



INSERT MOTION – ITEM IV.A.2

NHDOT AND PDA/DPH – Project Agreement Sarah Mildred Long Bridge

Director Torr:

The Pease Development Authority Board of Directors, consistent with its resolution on August 10, 2017, hereby authorizes the Executive Director to execute the New Hampshire Department of Transportation (“NHDOT”) and PDA Division of Ports and Harbors (DPH) Project Agreement, attached hereto, and further authorizes him to take all other action necessary or appropriate to facilitate and implement the functional replacement of the Barge Dock at the Market Street Terminal.

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**PROJECT AGREEMENT
FOR THE
SARAH MILDRED LONG BRIDGE REPLACEMENT
FUNCTIONAL REPLACEMENT OF THE NH PORT AUTHORITY SIDE BARGE**

**STATE PROJECT #: 15731
FEDERAL PROJECT #: A000(909)**

THIS AGREEMENT, executed in *triplicate*, is made and entered into this ____ day of _____, 2017, between the NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, hereinafter called the "DEPARTMENT", and PEASE DEVELOPMENT AUTHORITY – DIVISION OF PORTS AND HARBORS (PDA-DPH) of Portsmouth, hereinafter called the "OWNING AGENCY".

WITNESSETH that,

WHEREAS, the Sarah Mildred Long Bridge Replacement project has impacted the side barge wharf at the PDA-DPH Market Street Terminal facility in the city of Portsmouth; and

WHEREAS, the DEPARTMENT and FHWA have determined that a project to functionally replace the side barge wharf is eligible for federal funding; and

WHEREAS, the OWNING AGENCY was offered the choice of being compensated for the direct impacts to the wharf or the Functional Replacement, and chose the Functional Replacement; and

WHEREAS, the DEPARTMENT has an existing project Portsmouth – Kittery 15731 Sarah Mildred Long Bridge Replacement that will be used to fund the Functional Replacement; and

WHEREAS, the Functional Replacement is accepted by the DEPARTMENT and approved by FHWA, federal funds will be used to pay for all eligible costs. Matching funds required will be provided by the Department. The following items and estimated cost totaling \$18.55 million outlined below and detailed in DEPARTMENT correspondence to FHWA dated December 23, 2016 are eligible for federal participation.

Item South Extension to the Main Wharf

1 (Estimated cost \$4,550,000)

Item North Extension to Main Wharf

2 (Estimated cost \$7,300,000)

Item Shore Side Improvements for North Extension of Main Wharf

3 (Estimated cost \$2,550,000)

Item Dredging Improvements in front of the North Extension to Elev -35.0 the plus 1-foot over dredge as is the industry norm.

4 (Estimated cost \$2,350,000)

Item Fender System Modification to the Main Wharf and on the new Extensions

5 (Estimated cost \$1,800,000)

Estimated costs include Design, Permitting, Construction, and Construction Engineering for the above items; and

WHEREAS, all work determined to be outside of the scope of the approved and accepted items detailed above are identified as Betterment. Costs related to Betterment work will be the sole responsibility of the OWNING AGENCY

WHEREAS, the letter to FHWA noted above, by reference, is hereby made a part of this AGREEMENT; and

WHEREAS, the OWNING AGENCY desires to act as Sponsor and Manager of the Project; and

WHEREAS, the DEPARTMENT desires to cooperate with the OWNING AGENCY in accomplishing the Project;

NOW, THEREFORE, in consideration of the above premises and in further consideration of the agreements herein set forth by and between the parties hereto, it is mutually agreed as follows:

I. DUTIES AND RESPONSIBILITIES OF THE OWNING AGENCY:

- A. The OWNING AGENCY shall comply with all Federal and State of New Hampshire laws and rules, regulations, and policies as applicable under the Federal-aid Highway Program for Federal Aid Construction Contracts.
- B. The OWNING AGENCY shall manage the design, environmental study, right-of-way acquisition and construction of the Project. Management responsibilities are described in the current version of the DEPARTMENT's document titled "Local Public Agency Manual for the Development of Projects", as it may be amended from time to time, and, by reference, is hereby made a part of this AGREEMENT.
- C. The OWNING AGENCY shall manage the design, environmental study, and construction of the Project in accordance with "NHDOT's Functional Replacement" policy, dated February 17, 2016.
- D. If the OWNING AGENCY wishes to contract with a consultant service, it must receive prior approval from the DEPARTMENT and FHWA, and follow all Title 23 Federal Aid Requirements. All consultant Agreements and change orders shall be reviewed and approved by the DEPARTMENT and FHWA before Notice to Proceed. Any costs incurred prior to the Notice to Proceed will not be eligible for reimbursement and will be the responsibility of the OWNING AGENCY.
- E. The OWNING AGENCY shall submit Draft NEPA and Final NEPA documents to the DEPARTMENT for review.
- F. The OWNING AGENCY shall also submit 60% completed plans, specifications, and estimates to the DEPARTMENT for review.
- G. The OWNING AGENCY shall receive written approval to advertise from the DEPARTMENT prior to advertising the project for construction bidding.
- H. The OWNING AGENCY shall submit bid results and a recommendation to award to the DEPARTMENT and FHWA for concurrence. DEPARTMENT and FHWA will review the documents and provide approval to the OWNING AGENCY prior to acceptance and Notice to Proceed is provided to the Contractor. Any costs incurred prior to DEPARTMENT and FHWA approval will not be eligible for reimbursement and will be the responsibility of the OWNING AGENCY.

