

Exhibit A
Hooksett Route 3A/Hackett Hill Road and Main Street Intersections Project
Engineering Study Phase
Scope of Work and Task Descriptions
August 8, 2023

The objective of the NH Route 3A (NH 3A)/Hackett Hill Road and NH 3A/Main Street Intersections Project is to improve safety and capacity for all users at these important intersections. The project includes replacement of the existing culvert that carries NH 3A over Brickyard Brook near the Hackett Hill intersection.

The following scope of work outlines the necessary tasks to be undertaken by McFarland-Johnson (MJ) and its sub-consultants to complete Phase 1 – Engineering Study for the project. The goal of the Engineering Study Phase is to reach consensus on proposed project solutions. The sub-phases are as follows with the details on the following pages:

Phase 1 – Engineering Study

- 1A Information Gathering/Base Maps
- 1B Detailed Survey
- 1C Resource Identification
- 1D Project Definition
- 1E Alternatives Development
- 1F Brickyard Brook Structure Study
- 1G Abstracting
- 1H Public Involvement
- 1J Utility Coordination
- 1K NHDOT Estimate Review Committee (ERC)

Phase 1 – Engineering Study

Phase 1A – Information Gathering/Base Maps

MJ will review previous studies and collect available data for the project area. This will include the following:

- As Built and survey plans
- Engineering Reports
- Hydraulic Analysis
- Traffic count data
- Existing utility information
- Crash history on project area roadways
- Property deeds
- Environmental Studies/Permits
- Resource agency correspondence

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Traffic Counts - Traffic count data will be required. Peak hour intersection turning movement counts will be conducted at the following intersections within the project study area:

- Hackett Hill Road / NH 3A
- Main Street / NH 3A
- Riverside Street/ NH 3A
- Main Street / Riverside Street
- Main Street / College Park Drive
- College Park Road / Hooksett Road (US Route 3)
- Hackett Hill Road / Hooksett Toll Plaza (Interstate 93 Exit 11)

Counts at all intersections listed above will be conducted during the following time periods:

- Weekday AM peak hour (7:00 AM to 9:00AM)
- Weekday PM peak hour (3:00 PM to 6:00 PM)
- Saturday Midday peak hour (11:00 AM to 2:00 PM)

Counts will include vehicle classification, pedestrians, and bicycles. Counts will be collected using video detection systems.

Automatic traffic recorders will be utilized to collect seven (7) consecutive days of 24-hour traffic at the following locations:

- NH 3A approximately 500 feet south of Hackett Hill Road
- NH 3A between Hackett Hill Road and Riverside Street
- Main Street between NH 3A and Riverside Street
- Hackett Hill Road approximately 500 feet west of NH 3A

Automatic traffic recorders will be radar units capable of reporting speed and volume with classification based on vehicle length.

Crash History – Crash data will be requested for a minimum of the most recent three (3) year period of crash data records from the Town of Hooksett Police Department. The request will include the crash data for NH 3A from 0.1 miles south of the Hackett Hill intersection to approximately 0.1 miles north of the intersection with Main Street. Crash data at or near the intersections within the project study area listed above will also be requested.

It is assumed the Town of Hooksett police department will provide the crash information.

Phase 1B – Detailed Survey

Detailed survey for the project will be conducted by our subconsultant Doucet Survey, LLC (Doucet). The project will be focused on two separate intersections. The intersection of NH 3A and Hackett Hill Road is approximately 4,000 linear feet in length and will encompass approximately 11 acres in area. The intersection of NH 3A and Main Street is approximately 2,600 linear feet in length and will encompass approximately 7 acres in area. The approximate

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limits of survey are shown on the attached Figure 1. (The Doucet Survey Scope of Work is attached.)

Underground Utilities - MJ will contact municipal utility agencies and utility companies to obtain available record information. MJ will contact agencies and companies that participate in the "Dig-Safe" program and municipal utility agencies for the project area. MJ will compile and plot available utility record information onto the base map. Based on the available utility records and invert information obtained, Doucet will show underground utility lines on the base map.

