

# SHOW LOW COMMUNITY TRANSPORTATION PLAN UPDATE

Task Assignment Response  
November 22, 2017

## Vendor and Task Assignment Information

<b>Task Assignment No. MPD0025-18</b>	<b>Show Low Community Transportation Plan Update</b>
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# INTRODUCTION

This study will prepare a long-range multimodal transportation plan for a study area that encompasses the City of Show Low, Town of Snowflake, Town of Taylor, Town of Pinetop-Lakeside, and the unincorporated areas of southern Navajo and Apache Counties, including the communities of Concho and Vernon.

The purpose of this document is to provide a Work Plan, Cooperative Features, Budget/Price sheet, and DBE documents, in accordance with the Task Assignment.

# PROJECT TEAM

Kimley-Horn and Associates, Inc. will serve as prime consultant. Kimley-Horn is a multidisciplinary consulting firm composed of over 3,000 professionals serving a wide range of clients across many disciplines from more than 80 offices nationwide. Our multidisciplinary experience covers transportation planning and engineering, landscape architecture and urban design, environmental planning and design, and public policy. In each community we work, we strive to understand the values of the community and transform them into a vision that guides the planning process.

Kimley-Horn offers you the resources of a large national firm with the understanding of a small local organization. Understanding the importance of diverse experiences, we apply the skills of professionals with various backgrounds to create the opportunity for visionary thinking and pragmatic implementation. Our proposed team of planners, urban designers, and engineers offer a vast amount of experience preparing multimodal-focused design guidelines for agencies across the country.

**Applied Economics LLC** will provide economic analysis services. Applied Economics is a consulting firm specializing in economic and demographic issues. Our services include economic and fiscal impact assessment, socioeconomic modeling, urban planning, and custom software applications. Based in Phoenix, Arizona, we have clients nationwide, including local governments, school districts, councils of government, and economic development organizations. We have also performed a variety of studies and assessments for utility companies, retailers and shopping center developers, and other large corporations.

**Traffic Research Analysis, Inc.** will provide traffic data collection services. TRA is a skilled, highly-trained, professional traffic counting company that responds to counting projects in a timely manner and/or supplement an agency's existing inventory and personnel. For more than a quarter century, TRA has been committed to providing the highest quality traffic data collection services to city, county, state, and federal government agencies, councils of governments and associations of governments, as well as engineering firms, in California, Arizona and throughout the Western United States. This commitment to quality has been the foundation of TRA's approach to traffic

data collection and has led to its stability, longevity, and reputation for professionalism throughout the traffic counting and traffic engineering industries.

## WORK PLAN

### *Study Objectives*

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Objectives for the Show Low Community Transportation Plan update, based on the Task Assignment and the Scoping teleconference held on November 13, 2017 are:

