EXHIBIT A.1 – SCOPE OF SERVICES

The following identifies a specific scope of professional services to be performed by CJW Transportation Consultants, LLC (the Consultant) and its subcontractors in accordance with the standard practice of the Joplin Area Transportation Study Organization (JATSO) for the completion of the Long-Range Transportation Plan Update.

Task 1 – Project Management

Task 1.1 – Kick-Off Meeting

A kick-off meeting will be held shortly after the Consultant receives Notice to Proceed. The meeting will be held with members of the JATSO project advisory team and will be used to discuss project assumptions, define project guidelines, identify project stakeholders, and review the Draft Project Management Plan and Draft Public Participation Plan.

Task 1.2 – Project Advisory Team Meetings

The Consultant will attend meetings with the JATSO project advisory team up to three (3) times throughout the study process. The Consultant will provide an update of study progress and will seek approval of work product completed prior to the meeting. As necessary, the Consultant may arrange for web based conference calls to allow the team to present verbally and visually the in-progress findings, maps, and supporting graphics thereby enhancing the overall efficiency of the meetings.

Task 1.3 – Project Oversight

This task includes activities required to manage the study including staff, equipment, material resources and documentation.

Task 2 – Data Collection and Review

The Consultant will obtain available data from a variety of public sources including citizens, JATSO, local and state officials, city councils, a regional planning commission and a citizen transportation task force.

Task 2.1 – Document Review

The consultant will review and use information in documents developed over the past five years (or the most recent applicable update) including, but not limited to:

- The current JATSO Long Range Transportation Plan

- South Joplin Area Transportation Study
- City of Joplin Comprehensive Plan
- City of Webb City Comprehensive Plan
- City of Carl Junction Comprehensive Plan
- City of Carterville Comprehensive Plan
- Village of Leawood Comprehensive Plan
- Village of Airport Drive Comprehensive Plan
- Village of Saginaw Comprehensive Plan
- Joplin Metropolitan Area Origin-Destination Study
- West Corridor Purpose and Need Study
- I-44 Purpose and Need Study
- Joplin Airport Master Plan
- Joplin Metropolitan Area Bicycle-Pedestrian Study
- Joplin Area Transportation Study Organization Transportation Improvement Program
- Public Transit-Human Services Transportation Coordination Plan
- Joplin Chamber of Commerce Vision 2020 Plan
- City of Joplin CIST
- Harry S Truman Coordinating Council Transportation Plan
- 4-States Clean Air Action Plan
- JATSO Unified Planning Work Program

Task 2.2 – Base Mapping

JATSO will provide to the Consultant available base maps in electronic format including aerial photography, floodplains, floodway, all known environmental features, and any additional relevant GIS data readily available.

Task 2.3 – Travel Demand Model

JATSO will provide all of the existing TransCAD Travel Demand Model files to the Consultant for use in the project. Files to be provided by JATSO include all base model files, all script files, all scenario files, all lookup tables, and all documentation related to model setup, calibration, and performance. It is recognized that certain land use and network changes have occurred since the last model update; however, apart from updates to be performed as part of this scope, the accuracy and reliability of the existing model will be the responsibility of JATSO and not that of the Consultant, insomuch as the model will be reasonable and justifiable.

Task 2.4 – Traffic Data

JATSO will provide to the Consultant available traffic data including intersection turning movement counts (AM and PM peak hour) and 24-hour link volume counts (in 15-minute increments). The Consultant will collect additional traffic

volume data as necessary for use in validating existing conditions in the updated travel demand model. Traffic volume and origin-destination data will be obtained from a third party vendor (AirSage) through processed wireless signaling data.

Task 2.5 – Transit Information

JATSO will provide to the Consultant available data concerning existing MAPS and Sunshine Lamp Trolley transit services. This information will include route locations and service levels, available ridership data, and financial information.

Task 2.6 – Pedestrian Facilities

The Consultant will obtain from JATSO maps showing the location of existing and proposed on-street and off-street bicycle/trail facilities. The information will also include, as available the identification of existing and/or proposed pedestrian friendly amenities provided at or along these bicycle/trail facilities. These may include bicycle racks, lockers, benches, trash receptacles, lighting, wayfinding signage, and on-street lane demarcations.

Task 2.7 – Relevant Reports

JATSO will make available to the Consultant any reports involving new or proposed developments, capital improvements, or other issues within the metropolitan area that could affect potential roadway, transit, bicycle, pedestrian, air, or freight facility improvements.

Task 3 – Public Participation

This task involves the development and implementation of the public participation program. It includes activities necessary to effectively disseminate and obtain information regarding transportation issues, developing alternatives, and the evaluation process.