Phase IC – Resource Identification

The MJ Team will identify existing natural and cultural resources as well as the socioeconomic characteristics within the project corridor. Resources and related considerations to be identified or addressed include:

- Air Quality – The project corridor will be reviewed relative to the Merrimack County classifications of attainment, nonattainment, or maintenance for the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act. The status will be documented. It is assumed that the project will not require a detailed air quality analysis.
- Noise – MJ will determine if the recommended alternative is considered a Type I project that requires a noise analysis. If required, this analysis would be completed in the next phase of the project.
- Wetlands and streams, including ordinary high water and top of bank, will be delineated in accordance with NHDES and Army Corps standards. A stream assessment will also be completed according to the requirements of the NHDES Stream Crossing Rules to inform the design of the project and satisfy current NHDES permitting requirements. MJ will hang sequentially numbered flags along the limits of jurisdiction within the study area (survey limits) and will locate wetland flagging using a GPS unit with sub-meter accuracy. It is assumed four Wetland Determination Data Forms will be required. Wetland functions, values, and general characteristics will be described. Town of Hooksett and NHDES mapping sources will be utilized to identify any wetlands of significance in the study area. A brief letter report will be prepared to summarize the delineation and stream assessment.
- Floodplains and Floodways – Floodplain mapping will be obtained from available online sources. FEMA-mapped flood hazard areas and associated design constraints will be identified. Brickyard Brook is currently mapped by FEMA as Zone "x" without detailed flood elevation data determined.
- Water Quality – Aquifers, wellhead protection areas, drinking water source protection areas, and surface water impairments will be identified based on existing NHDES and Town information. Current regulatory requirements and constraints associated with water quality will be identified and summarized.
- Species/Habitats of Concern – MJ will request a NH Natural Heritage Bureau (NHB) database review and the US Fish & Wildlife Service (USFWS) Official Species List for the study area. MJ will coordinate with the NHB, NH Fish & Game, and USFWS via email regarding any documented fish and wildlife, rare species, and exemplary natural

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communities in the vicinity of the project. It is assumed that no formal surveys for rare species will be required.

- Public and conserved lands – Public and conserved lands will be identified and mapped based on existing information from NH GRANIT and the Town. MJ will coordinate with the LCHIP, CLS, and LWCF programs to determine if these groups hold an interest in any properties adjacent to the project. It is assumed that the project will not impact any public or protected lands.
- Cultural Resources – MJ will prepare a Request for Project Review (RPR) for submittal to the Division of Historical Resources (DHR). Preparing the RPR will entail reviewing the NHDHR online database; writing a detailed (one to two page) description of the project and the area of potential effect (APE); preparing photographs of the project area; and developing GIS figures showing the APE, historic topographic maps, and locations of where the photographs were taken. MJ will submit a draft RPR to the Town for review prior to submission to DHR. Once MJ has received approval from the Town, two hardcopies of the final RPR will be submitted to NHDHR through NHDOT.

Two MJ representatives will attend one NHDOT Cultural Resource Agency Coordination Meeting to determine the need for formal structural or archaeological surveys. If required, these surveys would be completed in the next phase of the project.

- Environmental Justice – Environmental Justice documentation for the project corridor will be gathered, such as racial composition and median household income using the 2020 U.S. Census and American Fact Finder databases.
- Hazardous Materials – This task will consist of the following: 1) review of the NHDES OneStop Database for listed remediation or hazardous materials sites within 1,000' of the project; 2) review of the NHDES OneStop Database for listed landfill sites within 4,000' of the project; 2) review of the NHDES PFAS sampling map for water quality exceedances within 4,000' of the project. Electronic files will be reviewed to obtain initial information on contaminants of concern and the location of contaminated soil and groundwater in relation to proposed work. MJ will use this information to assess the need for more detailed analysis or sampling in the next project phase.
- Invasive Species –The types and extent of invasive species will be identified while completing the wetland delineation and their locations will be shown on project plans. These species, if present, will be described in general terms.
- MJ will review the proposed project at one NHDOT Natural Resource Agency Coordination Meeting to obtain input on potential concerns and anticipated permitting requirements. Two (2) MJ representatives will attend this meeting.
- Key resources of concern, design constraints, and permitting requirements will be summarized in the Engineering Report. Conceptual-level resource impacts will be summarized for each design alternative. MJ will prepare up to two GIS figures to show existing resources and concerns.

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Phase 1D – Project Definition

MJ will develop a formal Purpose and Need statement for the project consistent with NEPA and other federal guidelines. The statement will be developed through public involvement. At the Public Listening Session described in Phase 1H, the issues, problems, concerns, and deficiencies of the intersections, along with the goals for their future, will be discussed. The results of these public discussions will be the basis for the Purpose and Need statement.

Phase 1E – Alternatives Development

A base plan will be prepared during this task for the purpose of developing conceptual alternatives for the project. The base plan will use color aerial photographs with key features identified. Existing right of way, property boundaries, and zoning information will be incorporated from existing information.