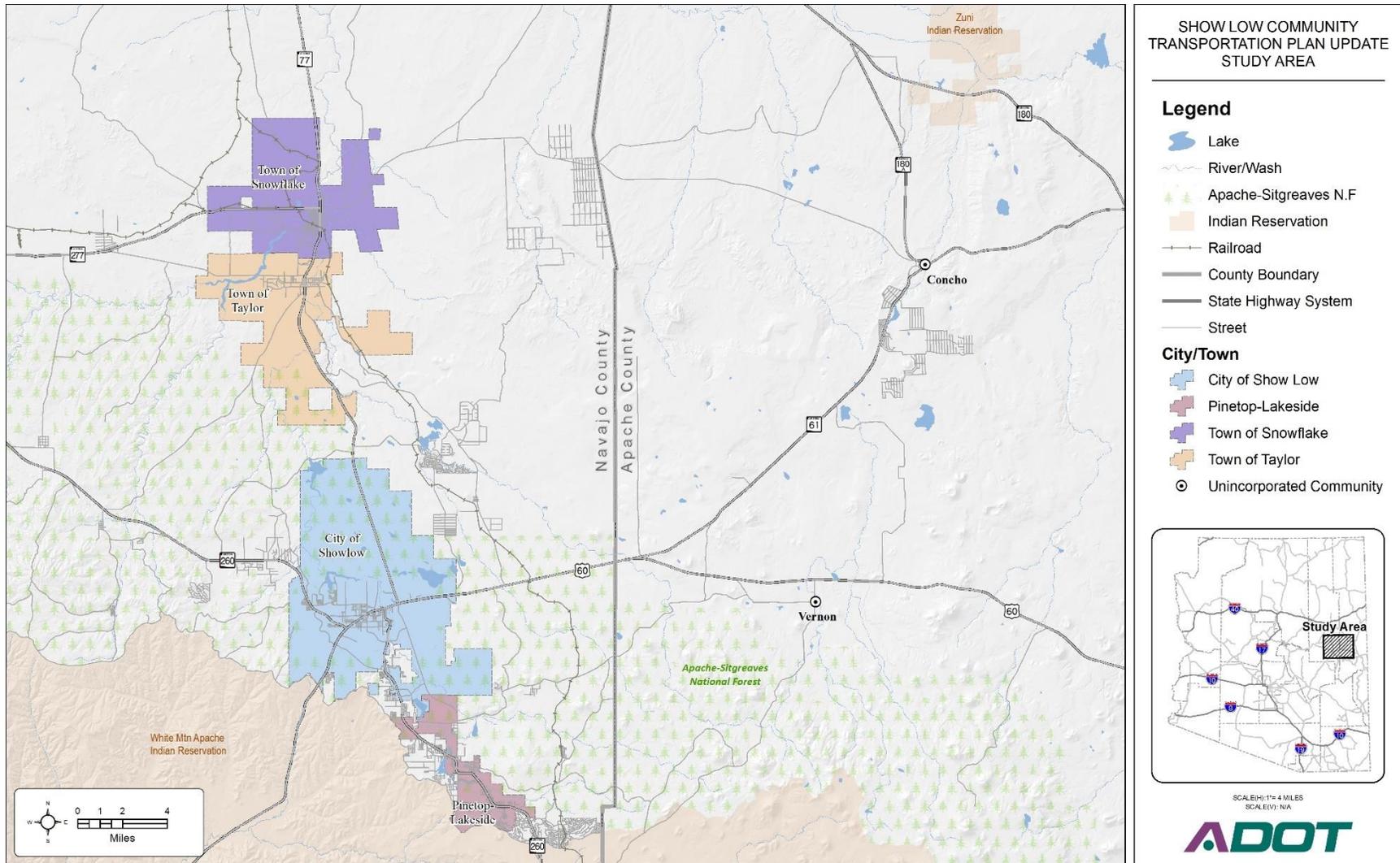
1. Review current and future conditions within the study area. Document known major future developments within the study area. Assess multimodal transportation conditions, including: growth patterns, congestion issues, freight, transit connectivity, bicycle, pedestrian, ITS, and safety.
2. Identify transportation issues and needs based on review of current and future conditions and stakeholder perspectives.
3. Identify and analyze feasible alternatives for improving the roadway network in the study area.
4. Prepare an economic analysis to assist in project justification, support funding applications, and assist in prioritizing projects from an economic development perspective.
5. Recommend high-priority projects for consideration by each stakeholder jurisdiction to include in their respective capital improvement program development, and in the ADOT P2P program. Develop a 20-year phased improvement plan.

### *Study Area*

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This area is referred to as the sub-region in this Work Plan. The study area is illustrated in Figure 1.

**SHOW LOW COMMUNITY TRANSPORTATION PLAN UPDATE**



**Task 1. Project Kickoff Meeting**

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A Kick-off Meeting will be held with project Technical Advisory Committee to introduce the study, and discuss transportation needs.

In conjunction with the project kick-off meeting, a set of stakeholder interviews will be conducted. Stakeholders will be confirmed by TAC members, and are anticipated to include:

- ADOT District staff
- Jurisdiction representatives (TAC members)
- Other jurisdiction staff responsible for streets maintenance
- Public safety - fire and police departments, Arizona Department of Public Safety (DPS)
- School districts transportation staff
- Arizona Commerce Authority (Navajo and Apache County representative)
- Chambers of Commerce / Visitors & Convention Bureaus

The meetings will be organized into a series of meetings over one day to two days. Day 1 will be held on Show Low/Pinetop-Lakeside area, Day 2 in the Snowflake/Taylor area.