Task 3.1 – Online Project Information

The Consultant will assist JATSO in developing and maintaining project information on the existing JATSO website containing regular project updates and downloadable documents for review, and input/comment opportunities for JATSO representatives and project stakeholders. Among the data to be posted on the website may include but need not be limited to:

- Goals and objectives of the project
- Schedule of anticipated tasks, meetings, and milestones throughout the process
- Notifications/flyers of project advertisements and meeting dates

- Draft findings, analyses, recommendations, and supporting maps and graphic
- Summary memorandums of stakeholder input collected during project meetings and public events
- Draft summary report and documentation

Task 3.2 – Stakeholder Meetings

The Consultant will conduct interviews with project stakeholders to solicit input on transportation related issues, opportunities, and desires as they relate to their specific constituents. A separate meeting is anticipated to be held with each project stakeholder group including:

- Municipal leaders, staff, and representatives (one-group)
- Freight Haulers (one group meeting)
- Transit Providers/Bicycle Interest Groups (one group meeting)
- Emergency Responders/Human Service Agencies (one group meeting)
- Schools/Universities (one group meeting)
- Retail Centers/TIF Districts, etc. (one group meeting)

Participants will be invited to participate in an approximately 90 minute meeting to present and exchange information regarding transportation issues, opportunities, desires, and potential projects. The meetings will be conducted at JATSO's offices and will be held over the course of two (2) days.

The input collected during the meetings will be used as the foundation for preparation of the transportation plan recommendations to be developed later during the planning process.

Task 3.3 – Public Meeting

The Consultant will conduct one informational meeting that will be open to the general public. The meeting will be an informal "open house" forum. During the meeting the Consultant team will provide information related to the project goals and objectives and provide ample time for participants to meet with the study team, view exhibits, receive materials, inquire about the process and anticipated outcomes, and provide written and verbal input. It is anticipated the open house will be held concurrent with the two day stakeholder meetings.

JATSO will provide meeting space and, with the Consultant's assistance, be responsible for mailings, public notices, dissemination through social media, and other means of letting the public know the time and location of the meeting. Notices will also be sent directly to Neighborhood Associations. The Consultant will prepare background information to be used in preparing meeting notices.

Task 3.4 – JATSO Meeting Presentation

An official meeting of the Joplin Area Transportation Study Organization will be held following the two day stakeholder meetings and public open house. The Consultant will provide a presentation which highlights the study process, goals and objectives, updated status, overview of the input collected during the stakeholder meetings and open house, and encourages additional public input.

In conjunction with the Kick-Off Meeting, the team will coordinate with JATSO to define the dates for the meetings discussed above as well as necessary logistics to make the meetings successful.

Task 4 – Travel Demand Modeling

The Consultant will utilize the model provided by JATSO, as described in Task 2.3, in order to perform the analysis discussed in Task 5.

Task 4.1 – Base Model Update

The Consultant will update the travel demand model to reflect land use changes and network updates that have occurred since the last model update. Calibration of the existing conditions model will be performed utilizing available traffic data to be obtained as part of Task 2. The Consultant will also create a year 2035 model to forecast future year conditions to be utilized as part of project analysis.

Task 4.2 – JATSO Staff Training and Modeling Assistance

The Consultant will setup and conduct a two (2) day workshop to demonstrate the model setup and application to JATSO staff. The intent of this workshop would be to train the JATSO staff in TransCAD software and JATSO model applications. Additionally, the Consultant will attend up to 8 hours of web conference meetings with JATSO staff to further provide ongoing support and assistance.

Task 4.3 – Alternative Network Analysis

The Consultant will update the travel demand model network for the future year 2035 conditions as necessary to evaluate individual projects and groups of projects. Up to ten (10) individual projects will be evaluated along with up to five (5) groups of projects. The evaluation criteria will include appropriate measures

of effectiveness. The consultant will produce a map illustrating the impacts of each analysis alternative.

Task 5 – Traffic Analysis

This task includes developing traffic projections for each of the alternatives under study as well as conducting the traffic engineering analysis.

Task 5.1 – Existing Traffic Analysis

The existing transportation system will be analyzed using current turning movement data, 24-hour counts, lane configuration and traffic control device information provided by JATSO. The Consultant will analyze up to fifteen (15) intersections depending upon the availability of existing peak hour turning movement counts. Included in this Task will be an analysis indicating deficiencies in the existing transportation system. For intersection analysis the AM and PM peak hours will be investigated.

Analysis will also include evaluation of roadway segments based on representative daily capacities for typical arterial and collector streets and average daily traffic (ADT) volumes where available.

Any traffic counts collected by the Consultant which are deemed necessary, as agreed upon between JATSO and the Consultant, for the completion of existing analysis shall be considered additional services and are not a part of this Scope of Services.