The first step will be to develop, with consultation with the Town, three (3) potential design alternatives for both the Hackett Hill Road and Main Street intersections with Route 3A. It is anticipated that intersection concepts will include both two-lane and hybrid roundabouts in addition to a signalized intersection.

A Design Book will be compiled detailing design criteria, horizontal and vertical alignments, cost estimates, traffic analyses, and plans to document each of the reasonable alternatives.

Traffic analyses will be performed for the alternatives and concepts to determine how they perform. Highway Capacity Software (HCS), Synchro, SimTraffic, and Sidra software will be used to perform the evaluations. HCS and Synchro will be utilized for level of service (LOS), delay, and queueing analyses, SimTraffic software will be utilized to present traffic simulations of each alternative, and Sidra Intersection software will be used to evaluate roundabout corridors. Evaluations will be conducted for the following scenarios:

- Existing Conditions (2023)
- Opening Year (2028) for No Build and three (3) Build Concepts
- Design Year (2048) for No Build and three (3) Build Concepts

These concepts will be presented at the Alternatives Workshop described later in this scope.

Step two will occur after the Town staff and stakeholders have adopted a recommended Project Alternative. The recommended Project Alternative will be developed to a 30% level that includes lane widths, shoulder widths, curve radii, taper rates, pavement markings, slope limits, and existing and proposed right of way requirements. A cost estimate will be prepared for the recommended Project Alternative. The cost estimate shall be itemized and prepared using item number, nomenclature, description, materials, and construction requirements, which are contained in the NHDOT Standard Specifications for Road and Bridge Construction, latest edition. The estimate shall include a separate line for the anticipated fee for construction services.

The Plans will include width and length; type of facility and amenities and general layout, including any significant geometric or topographical conditions. Special attention will be paid to

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identifying existing drainage systems throughout the project area and showing the impacts of the proposed work. Preconstruction photos of the drainage and other significant items will be taken.

Engineering Study Report - MJ will prepare an Engineering Study report to document the selected Project Alternative. The report will include a description of the existing conditions, the purpose and need for the project, design criteria, description of the alternatives developed, cost estimates, environmental considerations, and a conclusion. The evaluation of the Brickyard Brook Bridge, discussed in Phase 1F below, will also be documented in the Engineering Study. The Study shall be submitted to the NHDOT (on Town letterhead) with a request for their review. The submission shall include all of the materials generated with the completed Scope of Work. The number of copies delivered to the State shall be determined beforehand.

Phase 1F – Brickyard Brook Structure Study

The existing 8'x8' single cell box culvert carries NH 3A over Brickyard Brook. The culvert, constructed in 1934, has wingwalls flared at a 45-degree angle relative to the road and cutoff walls at the upstream and downstream inverts. The culvert carries two lanes of traffic with approximately 5-foot shoulders on either side of the road. The structure is 89 years old and shows several areas of concrete degradation. Based on its condition and age, the structure is expected to be replaced with a new bridge as part of this project. The following tasks will be completed:

Site Review/Information Gathering - MJ will schedule and complete a field review of the project site. The primary focus of this review will be to evaluate design constraints within the project area. The existing bridge and waterway opening will be observed for visual evidence of stream scour or instability.

Geotechnical Information Review – The existing geotechnical information previously collected by others will be reviewed to estimate conceptual foundations for the bridge structure alternatives. It is assumed the existing information will be sufficient for a conceptual evaluation at this study phase. When the design is advanced to the next phase, additional geotechnical recommendations and subsurface information are expected to be required.

Hydrology/Hydraulics – The hydraulics at the structure location are a combination of upland flow from the drainage basin of Brickyard Brook and backwater flow from the Merrimack River, which is directly downstream of the existing crossing. The hydrologic and hydraulic analysis will be designed to simulate the interaction of the following:

- Upland runoff from the drainage basin of Brickyard Brook.
- Water level in the Merrimack River considering passage of flood wave or hydrograph.
- Timing of peak flow conditions in each watershed.
- Existing culvert geometry and proposed replacement bridge geometries.
- Storage of flood waters upstream of the culvert during flood events in either watershed.

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Hydrologic analyses will be based on the USGS program Streamstats for Brickyard Brook and on available data such as FEMA Flood Study, U.S.G.S. Gages or other studies for the Merrimack River. No new analysis is anticipated for the Merrimack River.