KHA staff will attend and present information, prepare all meeting materials, and prepare a meeting summary.

**Work Activities**

- Prepare for and conduct a project kick-off meeting
- Prepare for and conduct project stakeholder meetings
- Prepare a summary of the meeting(s)

**Deliverables**

- Summary of the kick-off meeting(s)

**Task 2. Working Paper 1: Current and Future Conditions**

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This task will compile and assess transportation data and information on existing and future conditions in the study area to identify transportation needs and deficiencies. The deliverable for this task will represent chapters 2 through 5 of the final report (shown in blue at right).

**2.1 Existing Transportation Conditions**

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The existing transportation conditions analysis will

<b>Chapters – Final Report</b>	
1.	Executive Summary
2.	<b>Introduction</b>
3.	<b>Current Conditions</b>
4.	<b>Environmental, Socioeconomic, and Economic Overview</b>
5.	<b>Future Conditions</b>
6.	Evaluation Criteria and Alternatives Analysis
7.	Recommended Plan of Improvements
8.	Public Involvement
9.	Conclusion

identify existing transportation needs and deficiencies in several areas. Key work activities are:

- Review and summarize existing studies and plans – Summarize the status of transportation recommendations that were contained in the 2007 *Southern Navajo/Apache County Sub-Regional Transportation Plan*. Review transportation studies that were prepared since the 2007 study, and summarize these studies.
- Update road characteristics – Prepare information on road characteristics such as number of lanes, traffic control, speed limits, and other characteristics.
- Review traffic count data – Based on information from the scoping teleconference, the City of Show Low has an ongoing traffic count program. KH will work with the City of Show Low and other jurisdictions to identify traffic count needs. The KH team will identify and conduct traffic counts at additional locations where data may be needed to support analysis of identified concerns, up to the limit available within the identified task budget set aside for traffic counts.
- Analyze roadway and traffic data – Evaluate traffic count data to determine current level of service for road segments. Analyze intersection level of service at signalized intersections using Highway Capacity Manual methods for up to 10 key intersections with the study area. Key intersections (up to 10) will be identified through the stakeholder interviews and TAC input.
- Determine the historic growth in traffic volumes on major routes. Seasonal variations in traffic will be analyzed on major routes, since there are peaks during tourism seasons.
- Identification of truck routes – The KH team will identify key truck routes through evaluation of percent trucks, information from stakeholders, and other information.
- Road functional classifications – Document FHWA functional classifications for roadway in the sub-region, and identify potential functional classification upgrades, particularly those that might qualify a roadway for additional funding.
- Pavement condition – KH staff will work with study area jurisdictions to identify available data relating to pavement conditions, and will summarize this data. No new pavement condition studies are assumed as part of this work effort. The KH team will identify paved and unpaved roads in the study area, and protocols, budgets, and processes for chip sealing and paving dirt roads.
- Intelligent Transportation System (ITS) – KH will document existing ITS systems and will evaluate needs for ITS improvements in areas such as signal coordination and traveler information systems.

- Inventory and evaluate crash history – Crash data for the most recent five-year period (2012-2016) will be reviewed and summarized. Safety needs resulting from the analysis will be identified.
- Transit – KH will summarize ridership and statistics of existing study area public transit service (Four Seasons Connection, White Mountain Connection). KH will document transit needs obtained through stakeholder and public input. Needs identification will focus on facility/infrastructure needed to improve comfort, convenience and safety of transit riders. Facility-focused needs (bus stops improvements, pedestrian connectivity to stops, etc.) will be further evaluated in the Show Low Community Transportation Plan Update. Connectivity needs identified in the Show Low Community Transportation Plan will be referred to the NACOG PTS for further analysis and evaluation.
- Non-motorized transportation – Inventory and evaluate needs for pedestrian and bicycle improvements. Map existing sidewalks and bicycle facilities (including areas with wide shoulders) on a GIS map which highlights land uses such as residential areas, community facilities, schools, and other activity centers. The data will be used to identify a logical plan to prioritize needs for connections and crossings and address any deficiencies noted in field reviews or stakeholder meetings.
- Prepare base mapping and graphics – Prepare mapping and graphics relating to existing transportation conditions. The KH team will work with ADOT GIS staff to meet the GIS guidelines and metadata standards contained in the Task Assignment request.