Task 5.2 – Future Conditions

Using future year 2035 traffic projections and Highway Performance Measurement System (HPMS) methodology, a future level of service will be determine for up to fifteen (15) key intersections. Those intersections with a projected level of service of D or worse will receive further analysis based upon Highway Capacity Manual (HCM) methodology. This analysis will be done to identify deficiencies and areas where excess capacity may be available.

Roadway segment analysis will be based upon future year 2035 projections using existing roadway capacities and anticipated capacities expanded through identified planned roadway improvements.

Any traffic counts collected by the Consultant which are deemed necessary, as agreed upon between JATSO and the Consultant, for greater accuracy in projecting future turning movements shall be considered additional services and are not a part of this Scope of Services.

Task 5.3 – Project Evaluations

Each project identified as a possible alternative will be evaluated and a separate project data sheet will be prepared. The data sheet will include cost estimates, level of service, VMT and VHT related data.

Task 6 – Transit Analysis

A transit analysis will be conducted to help the Metro Area Paratransit System (MAPS) and the Sunshine Lamp Trolley system to remain major contributors to a balanced transportation system in the Joplin metropolitan area.

Task 6.1 – Review and Incorporate Existing Transit System

A review of information provided by MAPS and Sunshine Lamp Trolley system including the route structure (trolley), major destinations, ridership levels and financial performance will be conducted. The review will include the performance of individual routes for the trolley system, identification of most prevalent areas of origin and destinations for the paratransit system, and an evaluation of fleet vehicles. Such information will be incorporated into the Long Range Plan. Also included will be documentation of transit security procedures, goals, and plans.

Task 6.2 – Incorporate Planned System Changes and Enhancements

Recommendations for system changes and enhancements will be made based on those included in existing transit planning documents and through public and transit stakeholder input.

Task 6.3 – Incorporate Future Budgets and Financial Forecasts

In order to establish financially constrained recommendations for transit improvements, the Consultant will incorporate estimated future budgets and revenue forecasts, provided by the transit agencies, so that the viability of planned enhancements can be shown in the Long Range Plan.

Task 7 – Incorporation of Bicycle – Pedestrian Transportation Plan

This task includes gathering relevant information and documentation of existing bicycle/pedestrian facilities within the metropolitan area as well as incorporating recommendations for future enhancements as included in the Bicycle – Pedestrian Transportation Plan.

Documented information may include:

- Destination points that a bicycle network should serve such as major activity centers, high density residential centers, commercial districts, and employment centers.
- Current condition of existing system elements.
- Opportunities for expanded trail corridors, bike lanes, and shared use facilities, and hybrid facilities.
- Suitability for future bicycle use as a function of street section, traffic volume and context.

Documentation will also include projected financial forecasts to illustrate the viability in funding recommended improvements.

Task 8 – Crash Analysis

The Long Range Transportation Plan Update will include analysis of crash history within the metropolitan area.

Task 8.1 – Incorporation of Existing Crash Analyses

Crash analysis and recommended counter measures will be included from any other available crash/safety analysis studies within the metropolitan area.

Task 8.2 – Identification of High Accident Locations

Information from previous studies and available crash and traffic volume data will be utilized to identify high accident locations based on intersection and segment rates.

Task 8.3 – Recommend Safety Enhancements

Recommendations included in existing studies will be included in the Plan Update. High accident locations not included in existing studies will be identified for recommendation of future detailed crash analysis. Furthermore, high accident locations will be given greater preference when compared with other locations identified in Task 5 with equal capacity deficiencies so that project selection criteria reflects safety priorities for motorized and non-motorized users.

Task 9 – Freight Assessment

The movement of goods and freight through and within the Joplin Metropolitan Area is an important part of the local economy. This task will identify the major truck and rail freight hubs, assess the basic truck routing in the region and consider opportunities to improve the movement of goods and facilitate economic development.

Task 9.1 – Identify Freight Corridors

Existing corridors of interstate, intrastate and regional significance will be identified along with hubs of freight within the region. Recommendations to modify existing truck routes will be made based on connections to other metropolitan areas, industrial and commercial land uses and existing trucking facilities within the region.

Task 10 – Incorporation of Joplin Airport Master Plan

This task will gather relevant information from the Joplin Airport stakeholders and included in the Joplin Airport Master Plan and incorporate recommendations for future improvements related to air passenger and freight as well as ground transportation to and from the airport and associated adjacent land uses.

Task 11 – Environmental Mitigation Activities

The Long Range Plan will include mapping documentation provided by JATSO of existing environmental impact areas for use in determining the potential of such impacts by planned transportation improvements. Discussion of environmental mitigation goals and strategies developed by JATSO will also be documented.