- I. The OWNING AGENCY shall submit completed plans, specifications, and estimates to the DEPARTMENT and FHWA for review and approval. Advertising for bids and letting of the contract to construct the Functional Replacement may follow the general procedures utilized by the OWNING AGENCY, if acceptable to the DEPARTMENT and FHWA. The OWNING AGENCY shall assign or engage through contract a Clerk of the Works to oversee Construction. The DEPARTMENT will be responsible for periodic on-site inspections to note any changes from the approved plans and to ensure that betterments that were not approved as items in the Functional Replacement agreement are not included at FHWA or DEPARTMENT cost.
- J. If, during design or construction, change orders are needed, the OWNING AGENCY shall timely submit the documents supporting the change to the DEPARTMENT. The DEPARTMENT will transmit all change orders to FHWA for review and approval.
- K. The OWNING AGENCY shall submit monthly progress reports and invoices to the DEPARTMENT for reimbursement of its share of the amounts paid to engineering, environmental and/or right-of-way consultants and construction contractors for the performance of the work set forth in the AGREEMENT. The invoice structure shall include details of work completed consistent with the Scope of Work as defined in the AGREEMENT, as well as backup information to support the charges. The OWNING AGENCY shall certify that the invoices properly represent payment for work that has been completed and paid for by the OWNING AGENCY.
- L. The OWNING AGENCY is required to maintain all project and financial records pertinent to the development of the Project for three (3) years beyond the date of the DEPARTMENT's final voucher. The DEPARTMENT will send a letter to the OWNING AGENCY with the date of this approval. If there is a failure to maintain this documentation, NHDOT and/or Federal Highway Administration could take an action up to and including requesting a refund of all reimbursed project costs.
- M. DELETED (PDA-DPH, an agency of the State of NH cannot indemnify another State agency)
- N. Non-Discrimination:
 - 1. The OWNING AGENCY agrees that it will comply with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d—2000d-4 (referred to as the ACT), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, US Department of Transportation, Subtitle A, Office of the Secretary, Part 21, "Non-discrimination in Federally-Assisted Programs of The Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964" (referred to as the "REGULATIONS"), the Federal-aid Highway Act of 1973, and other pertinent directives, to the end that no person shall on the grounds of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity for which the OWNING AGENCY receives Federal financial assistance extended by the State of New Hampshire. This AGREEMENT obligates the OWNING AGENCY for the period during which Federal financial assistance is extended.
 - 2. The OWNING AGENCY hereby gives assurance as required by subsection 21.7(a)(1) of the REGULATIONS that it will promptly take any measures necessary to effectuate this AGREEMENT, including but not limited to the following specific assurances:

- a. That each "program" and each "facility" as defined in subsections 21.23(e) and 21.23(b) of the REGULATIONS will be conducted or operated in compliance with all requirements of the REGULATIONS.
- b. That the OWNING AGENCY shall insert the following notification in all solicitations for negotiated agreements or bids for work or material made in connection with this Project: *The OWNING AGENCY hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, or disability in consideration for an award.*
- c. That the OWNING AGENCY shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DEPARTMENT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The OWNING AGENCY shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DEPARTMENT-assisted contracts. The DEPARTMENT's DBE program, as required by 49 CFR part 26 and as approved by the United States Department of Transportation, is incorporated by reference in this AGREEMENT. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this AGREEMENT. Upon notification to the OWNING AGENCY of its failure to carry out its approved program, the DEPARTMENT may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*)
- d. That the OWNING AGENCY shall include the following assurance in each contract signed with a contractor and each subcontract the prime contractor signs with a subcontractor: *The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, sex, age, or disability in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DEPARTMENT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of the contract or such other remedy, as the recipient deems appropriate.*
3. The OWNING AGENCY shall insert a copy of the required provisions of Federally-assisted construction contracts in accordance with Executive Order 11246, Equal Employment Opportunity, and 41 CFR Part 60-4, Affirmative Action Requirements, in each contract entered into pursuant to this AGREEMENT. Required Federal contract provisions can be obtained through the DEPARTMENT's Labor Compliance Office (271-6612) or Online at: <http://www.nh.gov/dot/org/administration/ofc/documents.htm>
- O. If there is a default of any nature to this AGREEMENT, the OWNING AGENCY shall be required to reimburse the DEPARTMENT and/or the Federal Highway Trust Fund for all funds expended under this Project.