Hydraulic modeling will utilize dynamic or time varied simulations such that the interaction of the stream and river are modeled and potential changes in flood levels are understood. The hydraulic model will be either HECRAS or the 2D SMS SRH-2D depending on project data and requirements.

Goals of the hydrologic and hydraulic analysis are:

- Understand and simulate existing conditions in the stream and river.
- Assist in selection of appropriate bridge span.
- Model water levels to meet local and state clearance requirements.
- Predict potential scour at selected structure.
- Provide data for scour protection design.

Bridge Type Study - MJ will coordinate with the Town while determining the preferred bridge alternative for this water crossing. The selected bridge alternative will be based on the hydraulic analysis, constructability, span length, construction cost estimates, environmental impacts, stream geomorphic compatibility, and long-term maintenance considerations. Bridge span lengths will be conceptually evaluated to satisfy the NHDES Stream Crossing Rules and NHDOT bridge design hydraulic requirements to demonstrate their site impacts. It is anticipated that this evaluation will demonstrate that a bridge that fully meets the NHDES Stream Crossing Rules will not be practical. Therefore, it is anticipated that approval of an alternative design through coordination with the Natural Resource Agencies will be required and that the proposed bridge span will be no greater than 25 feet.

The bridge types that are anticipated to be formally evaluated as part of the bridge type study task include:

- **Three-Sided Precast Concrete Rigid Frame** - This bridge alternative consists of three-sided precast rigid frame elements founded on a concrete footing. The precast frame elements allow the bridge to be prefabricated off-site and quickly installed to minimize construction impacts to the public. This alternative would propose a natural streambed to match existing site conditions and improve aquatic passage. This alternative includes both spread, or pile supported, footings or a concrete slab foundation. This alternative will evaluate the structural, hydraulic, cost and constructability benefits and drawbacks of constructing a three-sided precast concrete rigid frame or arch culvert founded on a concrete footing. This alternative would propose a natural streambed to match existing site conditions and improve aquatic organism passage. We will evaluate both spread, or pile supported, footings or a concrete slab foundation.
- **Four-Sided Precast Concrete Box** – This alternative will evaluate the structural, hydraulic, cost and constructability benefits and drawbacks of constructing a four-sided precast concrete box culvert. The box culvert span is anticipated to be up to 20 feet and

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the bottom would be buried to provide a natural stream bottom to improve aquatic organism passage.

Bridge Construction – Bridge construction sequencing will be an important component within the overall maintenance of traffic. The bridge types to be evaluated are both comprised of precast concrete elements and the construction methods to be evaluated are applicable to both bridge types. The bridge construction methods that will be evaluated include:

- Phase Construction – Traffic control will be coordinated with the construction of the intersection improvements at Hackett Hill Road. It is anticipated that the bridge will be constructed in two phases and maintain two-lanes of traffic through construction.
- Accelerated Bridge Construction (ABC) – This option would utilize a short-term roadway closure to replace the bridge in its entirety within a very short timeframe (weekend closure). This alternative will only be briefly investigated and is not anticipated to be selected. If ABC techniques using a short term roadway closure is identified as the preferred approach, we can develop the traffic analysis and prepare full detour plans as part of the Final Design.

Bridge construction alternatives will be evaluated for impacts to traffic, impacts to ROW, construction duration, compatibility with roadway construction, maintaining stream flow, and cost.

Study Plans – To support the engineering study report discussed in Phase 1E, conceptual plans for the preferred replacement bridge alternative will be developed. Four plan sheets are anticipated, including:

- General Plan View
- Profile
- Typical Bridge and Longitudinal Sections
- Construction Phasing Sections

Phase 1G – Abstracting

Field evidence of boundary and ROW, including bounds, fences and lines of possession will be located by Doucet. The limits of the Town's ROW within the project limits will be ascertained and shown on the survey. Boundary survey of each abutting property is not included. The boundaries of abutting properties that influence the proper calculations of property required for the project will be determined.

Phase 1H – Public Involvement

Public Involvement for the project will include several types of public meetings to ensure all interested parties have the opportunity to participate. A concise Public Involvement Plan will be developed. Local organizations and citizens will be an integral part of the public involvement process. The historical organizations, Chamber of Commerce, property owners, business owners, and others will be encouraged to attend and participate at meetings. Meetings with pertinent Town staff and stakeholders will also be utilized.

