

EXHIBIT A - Approach to the Scope of Work

The following approach to the Scope of Work is based upon Alta Planning + Design's understanding of NHDOT's needs and our experience with successfully completing other statewide pedestrian and bicycle plans and economic-impact studies.

Task 1. Public Engagement

We propose the following tasks to ensure a broad array of input from NHDOT staff, the Complete Streets Advisory Committee (CSAC), Regional Planning Commission staff/committees, key stakeholders, advocacy groups and the general public. The core of our approach is to facilitate community workshops in all Executive Council Districts, while at the same time providing additional opportunities using our "meeting in a box" concept and through a variety of electronic methods.

Task 1.1 – Project Advisory Committee Meetings

Alta's Project Manager will lead regular meetings with the NHDOT's appointed Project Advisory Committee (PAC), which likely overlaps with the CSAC. In advance of each meeting, Alta will prepare a Project Status Report that identifies the work completed in the past 1-2 months and to be completed in the following month. The meetings will be held every month or every other month (up to nine meetings maximum) and are intended to provide the opportunity for committee members to 1) review draft materials, 2) prepare for public meetings and 3) provide input at key inflection points in the roughly 12 month-long planning process. The initial kick-off meeting is intended to introduce key members of the Alta team and to ensure a full understanding of the roles of NHDOT staff, PAC members and the consultant team. The agenda will include a refinement of the planning project's approach, scope of work and schedule. We will also identify the available data and data needs, along with a round-robin exercise to better-understand committee members' vision and goals for walking and on-road bicycling in the Granite State.

Task 1.2 – Stakeholder Meetings

The Alta team will facilitate meetings with a variety of stakeholders, including the CSAC, Transportation Advisory Committees (TAC) from all nine RPC's, and statewide and regional advocacy groups. **Task 1.2 is explained in more detail in Task 4.**

Task 1.3 – Statewide Public Meetings

The Alta team will facilitate six (6) public meetings for this project. This includes one evening meeting in each of the five Executive Council Districts, including: Lincoln (D-1), Keene (D-2), Portsmouth (D-3), Manchester (D-4) and Nashua (D-5). These five meetings will be held at roughly the mid-point of the planning effort and within a 2-3 week period. At these meetings, the Alta team will present an overview of the planning effort, state the plan's goals, summarize the gap analysis and assessment of current policies and programs, and solicit community input. The input will help inform the policy, project and program recommendations in Tasks 2 and 3. The proposed sixth public meeting will be a final presentation of the plan's draft recommendations, likely at NHDOT headquarters in Concord. To increase participation and input at the final meeting in Concord, Alta can set up the meeting in a webinar format to encourage participation from the general public throughout the state. For all meetings, the locations, agenda and webinar link (for meeting #6 only) will be posted to the project webpage at least two weeks in advance of the meeting.

Task 1.4 – Public Meeting in a Box

To facilitate additional input and participation in all corners of NH, we will develop a “meeting in a box” kit that can be used by local municipalities and/or advocates to solicit additional feedback beyond the six listed in Task 1.3. The kit will include electronic copies of meeting flyers, maps, input prompts and other handout materials for use at the public meeting site, along with a slide deck that will be tailored for the individual community. We will promote the “meeting in a box” concept to the RPC’s and provide any necessary input or training at their TAC meetings, described in Task 4.2. It will be the expectation that local municipal or RPC staff will produce written meeting notes and provide them to NHDOT and the Alta team.