NACOG is initiating the **NACOG Passenger Transportation Study (PTS)**. Phase 1 will prepare a long-term strategy for enhancing passenger transportation services in Coconino, Apache, and Navajo Counties and tribal lands included therein. The PTS will establish a regional transit vision, analyze current and future passenger transportation needs, and prepare recommendations to structure, fund and manage expansions/additions to the passenger transportation network. The PTS will focus on the high-need passenger transportation areas within the region, including those areas with limited or no public, private or non-profit transportation options.

## 2.2 Economic and Demographic Overview

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A brief economic and demographic overview will be prepared for this study area. Demographics will be identified within the entire study area to assist with future Title VI, Environmental Justice, and Limited English Proficiency (LEP) compliance.

As part of the assessment of current and future conditions, an overview of economic conditions will be prepared for study area region as compared to the state. Economic data is generally available at either the city or county level. We will provide population data at the city level, but the other economic data will be presented for Navajo County in order to encompass the entire region.

Understanding historic and projected demographic and economic trends in the study area region will provide context to evaluate the potential impact of transportation improvements on economic development in the study area. The economic overview will include historic data as well as projections, when available. This would allow study area jurisdictions to gauge their performance relative to the state and identify both strengths and potential issues in the local economy that guide the way that transportation improvements can be used to support economic development. The economic overview would include the information below.

- Population trends and demographic characteristics such as age and educational attainment
- Labor force and unemployment
- Industry mix and job growth including location quotients to identify local industry specializations
- Income and wage growth
- Economic conditions – taxable sales and construction activity

### *2.3 Future Conditions*

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This subtask will develop future transportation conditions for a 20-year planning horizon. Future transportation needs will be identified. This subtask involves the following activities:

- Analyze historic population growth in the study area. Analyze historic traffic growth for major roads in the study area. Review seasonal variation in traffic to account for tourism increases.
- Identify future employment centers and areas of residential growth based on stakeholder and TAC input, and a review of general plans and other planning documents in the region. Perform trip generation and distribution to account for anticipated growth in these areas.
- Based on traffic growth as well as stakeholder and jurisdiction input on transportation needs and future development, the KH will forecast traffic volumes for 5, 10, and 20-year periods.
- Calculate future levels of service, for major highways/streets (arterials, major collectors) using Highway Capacity Manual techniques.
- Identify multimodal infrastructure deficiencies for roadways and intersections for five-, 10-, and 20-year periods.

#### *Work Activities*

- Conduct traffic counts, as needed (per available budget allocation)
- Conduct existing and future conditions analysis
- Prepare demographic and economic overview

- Prepare and distribute Draft Working Paper No. 1 (Chapters 1-5) to the ADOT PM, and TAC members. Comments on Draft Working Paper 1 will be addressed in the Draft Final Report.

#### *Deliverables*

- Draft and Final Working Paper No. 1

### ***Task 3. Public Outreach – Phase 1***

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The purpose of the first phase of public outreach is to obtain input on transportation needs. During the scoping meeting for this project, TAC members requested that a survey be conducted in lieu of a public meeting for the initial phase of the public involvement due to low turnout for public meetings. It is anticipated that the survey will explain the purpose of the study, and ask a series of questions to identify transportation needs. Another aspect of the survey can ask respondents their views about priorities for transportation improvements. A draft survey will be prepared for review and comment by the TAC members.

The survey can be posted online, with hard copies available at selected locations, such as government offices, or libraries. It is anticipated that the survey will be advertised via local TV Channel 54, inserts in water bills, press releases, and announcements to City Council.