- P. Notwithstanding anything in this Agreement to the contrary, all obligations of the OWNING AGENCY, including without limitation, the obligation to make any payments, are contingent upon the availability and continued appropriation of funds, and in no event shall the OWNING AGENCY be liable for any payments in excess of such available appropriated funds.

II. DUTIES AND RESPONSIBILITIES OF THE DEPARTMENT:

- A. The DEPARTMENT shall review the Project engineering plans, environmental documents and contract documents applicable to the Federal Highway Administration and State of New Hampshire requirements for a Federally-funded project and submit appropriate documentation to the Federal Highway Administration to receive Federal approval.
- B. The DEPARTMENT shall reimburse 100% of eligible costs to the OWNING AGENCY after receipt and approval of properly documented invoices that have been certified by the OWNING AGENCY as properly representing work eligible under the Functional Replacement Agreement that has been completed and paid for by the OWNING AGENCY.
- C. The DEPARTMENT will perform review and oversight on the replacement project to insure compliance with the Agreement, including the following elements:
 - a. Site selection,
 - b. Replacement facility plans and specifications,
 - c. Contract documents,
 - d. Progress inspections during construction, and
 - e. Final inspection at completion.
- D. If, during design or construction, change orders are needed, the DEPARTMENT shall be responsible for review of the change(s) to ensure that betterments are not included at project cost. DEPARTMENT will transmit all changes orders to FHWA for review and approval.
- E. The DEPARTMENT shall use its best efforts to obtain FHWA approval necessary to issue a Notice to Proceed for award of contracts to complete the Functional Replacement.

III. IT IS FURTHER UNDERSTOOD AND AGREED BETWEEN THE DEPARTMENT AND THE OWNING AGENCY:

- A. That the OWNING AGENCY will not incur any Project costs nor enter into any agreement with any third party, including but not limited to consultants, contractors, or engineers until such time that it receives a written notice to proceed from the DEPARTMENT to do so. Any costs incurred prior to the notice to proceed will not be eligible for reimbursement and will be the responsibility of the OWNING AGENCY.
- B. That the maximum amount of funds available for this Project for reimbursement under this AGREEMENT from the DEPARTMENT shall be as set forth on page 1 of this Agreement. As the scope of the Project is finalized, should the costs for the Project exceed the amount budgeted, the DEPARTMENT agrees to review Project costs for consideration of additional funding. Neither the DEPARTMENT nor the Federal Highway Administration will be responsible for any expenses or costs incurred by the OWNING AGENCY under this AGREEMENT in excess of the estimated amounts detailed in each Item unless the DEPARTMENT expressly authorizes additional funding prior to the work being performed.

- C. That the OWNING AGENCY shall invoice the DEPARTMENT for incurred costs on a monthly basis and the DEPARTMENT will process these invoices for payment in an expeditious manner.
- D. That the OWNING AGENCY agrees to commence the Project within three (3) months after the date of this AGREEMENT and substantially complete the Project within six (6) years after the date of the Agreement approval by G&C, unless earlier terminated as provided herein. The OWNING AGENCY may apply to the DEPARTMENT for an extension. Failure to meet either deadline without good cause may cancel the DEPARTMENT's participation in this Project at its discretion. Any remaining funds will be forfeited. The OWNING AGENCY is responsible for informing and coordinating a new Project completion date that will need to be approved by the DEPARTMENT if any condition arises that may result in either deadline being unattainable.
- E. That the OWNING AGENCY will attend a meeting with the DEPARTMENT's representative and FHWA after signing this AGREEMENT to discuss the Project's scope, budget and schedule. The OWNING AGENCY will subsequently provide a schedule showing project milestones with dates. Failure to meet these dates could delay funding for construction.
- F. That this AGREEMENT is contingent upon the appropriation of sufficient funds from the State of New Hampshire Legislature and/or the Federal Highway Administration. If sufficient funds are not appropriated, the DEPARTMENT may terminate this AGREEMENT upon thirty (30) days' written notice to the OWNING AGENCY. Such termination shall relieve the DEPARTMENT and the OWNING AGENCY from obligations under this AGREEMENT after the termination date.