Task 12 – Alternative Development and Evaluation

The alternative evaluation process will be used to examine the transportation system and determine the most cost effective method to accommodate future traffic demand.

Task 12.1 – Goals and Objectives/Evaluation Criteria

The Consultant working with the public, JATSO staff, and regional transportation stakeholders, will develop goals and objectives for the Long Range Transportation Plan Update. The goals and objectives will be similar to those identified in the previous plan with updated information as necessary.

Evaluation criteria will be used to evaluate the various alternatives. The criteria will be identified by the JATSO project advisory team as well as other committees and general public. The criteria will be clearly defined and measurable. Typical criteria includes projected changes in VMT/VHT, construction costs, right-of-way impacts, safety measurements, area of floodplain or impacts to environmental features.

Task 12.2 – Develop Alternatives

Alternatives will be developed which identifies projects that could reasonably be constructed to address future transportation deficiencies.

Task 12.3 – Evaluate Alternatives

The Consultant, working with the JATSO advisory team, will evaluate each alternative and group of alternatives to eliminate those that are too costly, have too great an environmental impact, or have minimal benefit cost ratios. Up to fifteen (15) new projects and/or transit service alternatives will be examined.

Task 12.4 – Develop/Document Performance Measures

The Consultant, working with the JATSO advisory team, will establish and incorporate performance targets to be consistent with those established or in the process of being established by MoDOT and other MPOs throughout the state. The Long Range Transportation Plan will include a description of the performance measures and performance targets used in assessing the performance of the transportation system.

Task 13 – Conceptual Design and Cost Estimates

A transportation plan does not require detailed construction documents or precise identification of right-of-way impacts to each proposed improvement. Sufficient effort, however, is needed to develop accurate order of magnitude cost estimates to be used for the financial determination of feasibility.

Task 13.1 – Project Concept Plans

The consultant will develop a project concept plan for each proposed improvement. These plans will generally be at a scale of 1" = 200' and will include proposed back of curb locations, median type, sidewalk locations, right-of-way requirements, property lines, and proposed traffic control devices. These concept plans will generally be drawn on aerial photography in plan view only.

Task 13.2 – Order of Magnitude Cost Estimates

Order of magnitude cost estimates will be used for each project. These cost estimates will be determined using general criteria for area of pavement, area of bridge deck, volume of embankment, number and type of traffic controls, etc. The unit costs for each component will be approved by the JATSO project advisory team prior to using the information for cost estimating purposes.

Task 14 – Financial Forecast and Project Funding

Available resources will be used to fund programs and projects that support mobility, access, safety, and economic development in and around the Joplin metropolitan area. The Transportation Improvement Program (TIP) will support the maintenance, preservation, and rehabilitation of existing streets and highways and the reconstruction and/or improvement of street and highway segments.

Task 14.1 – Identify Available Funding

The Consultant will obtain from JATSO information regarding funding programs that have been used in the past by agencies within the Metropolitan Planning Organization to fund transportation improvements. These funding sources will be used as a base to compare future funding levels. The Consultant, working with the Missouri Department of Transportation, Missouri Department of Economic Development, the Federal Highway Administration, and the Federal Transit Administration will identify sources of potential transportation funding to be used in the planning process.

Task 14.2 – Prioritize Projects

Working with the JATSO project advisory team, the Consultant will prioritize the projects identified in the alternative development process based upon benefit/cost analysis, economic development opportunities, safety, coordination with other improvement programs, and public input. Funding for the projects will be designated in four (4) phases:

- Study Phase (optional)
- Design Phase
- Right-of-Way Acquisition Phase
- Construction Phase

Refining the projects into these phases will allow the agency having jurisdiction over the project the ability to better schedule improvements and plan for the necessary funding levels.

Task 15 – Reports and Documentation

A project of this magnitude will require rigorous documentation of meetings, telephone conversations and correspondence between the study team, public and various agencies. Documentation of each work item will take place as part of each task. The following Tasks address only the preparation of the draft and final report.

Task 15.1 – Draft Report

Twelve (12) copies of the Draft Transportation Plan Update will be prepared and submitted to JATSO and participating agencies for review and comment. The Consultant will also provide an unbound original set and a link to the electronic file and/or CD containing the report in an electronic format.

Task 15.2 – Final and Executive Summary Reports

Comments received from JATSO and other participating agencies regarding the Draft Report will be incorporated into the Final Report. Twelve (12) copies of the Final Report and twenty-five (25) copies of the Executive Summary Report will be submitted. The Consultant will also provide an unbound original set and CD containing the reports in an electronic format.