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Town Staff and Stakeholder Meetings – A group of pertinent Town staff and stakeholders will be assembled to assist MJ in selecting the preferred alternatives. It is assumed the meetings will be scheduled quarterly. MJ will prepare presentation materials for the meetings and produce meeting minutes. The coordination and outreach with Town Staff and Stakeholders will continue beyond this Engineering Study Phase and is not included in this Scope of Services. It is assumed up to five (5) meetings will be held for the Engineering Study Phase.

In addition, we will prepare for and attend the following meetings:

- Public Listening Session (1 Meeting)
- Alternatives Workshop (1 Meeting)
- Review and Adoption of Recommended Project Alternative (1 Meeting)
- Town Council Presentations (2 Meetings)
- Town Planning Board (1 Meeting)
- Combined Tax Increment Finance/Economic Development Committee (1 Meeting)

A series of public meetings with specific purposes and goals will be held to educate the public on the project and get their opinions. The specific meetings are described in more detail below.

Public Listening Sessions – The first public meetings will be Local Concerns meetings with Listening Sessions designed to gain an understanding of the public's views, opinions, desires, and goals for the project. At the meeting, a brief project overview will be presented including a general overview of the funding requirements, discussion on the project schedule, and a discussion of the project area and the issues to be addressed (or overcome). However, the majority of the meeting will be used to gain public comment and information. The information from these sessions will be used to prepare the Purpose and Need statement that will clearly define the needs and goals of the project. The Purpose and Need statement shall illustrate that the project is justifiable and worth the expenditure of public funds and worth the impacts to the natural and cultural environment.

Alternatives Workshop – This workshop will take place after two (2) conceptual alternatives have been developed for the project. The alternatives will include proposed roadway, intersection, bridge, aesthetic, and access features. The alternatives will be presented on aerial photograph base maps. The public will be encouraged to evaluate and comment on each alternative developed. A comparison matrix of pertinent project elements will be presented. The objective of the meeting is to understand the public's opinion of the presented alternatives. The Alternatives Workshop will be held during a properly noticed public meeting of the Town staff and stakeholders, and the public will be encouraged to provide their input.

Review and Adoption – Once the comments and suggestions from the Alternatives Workshop have been incorporated into the conceptual alternatives, the Town staff and stakeholders will hold a final meeting to review and adopt a recommended Project Alternative. The public will have an opportunity to make final comments or suggestions. Project graphics will also be displayed for public viewing before and after the meeting.

Town Council Presentations – The MJ Team will make up to two (2) presentations to the Hooksett Town Council. One of the meetings would occur after the Town staff and stakeholders

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have made a recommendation. This presentation will summarize the project activities to date and present the recommended Project Alternative for approval. A second meeting would occur after the Draft Engineering Report to address any questions or comments before the report is finalized.

Town Planning Board – The MJ Team will make a presentation to the Hooksett Planning Board to provide project information and answer any questions or concerns from the board.

Combined Tax Increment Finance/Economic Development Committee – The MJ Team will make a presentation at a combined Tax Increment Finance/Economic Development Committee meeting to provide project information and answer any questions or concerns from either committee.

Project Website and Social Media – In consultation with MJ, Town staff will create and maintain a project-specific website. The website will provide project information and updates (including project plans, meeting minutes, points of contact, future planned meetings, and other key project information) provided by MJ. The project website will be developed and maintained by the Town.

Phase 1J – Utility Coordination

MJ will conduct all coordination efforts with private utility companies. The Town will provide MJ with all information regarding Town owned water and sewer facilities within the project limits. Existing utilities include: sanitary sewer, natural gas, water, and overhead power, CATV, and telecommunication lines. MJ will be responsible for coordinating meetings with utility companies and performing the following tasks:

- Review the existing utility information shown on the base mapping and compare it to existing plans, field visits, and the Town’s GIS information.
- Once the existing utility information has been shown on the existing conditions plans, these plans will be sent to the utility companies, both public and private, so that they can be verified and any missing information can be provided, such as depth, number and size of conduits, and manhole locations.
- The existing utility information will then be updated with any corrections or clarifications provided by the utility companies. It is assumed that two (2) utility coordination meetings will be held in advance of distributing the verification plans to alert the utility companies of the project and describe the work required by them once they receive the verification plans.
- MJ will prepare meeting notes for the utility coordination meetings and provide on-going project correspondence via e-mail or telephone communication.

Phase 1K – Estimate Review Committee

MJ will prepare a presentation for and attend a NHDOT Estimate Review Committee (ERC) meeting to present the Engineering Study project cost estimate.