Task 1.5 – Electronic-based Community Input

The Alta team’s electronic-based community input approach will include:

- **Project website:** Alta will develop the project website as a stand-alone site with a separate, and easy-to-remember, URL (e.g.: www.nhwalkbikeplan.org) that is purchased by Alta and held for a two-year period. The page will be linked to NHDOT’s web site and promoted by the agency. It will feature a “comment here” button, include a calendar of upcoming events, and serve as a repository of publicly accessible draft materials (e.g. slide presentations from public meetings, maps and draft technical memoranda). Alta will design the web site’s architecture and develop its content (written materials and graphics) and seek approval from NHDOT before the site is made available to the public.
- **Online survey and input map:** We will include a link to an on-line survey that queries opinions about statewide and regional walking and bicycling concerns. The project web site will also include an on-line mapping input tool to collect public feedback on issues, obstacles, opportunities and preferred walking and on-road bicycling routes across the state. Alta’s online input map will allow users to add route and point-based comments and view other people’s comments in real time. Results from both the survey and on-line input map will be used to inform the team’s analysis and planning efforts.
- **Social media strategy:** Our strategy incorporates a project Facebook page and Twitter handle (for meeting announcements and links to materials and blogs), along with an Instagram account. For the latter, we will encourage residents to post photographs of critical problem areas in their community and/or ped/bike-related elements they like from elsewhere to their accounts and tag them with “@nhwalkbikeplan.” Alta will review photographs and other input in order to learn more about problem areas across NH and to help determine where to focus gap analysis and connectivity recommendations.

Task 1 Deliverables: Agendas and meeting minutes for all PAC, project web site, stakeholder and public meetings; graphic summaries of feedback collected through the online survey and input map (likely to be placed in the plan’s appendix)

Task 2. Existing Conditions Assessment

Task 2.1 – Data Collection and Base Mapping

Using the state’s GIS data, along with field work and on-line map programs, the Alta team will inventory and map the current network of shared use paths, along with pedestrian and bicycle facilities along state highways and other local arterial/collector routes. Besides on-line investigations, field work may include half-day windshield tours of key roadway corridors to be completed in conjunction with the Alta team’s trips to the various regions of the state to attend the RPC meetings described in Task 4.2. To supplement the shapefiles showing existing facilities, we will reach out to NHDOT and representatives from the nine RPCs to become aware of relevant projects under construction, currently funded, or in the planning stages but did not make the cut during the GACIT process. Existing Conditions base maps will be developed and submitted to NHDOT for review and approval. NHDOT will provide one set of comments/edits on the maps, and Alta will revise the map(s) to address those

edits. Additional changes to the base maps will only be made if to reflect the addition of any new large-scale projects that are unexpectedly approved by the state or federal government during the course of this project.

Task 2.2 – Gap Analysis

Based on the existing conditions inventory of shared use paths and pedestrian/bicycle facilities described above, the Alta team will conduct a gap analysis. Through a mix of statewide and inset maps, we will illustrate gaps in the shared use path network, and along state highways and key roadways that hamper walking and bicycling between communities (i.e. state roadways or primary arterial roads that run within municipal boundaries; local streets and collector roadways will not be included in the team’s analysis). Each of the individual gaps will be mapped and placed into a table that describes characteristics related to the surrounding context, length of corridor, lane configuration and width, presence of shoulder or parking, traffic volume/speed, mix of heavy vehicles and pavement quality, if known. The table can also indicate whether the designated gap is within or adjacent to areas with high levels of poverty and/or with many non-English speaking households. Both the technical and equity-related characteristics will be used subsequently to prioritize the recommendations.

Task 2 Deliverable: Technical Memorandum #1 which includes an assessment of existing conditions and features base maps with the state’s shared use paths, key pedestrian and bicycle infrastructure and the key gaps that reduce connectivity for walkers and cyclists.

Task 3. Summary of Policies and Programs

Task 3.1 – Analysis of Policies and Project Development Process

Team member RSG has deep experience with NHDOT’s current pedestrian/bicycle-accommodation policies and project development process and is well-situated to perform a critical analysis and to suggest revisions. The revisions will be intended to improve efficiency and to better incorporate pedestrian and bicycle-related design elements and safety features into a given roadway or bridge project. Suggested revisions will also ensure consistency with current and future FHWA guidelines, including an evaluation of NHDOT staffing and funding so that project review meets existing and future demand for transportation facilities.