**NEW HAMPSHIRE DEPARTMENT
OF TRANSPORTATION**

**PEASE DEVELOPMENT AUTHORITY,
DIVISION OF PORTS AND HARBORS**

By: _____
Commissioner
Department of Transportation

By: _____
Title: Executive Director

Authorized to enter into Agreement as
approved by Governor & Council on
_____.



U.S. Department
of Transportation
**Federal Highway
Administration**

New Hampshire Division

February 17, 2016

53 Pleasant Street, Suite 2200
Concord, NH 03301
(603) 228-0417

In Reply Refer To:
HDA-NH

Ms. Victoria Sheehan
Commissioner
New Hampshire Department of Transportation
7 Hazen Drive
Concord, NH 03302-0483

Attn: Christopher M. Waszczuk

**Subject: Procedures for Acquisition of Real Property Rights from Governmental Agencies
by Functional Replacement**

Dear Commissioner Sheehan:

FHWA New Hampshire Division has reviewed your request for approval of the submitted Procedures for Acquisition of Real Property Rights from Governmental Agencies by Functional Replacement (Procedures). After review and incorporation of FHWA comments previously provided, the attached Procedures and flowchart are approved for immediate use by the Department for acquiring real property interests from Government agencies. This approved process must be included in the Department's FHWA approved ROW Manual for consistency in use and application and any changes in the approved process require FHWA approval. We request an update to the ROW Manual with these procedures by June 1, 2016.

Please feel free to contact Mark Hasselmann at 207-512-4913 or via email at mark.hasselmann@dot.gov with any questions.

Sincerely,

Patrick A. Bauer
Division Administrator

PROCEDURES FOR ACQUISITION OF REAL PROPERTY RIGHTS FROM GOVERNMENTAL AGENCIES BY FUNCTIONAL REPLACEMENT

The purpose of this section is to provide an alternative procedure for the New Hampshire Department of Transportation (NHDOT) to use when acquiring real property rights from governmental agencies.

Functional Replacement is designed to provide relief to public agencies when a highway project requires the acquisition of an essential public facility. This policy recognizes that the proper measure of compensation for essential facilities may be their replacement cost rather than the depreciated current market value. Authority for functional replacement is found in NH RSA 228:31 and Title 23 CFR 710.509.

Functional Replacement of Real Property in Public Ownership

Functional replacement is the replacement of real property, including structures, and land, if needed of equivalent utility for the replacement site, acquired as a result of a highway project, in lieu of paying market value (MV) for the real property acquired.

The Functional Replacement Program is the responsibility of the Bureau of Right of Way.

When functional replacement is considered, the following conditions must be met:

- (A) The property to be replaced must be publicly owned and in public use;
- (B) The use of functional replacement must be in the public interest;
- (C) On all federal projects, FHWA approval for functional replacement in accordance with FHWA/NHDOT Stewardship Oversight Agreement;
- (D) The proposed replacement and construction sites must best meet the needs with minimal site plan waivers or extra expenses to conform with existing local and State codes, law, and zoning regulations;
- (E) The replacement facility will be in public ownership and will continue the public use function of the acquired facility;
- (F) The NHDOT has informed the owning agency of the property of its right to an estimate of just compensation based on an appraisal of market value and the option to choose either just compensation or functional replacement; and
- (G) The real property is not owned by a railroad or utility company.

During the early stages of project development, when functional replacement is being considered, the following must occur:

- (A) Representatives from the Right-of-Way Bureau must meet with representatives of the owning agency to discuss the effect of a possible acquisition and potential application of functional replacement; and
- (B) The results of these discussions and any decisions resulting from them shall be part of the conceptual study and included in the Environmental Document.

Initial Request:

On Federal-aid projects when the NHDOT determines that functional replacement is in the public interest, the NHDOT will submit a specific request for FHWA concurrence in the public interest finding. This request should include:

- (A) An estimate including acquisition and relocation costs of the publicly owned and used parcel relative to the contemplated replacement as well as an estimated cost of the Functional Replacement;
- (B) Agreements reached at meetings between the NHDOT and the owning agency; and
- (C) An explanation of the basis for the request.

The request shall include a statement that any replacement property will be acquired in accordance with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended and applicable FHWA directives.

Upon FHWA concurrence for Federal-aid projects the property will be appraised and an amount of just compensation will be established and presented to the owning agency. The owning agency has the option of accepting the amount of compensation established by the appraisal, or accepting functional replacement. The offer to the owning agency must be documented, as well as, their decision to accept the MV or Functional Replacement.