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Assumptions

1. NHDOT Specifications, Standards, and nomenclature will be used for the construction documents.
2. NHDOT standard pay items and published weighted average unit prices will be used to develop the cost estimates. The estimates will be developed commensurate with the level of design for each alternative.
3. All meetings are assumed to be in-person and the Town of Hooksett will arrange for meeting space for committee and public meetings.
4. All survey to comply with NHDOT standards of practice.
5. Coordination with existing utility companies is anticipated. However, no utility relocation design is included.
6. FHWA is the lead federal agency for purposes of the environmental review.
7. MJ will prepare draft and final version of meeting minutes.
8. No new geotechnical investigation will be included during this initial phase. Town of Hooksett has provided the Geotechnical report prepared by Geotechnical Services, Inc. on April 11, 2013. Additional subsurface explorations and geotechnical recommendations will be required in the next design phase to support the foundation design of the proposed replacement structure at Brickyard Brook.

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Figure 1 – Survey Limits



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Serving your Professional Land Surveying & Mapping Needs ®

August 7, 2023

Matthew Moore
McFarland Johnson
53 Regional Drive
Concord, NH 03301-8500

Reference: Land Surveying Services
Hooksett Route 3A/Hackett Hill Road and
Main Street Intersections
NHDOT LPA
DS-LLC Project No. 8001

Dear Matthew:

The following is the Survey Scope of Work for this project.

AREA OF SURVEY:

Survey is limited to the intersection of NH 3A and Hackett Hill Road (approximately 4,000 LF of road encompassing 11 acres), and the intersection of NH 3A and Main Street (approximately 2,600 LF of road encompassing 7 acres). Within this area is the Route 3A culvert, 250 LF from Hackett Hill Road. At this culvert 25' cross sections (top of bank to top of bank) will be taken 100' upstream and downstream to Merrimack River



SCOPE OF WORK:

TASK 1 Topographic Survey

Doucet Survey will complete an engineering survey in accordance with Section III.12 of the NHDOT Survey Technical Standards Manual. Efforts associated with survey will include the following:

- Locate existing features, above ground utilities to meet utility quality level “C” (marked by others), wetland flags (placed by MJ), measure sewer and drain inverts, depth, size and type. Pavement markings, lighting and signage, specimen trees, brush lines, tree lines, streams, rivers, face of buildings, building threshold elevation, 1-foot contours.
- Geodetic Survey to tie into NHSPC NAD83(2011) for horizontal datum and NAVD88 for vertical datum. Set minimum of two temporary benchmarks at each of the two locations.

TASK 2 Records Research

Doucet Survey will research City and State records, including the following:

- State right-of-way records at NHDOT ROW Dept.
- Abutter’s current deeds and referenced & indexed record plans
- Town of Hooksett, Road ROW Records
- Contact utility owners to gather available information of location, size, type of utilities within the survey limits.

TASK 3 Right of Way Survey

Doucet Survey will provide services under the supervision of a Professional Licensed Surveyor (PLS). Efforts associated with survey will include the following:

- Field recovery of right-of-way and boundary monuments.
- Survey report outlining process, findings and decisions.
- Establish roadway right-of-way limits based on survey and boundary control standards of practice in the NH LAN 500 Rules.

TASK 4 ROW Determination Meeting

- Attendance at one boundary facilitation meeting with NHDOT ROW Department is expected to discuss roadway right-of-way decisions.

TASK 5 Develop Existing Conditions Plan

Doucet Survey will submit a preliminary “Existing Conditions Plan” to MJ for review. The plans will incorporate information developed as part of Tasks 1.2 and 1.3.

- The Plan would be at 1” = 20’ scale in 2022 Civil3D format using MJ template. Note:
- Include apparent roadway right-of-way lines based on record and field evidence found.

DELIVERABLES:

- Topographic Plan in 2022 Civil3D and in full size stamped PDF.
- Survey control in csv format.

ASSUMPTIONS:

- Adequate record and physical evidence is found to enable retracement of the right of ways.
- Police detail for 1 day is sufficient to allow for opening of all manhole structures within the travel way.
- ROW determination of intersecting side roads is beyond scope.
- Topographic survey and right of way survey happen in the same mobilization.

SCHEDULE:

- Work would start within six – eight weeks. Survey & development of plan would require eight weeks to complete from start date.

** The schedule outlined herein assume that site conditions (snow, ice, etc.) allow us to efficiently perform the field work in a safe & accurate manner.*