Task 3.2 – Four E’s Programs for Walking and Bicycling

The Alta team will also review the state’s encouragement, education, enforcement and evaluation programs (the four, non-engineering “E’s”) and through input from NHDOT, stakeholders and others, determine their efficacy. After developing a compendium of the four E’s programs designed to induce more walking and bicycling in New Hampshire, we will also develop a table of Best Practices from other state DOT’s and pedestrian and bicycle-friendly cities. After coordination with NHDOT staff and the PAC, we will develop a list of changes to existing programs and preferred new walking and bicycling programs.

Task 3 Deliverable: Technical Memorandum #2 that includes an analysis of current policies and programs to increase walking and bicycling, and recommendations related to improvements to NHDOT’s project development process.

Task 4. Transportation Stakeholder Meetings

Task 4.1 – NHDOT Complete Streets Advisory Committee (CSAC)

We anticipate that the Project Advisory Committee (PAC) appointed to oversee this planning effort will overlap significantly with the CSAC, or perhaps be one-in-the same. In either case, we propose to meet with the PAC and/or the CSAC monthly or every-other-month for the duration of the project (see Task 1.1 for additional detail).

Task 4.2 – RPC Transportation Advisory Committee and Advocate Meetings

The Alta team places high value in understanding the opportunities and challenges of walking and bicycling in all regions of the state not only from the general public, but from advocates and planning/engineering professionals as well. As such, we will facilitate meetings with the Transportation Advisory Committees (TAC) from all nine RPC's, along with statewide and regional advocacy groups. These meetings will allow us to solicit feedback on the direction of the statewide planning project and to better-understand current efforts to plan for, and promote, walking and bicycling in all regions. At least one member of the Alta team will attend the nine TAC meetings in person, with one or two more connecting by teleconference call. In order to save on travel costs and to make for a more coordinated and lively discussion, we will work with the RPC's to invite key advocates and other stakeholders who are not already part of their respective regional TAC.

Task 4 Deliverables: For all Task 4 meetings, we will provide a meeting agenda, relevant handouts and will submit meeting minutes to NHDOT.

Task 5. Performance Measures and Network Recommendations

Task 5.1 – Bicycle Level of Traffic Stress Analysis

Our team understands that the quality of walking and on-road bicycling facilities has a strong impact on usage. The safer and more comfortable people feel, the more likely they are to walk and bike. Alta will use existing conditions data to complete a Bicycle Level of Traffic Stress (BLTS) analysis to assess the state's current progress towards an on-road bicycling network for a wide variety of ages and abilities. Our methods are adapted from the 2012 Mineta Transportation Institute (MTI) Report 11-19: *Low-Stress Bicycling and Network Connectivity*. The approach outlined in the MTI report uses roadway network data—including posted speed limit, the number of travel lanes, and the presence and character of bikeways—as a proxy for bicyclist comfort level. Road segments will be classified into one of four levels of traffic stress based on these factors, with BLTS 1 being the most tolerable for novice riders and children and BLTS 4 assigned to roads in which only experienced and highly confident bicyclists are comfortable riding on. Through this analysis, we will identify clusters of low-scoring BLTS roadways that will ultimately form the backbone of the “all ages and abilities” network. We will also supplement MTI's methods with one developed by Oregon DOT which is appropriate for more rural contexts. Combined, the resulting analysis will provide a comprehensive and context sensitive assessment of roadway conditions throughout New Hampshire.

In conjunction with the BLTS, we will also conduct a pedestrian/bicycle safety analysis that springs from the mapping of high-crash frequency intersections and corridors. The analysis will identify common crash profiles within the state, and the roadway contexts in which they most frequently occur, providing insight into the factors associated with crashes. Based on the analysis, we will recommend appropriate safety countermeasures (both engineering and enforcement solutions).