Replacement Site Selection and Construction:

Upon FHWA concurrence that functional replacement is in the public interest and the owning agency accepts functional replacement, an agreement is drafted setting forth the rights, obligations, and duties of each party with regard to the facility being acquired, the acquisition of the replacement site, and the construction of the replacement facility. The proposed agreement should also clearly define what costs are to be borne by the NHDOT and what costs will be the responsibility of the owning agency. The proposed agreement will be approved by the FHWA prior to execution with the owning agency. Any subsequent change orders will be reviewed and approved by the FHWA and NHDOT before submittal for payment.

Upon concurrence by the FHWA and execution of the agreement, the NHDOT requests authorization from FHWA to proceed with the acquisition of the replacement site (if applicable) and to proceed with the physical construction of minor structures. In the case of major improvements, authorization to proceed with development of detailed plans, specifications, and estimates will be requested.

The NHDOT will acquire the suitable replacement site. If the owning agency acquires the site it must be in accordance with the URA and they will be reimbursed for actual and reasonable costs associated with the acquisition.

If the owning agency wishes to contract with a consultant for planning or architectural services, it must receive prior approval from the NHDOT and FHWA, and follow all Title 23 Federal Aid Requirements.

The completed plans, specifications, and estimates are submitted to the FHWA for review and approval in accordance with established procedures. This review will be primarily to ensure betterments are not included in the scope of work as Federal-aid costs. Betterments are considered increases in capacity or improvements above what is required by current State and local codes and regulations or reasonable prevailing standards. Where major improvements are involved, advertising for bids and letting of the contract to construct the replacement facility may follow the general procedures utilized by the owning agency, if acceptable to the NHDOT and the FHWA. The specifications, where applicable, should include the provisions for NHDOT inspection during the construction of the replacement facility.

The NHDOT may choose to assign a Project Engineer to represent the NHDOT during the construction period. Prior to construction, the NHDOT may require the owning agency to hire a Clerk of the Works, the cost of which is to be reimbursed by the NHDOT as part of the total cost of the project.

On Federal-aid projects, a request for final payment will be prepared for submittal to the FHWA after the replacement facility has been completed and accepted by the owning agency. This request will include:

- (A) A signed statement by an appropriate official of both the owning agency and the NHDOT, certifying that the cost of the replacement facility has actually been incurred, in accordance with the provisions of the executed document, and;
- (B) A statement certifying that a final inspection of the facility was made by the NHDOT and the owning agency, and that the NHDOT is released from any further responsibility.

NHDOT Responsibilities

Upon authorization of FHWA NHDOT will authorize the owning agency to begin work.

NHDOT will perform review and oversight on the replacement project to insure compliance with the agreement, including the following elements:

1. Site selection and purchase,
2. Replacement facility plans and specifications,
3. Contract documents,
4. Progress inspections during construction, and
5. Final inspection at completion.

During construction of the replacement facility NHDOT is responsible for periodic on-site inspections to note any changes from the approved plans and to ensure that betterments that were not approved as items in the Functional Replacement agreement are not included at FHWA or NHDOT cost.