#### *Work Activities*

- Develop public outreach survey
- Advertise the survey
- Summarize the findings of the survey

#### *Deliverables*

- Summary of survey results

### ***Task 4. Working Paper 2: Plan of Improvements***

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Based on the transportation needs identified in Task 2, develop a plan of improvements to address the needs. In addition, applicable transit improvements and recommendations, as identified in the NACOG PTS, will be incorporated into the recommended improvements.

KH will prepare planning level costs for each proposed project. KH will develop evaluation criteria to evaluate the projects, in coordination with the ADOT Project Manager and TAC, and apply the criteria to identify short, mid-, and long term projects. Examples of evaluation criteria are:

- Cost – Planning level costs

- Safety – This is based on whether the project responds to concerns identified in the safety analysis and through discussions with stakeholders and TAC members
- Economic evaluation – For the top ten to fifteen projects, we will identify the area of impact (corridor or a specific site, depending on the type of proposed transportation improvement), considering existing land use, vacant land availability, existing building values and types of tenants, land values and existing transportation infrastructure. Based on the general plan land use for vacant parcels in the area of impact, the existing development in the area and the potential for redevelopment, we will convert acres by land use into building area and corresponding employment that could be supported in the future as a result of the improvement.
- Funding sources and availability

<b><u>Chapters – Final Report</u></b>	
1.	Executive Summary
2.	Introduction
3.	Current Conditions
4.	Environmental, Socioeconomic, and Economic Overview
5.	Future Conditions
<b>6.</b>	<b>Evaluation Criteria and Alternatives Analysis</b>
7.	Recommended Plan of Improvements
8.	Public Involvement
9.	Conclusion

The results of this task will be documented in Draft Working Paper 2 and will be Chapter 6 of the final report (shown in red at right).

### Work Activities

- Develop projects to address transportation needs. Identify planning level cost estimates for each project.
- Develop evaluation criteria based on input and concurrence from the TAC.
- Apply these factors to each project and rank the projects.
- Develop a list of recommended short, mid-, and long term projects based on the evaluation and TAC input.
- For the top 10 to 15 projects, conduct economic evaluation of the potential impacts of the improvement.
- Identify potential funding sources for each project.

### Deliverables

- Draft and Final Working Paper No. 2

## ***Task 5. Draft Final Report***

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A draft final report will be prepared that summarizes the study findings and recommendations of the study. The draft final report will include an executive summary (Chapter 1), Chapters 2-7, and address previous comments made on Working Papers 1 and 2. The executive summary will include a recommended project list with short, mid, and long-term recommendations for the sub-region. Funding implementation

recommendations will be included. All ADOT Project Manager and TAC comments from Working Papers 1 and 2 will be addressed in the draft final report and documented in a comment matrix form.

### Work Activities

- Prepare a Draft Final Report and distribute for review
- Document comments, responses, and edits from Working Papers 1 and 2 into a comment response form

### Deliverables

- Draft Final Report
- Comment Response Form

## ***Task 6. Public Outreach, Phase 2***

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The second phase of public outreach will present the recommended plan for improvements and describe the study process. The public outreach will be conducted at a meeting to be determined by the ADOT Project Manager and jurisdiction staff. The public meeting could potentially be a presentation to NACOG, or a City Council meeting, dependent on direction from the ADOT Project Manager and TAC.

### Work Activities

- Prepare and distribute letters, newspaper ads, and flyers (and/or other means of outreach) to notify the public, business owners, and other stakeholders of the public meeting (1/4-mile buffer around corridor limits)
- All notifications and materials will be reviewed by the ADOT Project Manager and the TAC
- Coordinate with ADOT Communications to update the ADOT website and distribute an email notification
- Prepare visual aid materials and a PowerPoint presentation
- Attend the meeting, present information (as requested), assist fielding questions, and record any public comments during the public meeting

### Deliverables

- Meeting advertisements as noted above, meeting display and presentation materials
- Meeting notes and summary