Task 5.2 – Performance Measure Recommendations

Our team will identify key performance measures and prioritization criteria that best help the state meet its goals for ped/bicycle connectivity, safety and mode share. We will follow best practices as described in FHWA's *Guidebook for Developing Pedestrian and Bicycle Performance Measures*, as well as best practices from other states. Example measures that may be considered for the Pedestrian and Bicycle Transportation Plan could include:

- Percent of resident population within walking or bicycling distance to a rail trail or greenway
- Reduction in annual crashes involving walkers or bicyclists per capita
- Changes to walk or bicycle mode share over time
- Number of miles of the state's shared use path network or miles of bike lanes
- Increases in the number of participants in bicycling or running events

Task 5.3 – Evaluation Criteria and Recommended Bicycle Network

In order to evaluate the various policy, program and project recommendations for the plan, we will work with NHDOT staff and the PAC to develop evaluation criteria. The criteria will build from the state and community's vision and goals developed early in the process, and will likely include: need/demand for facility, safety impact, connection to other sidewalks/bikeways, promotes diversity of user groups, linkage to key destinations, community support, cost, ease of implementation and potentially others. These criteria will be used to evaluate, score and rank pedestrian and bicycle facility recommendations that will arise from the Task 2.2 gap analysis. These project recommendations will include a mix of sidewalks, on-street bike facilities, shared use paths and bridge improvements in order to enhance connectivity between communities and to key destinations such as schools, parks, commercial areas and public transit stops and routes.

Task 5 Deliverables: Technical Memorandum #3 that includes a summary of Alta's BLTS analysis and maps, the safety analysis and conclusions and performance measure recommendations. The memo will also include a detailed map of the connectivity recommendations and an evaluation table to help with prioritization.

Task 6. Economic Impact Analysis

The Alta team will illustrate the value of New Hampshire's non-motorized transportation system by estimating the infrastructure's ability to 1) attract jobs, tax revenue, and tourist spending; 2) support bicycle and pedestrian-oriented businesses; 3) increase the value of adjacent properties; and 4) generate transportation, health, environmental, and safety benefits to users. Illustrating these benefits will foster a deeper understanding among the state's residents, elected officials, and public agencies of the contributions that existing and future investments in non-motorized transportation provide to local communities and the state's economy. The analysis will be divided into five elements:

- **Economic Impacts of Capital Investment, Operations and Maintenance (O&M).** Capital and O&M investments in non-motorized transportation contribute to the state's economy through labor income, purchase of related goods and services (i.e. concrete, asphalt, design and engineering services, etc.), and the downstream impacts associated with these expenditures. For example, income paid to workers is re-spent in the form of purchases for food, clothing, housing, entertainment, and other discretionary spending. Led by EDR, the team will measure and translate these impacts into permanent and temporary jobs, business sales, and tax revenue.
- **Expenditures on Bicycle- and Pedestrian-oriented Businesses.** To fully take advantage of the state's shared use path system and on-road bicycle routes requires appropriate equipment, supplies, and services, such as tires, shoes, snacks, and repairs. To quantify the economic contributions provided by local shared use path users (and visitors to the state's Complete Streets communities) to bicycle and pedestrian-oriented businesses, we will leverage EDR's Info-group database license and up to six supporting interviews to document spending by detailed industry classifications of New Hampshire businesses.
- **Tourism Impacts.** In addition to local use, the Granite State's shared use paths, scenic roadways and Complete Streets communities attract a substantial number of bicycling visitors, who spend money at restaurants, hotels, and other businesses. This helps to support tourism-related jobs across the state. Our team will survey event participants, on-road bicycle riders, and visitors to the state's most walkable and bikable communities to better understand the local and non-local spending patterns. The survey responses will be benchmarked with existing spending profiles from the NH Department of Business and Economic Affairs, Division of Travel and Tourism.

