration. From the final list of reasonable alternatives, the Consultant shall further evaluate these alternatives along with the No-Action alternative for determining the preferred alternative.

It is anticipated that final screening of reasonable alternatives will involve a limited level of design work. It is anticipated that the work could required the following:

- General alignment
- General typical sections
- Interchange locations, no determination on what type of interchange
- Intersection locations
- Frontage road locations
- Bridge locations with number of spans
- Existing accesses
- Cross –sections if needed to further evaluate a impact

#### **4. Selection of Preferred Alternative**

CDOT and the Consultant from the final alternative analysis will select at least a preferred alternative along with the No-Action Alternative to document impacts and determine general mitigation as necessary.

#### **E. General ROW Analysis**

The Consultant shall prepare mapping to identify ownership using information from previously developed CDOT ROW plans, real estate listing, courthouse records and other existing right-of-way documents. Ownership mapping shall identify land use such as retail, wholesale, commercial, industrial, residential, vacant, mixed use and publicly owned land.

CDOT will make available to the Consultant existing ROW maps/plans were available. In general the Consultant **will not** be required to provide right-of-way surveys to determine final ownership unless directed by CDOT.

The consultant will complete a review of the proposed action on ownership. The consultant will summarize the following in tabular and graphic format:

- A list of potential effected property owners
- Preliminary assessment of area of impact
- Future anticipated area of right-of-way needs
- A preliminary cost of land acquisition including relocation.

#### **F. Develop Land Use Analysis**

The Consultant shall identify the existing and future land use within the project limits using land use mapping. The Consultant shall describe impacts from the proposed action on current and future land use planning.

#### **G. Environmental Analysis**

##### **1. Noise**

The Consultant shall identify areas where noise abatement potentially is needed. The analysis shall identify sensitive land use areas and discuss current noise abatement criteria including any City ordinance and Federal Requirement that might be applicable for any future noise analysis. In summary, no formal noise study will be required.

## **2. Water Quality**

### **Wetlands**

The Consultant shall examine previous wetland reports by the City, County, and CDOT to determine previously documented locations. The consultant will verify the existing wetlands information with field observations and include discussion in the context of the alternatives and potential long-term impacts. The Consultant shall then complete a final analysis on effected wetlands with the proposed action. This analysis shall include major drainageways streams, tributaries, and other waters of the state.

### **MS4**

The Consultant shall prepare an analysis to determine feasible mitigation plans for maintaining MS4 compliance. This shall include identify possible locations of future BMP such as water quality ponds, drainage structures, grass lined swales, etc.

## **3. Paleontology/Archaeology**

The Consultant will determine by literature survey if paleontological and archaeological resources maybe present. In addition, the consultant will conduct a preliminary field investigation to verify or qualify any known resources. The Consultant will analyze potential adverse impacts from the preferred alternative to determine appropriate future mitigation.

## **4. Floodplains**

Regulated floodplains shall be identified and shown with the preferred alternative. The Consultant **will not** perform a detailed floodplain analysis; however, the Consultant will document the potential impacts to existing floodplains from the proposed action. The Consultant will coordinate preliminary design of any major drainage location with current adopted floodplain models and planning efforts.

## **6. Wildlife**

The Consultant shall include a summary of the wildlife, refuges and conservation efforts that potentially could effect the corridor.

## **7. Historical**

The Consultant will identify historical districts, historic sites, cultural resources and historic bridges. The alternative(s) will identify impacts from these resources. It may require contacting the CDOT Historian or the State Historic Preservation Office.

## **8. Threatened and Endangered Species [T&E]**

The Consultant will determine the presence of T&E species within the corridor. The Consultant will review surveys and studies that may have been completed. The consultant will also coordinate with other state and federal agencies.

## **9. Parkland Activity [4(f)/6(f)]**

The Consultant shall determine if 4(f) and/or 6(f) exists within the defined corridor and shown with the preferred alternative.

## **10. Farmlands**

The Consultant shall determine the locations of existing farmland within the corridor.

## **11. Visual Resources**

The Consultant shall identify potential visual impacts within the corridor.

## **12. Hazardous Materials and Waste**

The Consultant shall identify potential areas that may contain hazardous materials and waste.

## **13. Socioeconomics and Community Services.**

Population, income and employment shall be determined based on the 2000 Census and local governments.

## **H. Implementation Plan**

The Consultant and CDOT shall coordinate with the PPACG to maintain compatibility of the US 24 East Project with the Region's Long Range Plan. The Consultant will develop a Phasing Implementation Plan to document considerations for future implementation of a proposed action that ties into PPACG's Long Range Plan.

The implementation plan shall consider project packaging options to address anticipated and available funding levels and the priority of any proposed improvements.

## **I. Prepare Final Report**

The following activities will be accomplished by the Consultant in accordance with relevant policies and procedures used in the CDOT and FHWA planning process under NEPA.

- Prepare the PD in accordance with CDOT and FHWA guidance and procedures
- Compile all relevant data and studies, public input, etc.
- Coordinate the findings of all studies
- Take necessary actions to resolve issues
- Distribute the preliminary PD for review to those specified by CDOT
- Coordinate the issues with appropriate local government agencies and CDOT person(s)

Using all available information and data, the Consultant will, over the course of the study develop a Draft Planning Document (DPD). The following chapters will be included at a minimum:

- Purpose and Need (includes existing and future conditions, problems, issues)
- Evaluation Methodologies (including preliminary screening, conceptual evaluation, and detailed evaluation criteria and methodologies, etc.)
- Conceptual Alternatives Analysis
- Preferred Alternatives (includes traffic/accident, transit, land use right-of-way, cost estimates, and detailed evaluation)
- Environmental Analysis
- Segments of Independent Utility
- Implementation Plan

## **J. Final Approval and Adoption by Local Governments**

Upon receipt and compilation of internal and external comments on the DPD, the Consultant will prepare the Final Planning Document (FPD) with all the chapters described above.

The specific deliverables required for each task will be defined on a task order basis.

Deliverables will be required to sufficiently document the method of analysis and results for the PD tasks and for the project management and coordination tasks.

After FHWA agreement/approval, CDOT will seek adoption from the local governments