## ***Task 7. Public Involvement Summary Report***

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A public involvement summary report will be prepared which summarizes the survey results and will summarize all comments made by the public and stakeholders during the Public Meeting(s) and other comments received throughout the study. Responses to all public comments received will be included in this report. This

### **Chapters – Final Report**

1. Executive Summary
2. Introduction
3. Current Conditions
4. Environmental, Socioeconomic, and Economic Overview
5. Future Conditions
6. Evaluation Criteria and Alternatives Analysis
7. Recommended Plan of Improvements
- 8. Public Involvement**
9. Conclusion

report will be Chapter 8 of the final report (shown in purple at right). The draft public involvement summary will be finalized as part of the final report preparation.

Work Activities

- Prepare a Draft Public Involvement Summary Report (Chapter 8 of the final report)

Deliverables

- Draft Public Involvement Summary Report

**Task 8. Final Report**

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A final report will be prepared that summarizes all the findings documented in the above tasks, as well as a Conclusions chapter (Chapter 9). Kimley-Horn will address all review comments received following the draft final report and public involvement summary report submittal, and will document responses in a comment matrix. The final report will be submitted to the ADOT Project Manager and to the TAC members for review.

Once completed, it is anticipated that 20 hard copies of the Final Report and 20 DVD copies will be printed.

Work Activities

- Prepare a Final Report

Deliverables

- Final Report

**Task 9. GIS Data and Study Closeout File**

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GIS data used during the study, as well as required GIS data, will be provided in an electronic study close-out file via ShareFile or thumb drive. Data will be in the format of a geodatabase containing all spatial and related data used in the Study. ADOT’s Planning Study GIS Template will be filled out for studies which recommend projects on the State Highway System only. Additional copies will be submitted to representatives from the TAC upon request.

**Task 10. Coordination**

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This task includes coordination between the Kimley-Horn Project Manager (PM) and multiple ADOT, TAC, and stakeholder groups as described below. Constructive coordination and active communication will best identify the

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|---|
| <p><b>TAC Representatives</b></p> <ul style="list-style-type: none"> <li>• ADOT Multimodal Planning Division</li> <li>• City of Show Low</li> <li>• City of Taylor</li> <li>• Town of Pinetop-Lakeside</li> <li>• Navajo County</li> <li>• Apache County</li> <li>• Northern Arizona Council of Governments (NACOG)</li> <li>• ADOT Northeast District</li> </ul> |
|---|

process, context, needs, and solutions for the study area.

### TAC Coordination

Consistent with direction from the Project Scoping meeting it anticipated that coordination will involve:

- Bi-Monthly Teleconference Progress Meetings (4 meetings anticipated) When meetings are held via teleconference, a “share my screen” technology will be used to present information. Informal coordination will also occur regularly. Kimley-Horn will prepare meeting agendas, exhibits, and notes.
- Three on-location Progress Meetings held at key project milestones, such as submission of working papers and the draft final report.

### Work Activities

- Review TAC roster
- Prepare for, attend, and participate in coordination meetings described above.

### Deliverables

- Meeting agendas, summaries, hand-outs, and presentation materials

### Project Schedule

The proposed project schedule is included in the Appendix

## PRICE-BUDGET/PRICE SHEET

The cost table on the following page shows the number of hours each team member is projected to spend on each work task, their associated labor classification and billing rates, direct costs per ADOT Contract Number ADOT17-17-171963 and a breakdown of study products by percentage of the Study’s overall cost.

The project budget/price sheet reflects the costs expected to be invoiced to ADOT in each calendar quarter (Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec) beginning on the estimated proceed date of December 15, 2017 through the expected completion date of November 30, 2018.