- **Benefits of Non-Motorized Travel (Travel Cost Savings, Health, Environment, Safety).** Using Alta’s customized Active Transportation Impact Model, we will analyze the impacts of non-motorized transportation on *transportation expenditures* (e.g., household, congestion, and roadway maintenance), *residents’ health* (e.g., physical activity levels, risk of disease, and healthcare costs), *environmental pollution* (e.g., CO₂ and criteria pollutant emissions), and *traffic safety* (e.g., risk of collision and injury). The foundation for the analysis will be sketch-level bicycle and pedestrian demand estimates from available counts, household travel survey, and ACS data. The resulting impacts will be quantified in monetary terms and compared to existing transportation, health, environmental, and safety needs.
- **Property Values.** The general relationship between a shared use path or separated bicycle lane and adjacent property values is well-documented in recent academic journal articles. To better understand this effect in New Hampshire, we propose conducting 20 informal interviews with real-estate agents, brokers, and assessors across three municipalities to be determined by NHDOT. Consolidated responses will be used to establish the “premium” associated with the proximity of residential properties to premium walk/bike infrastructure. Interviewees will be asked to identify specific examples of sales that include a price premium (in % or dollar value terms) for proximity to shared use paths.

(Note: The Alta team will use the economic modeling software IMPLAN to quantify the primary and secondary impacts of non-motorized transportation. The IMPLAN economic model estimates the “multiplier effects” of additional economic activity associated with supplier purchases and employee spending. Members of the Alta team are nationally recognized experts at applying the IMPLAN model, which is the most widely-used economic impact analysis package in the U.S. The team’s budget includes the purchase of IMPLAN’s proprietary database and associated software needed to conduct the analysis of economic impact of tourist spending.)

Task 6 Deliverables: Technical memorandum #4 that summarizes the economic impact analysis and potential benefits of enhanced walking and bicycling infrastructure.

Task 7. Walking and Bicycling in the Granite State Video

The Alta team will develop an approximately ten-minute video intended to explain the benefits that an improved environment for walking and on-road bicycling could have on the state. The outline is likely to include, but not limited to:

- interviews with New Hampshire public officials and walking/bicycling/trail advocates
- footage from some of the statewide public meetings
- commentary from experts in the mobility, environmental or public health fields
- animations intend to display key statistics related to the benefits of walking and bicycling, particularly related to economic development and property values
- footage from communities in NH and throughout North America that provide examples of positive economic and social impact of creating a more walkable/bikable community (e.g. downtown Portsmouth, Keene’s path system, Cambridge MA or Madison WI)

In order to capture a wider range of audiences and those with limited patience or time, we will also develop a 60-90 second abridged version intended for social media posts and/or for those less interested in watching the full-length “feature”. For either version, the team will aim for maximum impact, to create a short film that helps community members, stakeholders and decision makers understand the importance of walking and bicycling and perhaps inspire some level of action: from the individual—motivating someone to walk to work—to the

collective—encouraging a business to install indoor bike parking—and to the institutional—helping convince a Mayor to support a complete streets reconstruction project.

Task 7 Deliverables: Ten-minute feature video and abridged version that highlights the varied benefits of improved conditions for walking and bicycling in New Hampshire

Task 8. Statewide Walking and Bicycling Plan Report

With the completion of Tasks 1-7, the Alta team will merge the four Technical Memoranda into a single Statewide Pedestrian and Bicycle Transportation Plan report. The professional-quality report will be informed by our team's experience developing pedestrian and bicycle plans for cities, regions and in more than ten states. The report will emphasize the role that NHDOT and its partner state and regional agencies can do to promote a more-accessible state highway and local network of key collector and arterial roads. The plan will be intended for use by a multitude of key stakeholders including state/local planners, NHDOT project engineers, contractors, maintenance personnel and community and advocacy groups to help plan, construct and maintain a statewide transportation network that encourages walking and bicycling. To facilitate this, the Alta team will provide design guidelines for walking and on-road bicycling infrastructure based on the commonly-accepted manuals, our team's collective experience and best practices from elsewhere.

Task 8 Deliverables: Draft and final versions of the Statewide Pedestrian and Bicycle Transportation Plan report. NHDOT's Project Manager or the PAC Chair will be responsible for consolidating comments, from which Alta will provide up to two (2) revised versions of the Draft before issuing an electronic version of the final report and executive summary with accompanying maps, diagrams and appendices.