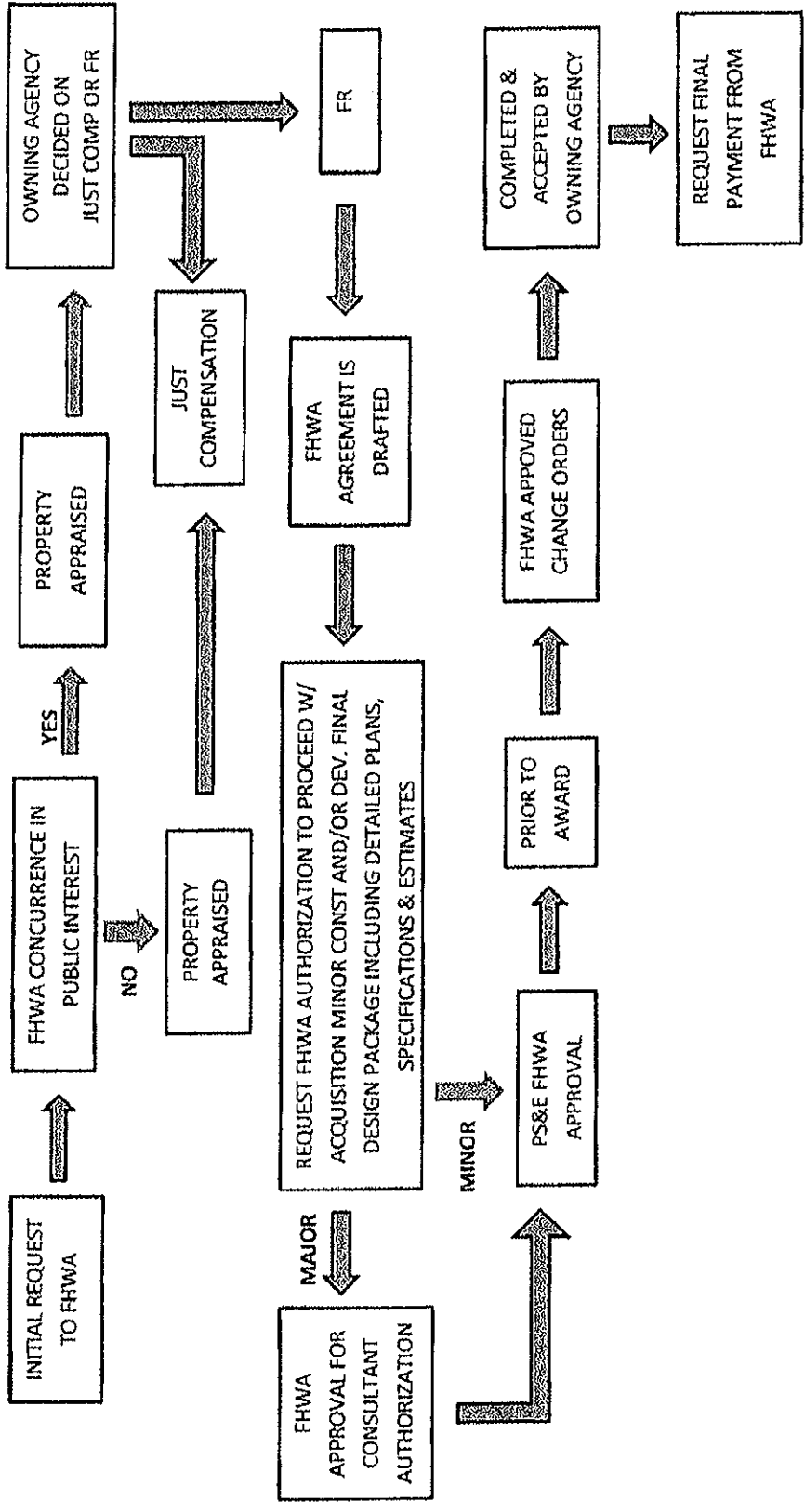
If, during construction, change orders are needed NHDOT shall be responsible for review of the change(s) to ensure that betterments are not included at project cost. Additionally, on projects with federal participation in the Functional Replacement, all change orders must be transmitted to the Project Manager, for submission to FHWA for review and approval.

NHDOT will formally approve the completion of the project prior to making the final payment to the owning agency, NHDOT shall obtain a statement signed by an appropriate official of the owning agency certifying that the cost of the replacement facility has actually been incurred in accordance with the provisions of the executed agreement. The statement must certify that a final inspection of the facility was made by a representative of NHDOT and a representative of the owning agency. The statement shall also certify that NHDOT is released from any further responsibility for construction of the replacement facility.

Functional replacement may require a personal property move of the public agency, including temporary storage for up to one year, in accordance with the Uniform Act.

If functional replacement is completed after advertisement of the NHDOT/FHWA construction project the Right-of-Way certificate must be reissued to reflect complete acquisition and relocation (level 1 cert).

FUNCTIONAL REPLACEMENT FHWA CONCURRENCE SEQUENCE



Contract Requirements for Project Design

Most local project administration (LPA) projects will require the services of an engineer or architect licensed in the State of NH in the applicable branch of engineering. These services are typically provided by an outside consultant contracted to the Sponsor or occasionally through the use of qualified, professional municipal employees provided the Sponsor meets the requirements of force account (See Use of Municipal Employees, this section and Section 24 for force account).

This firm or person should have experience in developing projects and be familiar with state and federal regulations and be willing to gain knowledge about any requirements specifically applicable to Federal Aid Highway projects (FAHP). The firm or person must also be certified in the LPA process (See Section 5).

FHWA has recently issued a memorandum dated July 20, 2011 entitled "INFORMATION: Updated Engineering and Design Related Services Guidance". The Memorandum refers to a document entitled "Procurement, Management, and Administration of Engineering and Design Related Services -- Questions and Answers". The purpose of this document is to clarify the statutory and regulatory requirements and the policies of the FHWA associated with the use of consultant services in the delivery of FAHP funded projects. Below is the link to this document:

<http://www.fhwa.dot.gov/programadmin/consultant.cfm>

Also refer to Appendix 9 for a copy of this document. However, since this document is subject to change, the latest version should always be obtained from the link above.