## COOPERATIVE FEATURES

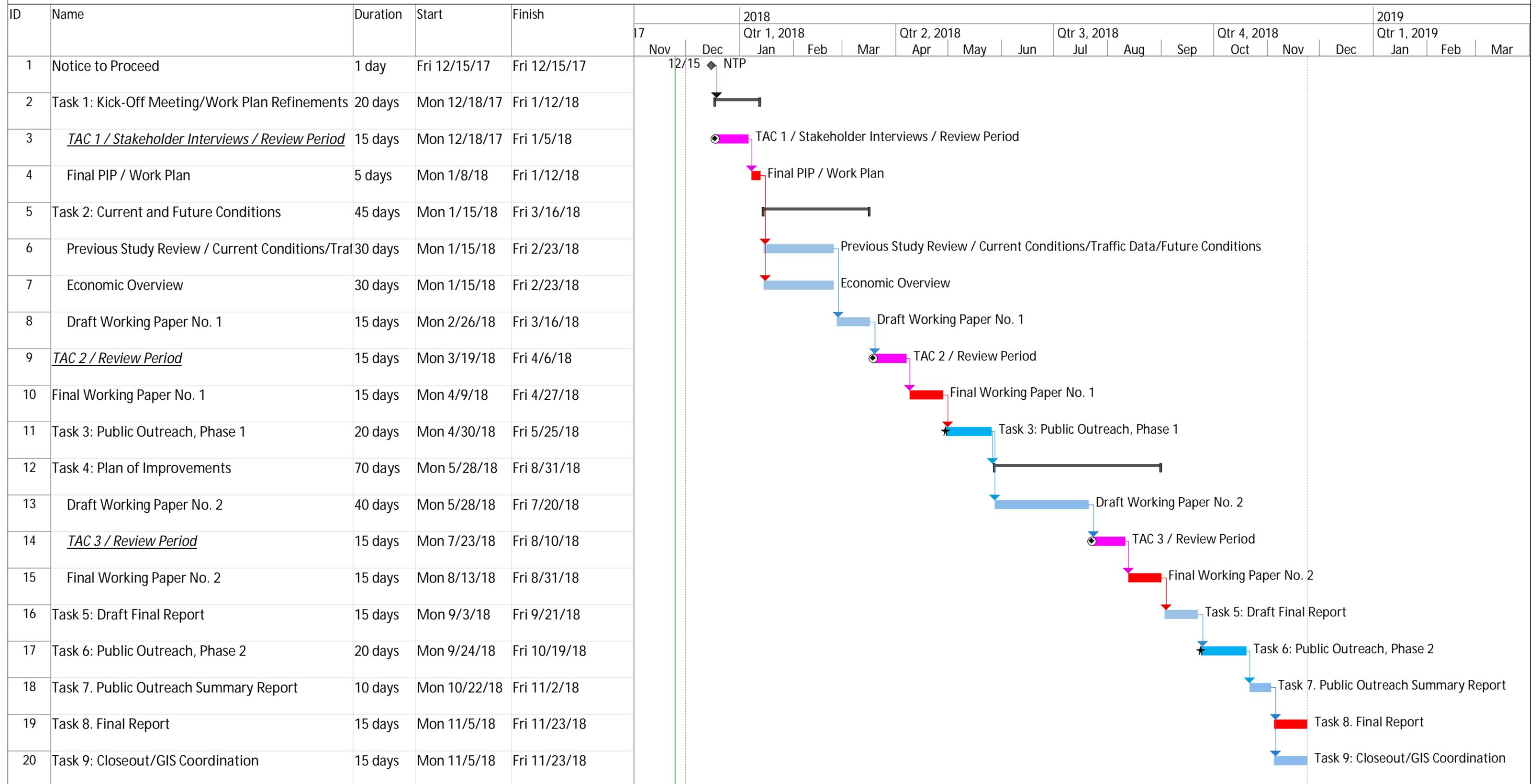
Cooperative features (Letter of Commitment from Applied Economics and Field Data Services) is included in the Appendix.

## DISADVANTAGED BUSINESS ENTERPRISE (DBE) DOCUMENTS

DBE required documents are included in the Appendix.

# APPENDIX

Show Low Community Transportation Plan Update  
Project Schedule, Updated: November 25, 2017



Project: Show Low Schedule V1 Date: Sat 11/25/17	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
	Summary		Inactive Task		Duration-only		Finish-only			