Details regarding the required contract requirements for consultants and municipal employees follow:

Consultant Contracts

Upon consultant approval and authorization by NHDOT that the Sponsor has provided adequate documentation to confirm compliance with the Qualification-Based Selection Process (see Section 13), the next step is for the Sponsor to proceed with negotiation of a scope and fee for design services with the consultant (refer to Appendix 9 for sample consultant contract). The Sponsor shall submit the design contract to the NHDOT project manager for review prior to execution of the contract. The submission must include a contract containing the following information with regard to scope, fee, and terms and conditions, as well as the Independent Government Estimate.

Scope

The scope of work in the consultant contract should match the project scope from the approved program's application. However, there are instances when the application funds approved differ from the funds requested. In these cases, the scope of work in the consultant contract will need to be revised to be compatible with the approved funds.

It may be necessary to prepare a scope and fee and seek NHDOT approval for the Engineering Study phase only in order to start the project. The Engineering Study would investigate alternative designs to determine a preferred alternative for a project that can be constructed for the available funds. Once a preferred alternative is chosen by the Sponsor and approved by NHDOT, thus defining a clear scope of work, amendments to the initial contract can be prepared and submitted for NHDOT approval for the subsequent Preliminary Engineering Design Phase (Preliminary Design, Final Design, and Bid Phase).

Preliminary Engineering Design

Generally, the scope of work for design services should be structured to match the design phases outlined in this manual - Engineering Study, Preliminary Design, Final Design, and Bid Phase (see Section 15). Each design phase shall include a timeline with anticipated beginning and end dates and detailed individual tasks to provide a clear scope of work. Typically, construction engineering scope and fee is not defined and negotiated until the design is nearing completion and the scope of the project is known. The initial consultant contract shall include scope and fee for engineering services through final design and bid phase but only the scope for construction engineering. As described in Section 15, the Engineer's Estimate for Engineering Study, Preliminary Design, and Final Design will include the anticipated fee for construction engineering. Construction Engineering will require a separate contract amendment as described below.

Construction Engineering

A separate contract amendment will be required to provide the fee for construction engineering and any scope revisions to the original contract with regard to construction engineering. The cost breakdown below also must be used for construction engineering. This contract amendment will need to be submitted close to the submission of the final plans *but no later than* eight weeks prior to the bid advertisement date to allow adequate time for NHDOT to prepare and process an internal project estimate and to obtain FHWA approval. Also refer to Section 27 for a detailed scope of work for construction engineering.

Engineering Cost Breakdown (Fee)

The engineering cost breakdown, or fee, shall coincide with the tasks listed in the scope of work and shall also be structured to include the information listed below. Typically contracts are either cost-plus-fixed fee or firm-fixed price (also called lump sum) and must specify which type is being used in the contract. However, there are other contract alternatives. The project sponsor shall contact the NHDOT project manager if other contract alternatives are proposed.

A cost-plus-fixed-fee contract is a cost reimbursement contract that provides for payment to the consultant of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost, but may be adjusted as a result of out-of-scope changes in the work to be performed under the contract. This contract type permits contracting for efforts that might

otherwise present too great a risk to the consultant, but it provides the consultant only a minimum incentive to control costs.

A firm-fixed/lump sum contract provides for a price that is not subject to any adjustment on the basis of the consultant's cost experience in performing the contract. This contract type places maximum risk and full responsibility for all costs and resulting profit or loss upon the consultant. It provides maximum incentive for the consultant to control costs and perform effectively and impose a minimum administrative burden upon the contracting parties. No contract amendments are allowed for these firm-fixed/lump sum contracts, unless significant out-of-scope work is added to the contract.

All sub-consultants need to be included in the cost breakdown. A lump sum cost can be used for sub-consultants up to a maximum of \$10,000. For all consultant contracts and sub-consultant costs over \$10,000, the breakdown below must be used:

- The fee is broken down into Direct Labor, Indirect Cost, Profit, and Expense categories (see Appendix 9 for a sample fee schedule).
- Direct Labor Cost = Direct Labor Rate x Number of Hours. Direct Labor Rate must not exceed \$50/hour for all individuals unless approved by NHDOT. The Sponsor must submit direct labor rates greater than \$50/hour to the NHDOT project manager for review and approval. These cases are rare and are only considered for areas of special expertise.
- Indirect Cost Rates for all consultants must be approved annually by the NHDOT Auditing Department. Consultants must contact the NHDOT Auditing Department (603-271-1557) for the procedure required to obtain an approved indirect cost rate. For contracts anticipated to extend beyond the life of the NHDOT-approved indirect rate, consultants have the option of fixing the rate for the life of the contract.
Indirect Cost = Direct Labor Cost x Approved Indirect Cost Rate
- Total Labor Cost = Direct Labor Cost + Indirect Cost Rate
- Profit = 10% maximum x Total Labor Cost for cost-plus-fixed-fee contract
Profit = 15% maximum x Total Labor Cost for lump sum contract
These profit percentages are the maximum allowed. The project sponsor shall negotiate these percentages with the consultant based on the complexity of the project.
The total amount is fixed for the project scope and does not increase if additional work is added within the original scope.
- Expenses (i.e. mileage, printing, etc.) The mileage needs to agree with the federally-approved mileage rate in effect at the time of the contract. This federal rate is subject to change each year. Expenses must not be included in the calculation of profit. The federally-approved mileage rate can be obtained at the following link:
<http://www.gsa.gov/portal/content/100715>

Independent Government Estimate

The Sponsor is required to perform an Independent Government Estimate (IGE) for negotiating consultant contracts, contract amendments, and construction change orders. This section outlines the process required for performing an IGE for consultant contracts and contract amendments, but the process can be generally followed for construction change orders. In all cases the IGE should be performed prior to the Sponsor receiving the cost breakdown (fee) from the consultant or contractor, and used for negotiating the final product.

The consultant shall provide the following information to the Sponsor to perform the IGE:

- Scope of work for all tasks required, typically a written description of each major task
- Engineering cost breakdown form used by consultant to calculate fee excluding man-hour breakdown and costs. This form is typically a spreadsheet with task descriptions on left side and the various labor classifications along the top.

The sponsor then uses this blank task matrix to enter estimated man-hours to calculate the IGE. This IGE will serve as the baseline for the sponsor to negotiate with the consultant over an agreeable scope and fee, direct labor costs, the indirect cost, profit, sub consultants, and reimbursable expenses are calculated and added to get the total cost. In summary the form should include the following. A sample engineering cost breakdown form for performing the IGE is included in the Appendix 9.

- Task descriptions
- Labor classifications and rates for personnel who will work on project
- Overhead rate
- Profit/fixed fee percentage
- Sub consultants required for project
- Reimbursable expenses anticipated

Upon completion of the IGE, the Sponsor shall obtain the completed labor rate estimate form, including man-hours and costs, from the consultant. The Sponsor shall negotiate with the consultant as required to obtain a final scope and fee proposal. The Sponsor must prepare and submit to NHDOT a memorandum summarizing the process of the independent government estimate relating to the negotiation of the consultant contract, the final scope and fee proposal, and the IGE for review and approval.

Terms and Conditions

The Contract shall include requirements pertaining to Indemnification and insurance limits.

The contract shall also include language with regard to ownership of plans and other documentation prepared by consultants. Documents that have been prepared for federally funded projects become the property of the **Sponsor, NHDOT and FHWA**. Below is standard language that goes into NHDOT contracts that can be used as a guide:

All data, plans, drawings, tracings, estimates, specifications, proposals, sketches, diagrams, calculations, reports or other documents collected, prepared, or undertaken either manually or electronically by the CONSULTANT, under the provisions of this AGREEMENT, immediately shall become the property of the SPONSOR, and, when completed, shall bear the CONSULTANT'S endorsement. The CONSULTANT shall surrender to the SPONSOR, upon demand at any time, or submit to its inspection, any data, plan, drawing, tracing, estimate, specification, proposal, sketch, diagram, calculation, report or document which shall have been collected, prepared, or undertaken by the CONSULTANT, pursuant to this AGREEMENT, or shall have been hitherto furnished to the CONSULTANT by the SPONSOR. The CONSULTANT shall have the right, with the written approval of the SPONSOR, to use any of the data prepared by it and hitherto delivered to the SPONSOR at any later stage of the project contemplated by this AGREEMENT.

Contract Amendments

Contract amendments to the original contract may be required for the following reasons:

- The original contract was prepared for only some but not all of the design phases. This assumes that the Qualification-Based Selection Process was approved for all design phases.
- A change occurred in scope of work.

An independent government estimate as described above also needs to be prepared for contract amendments. Contract amendments need to indicate the reason for the change in scope of work and must follow the cost breakdown described previously in this section. Contract amendments need to be submitted and approved by NHDOT and FHWA prior to the work being done. Work done prior to NHDOT/FHWA approval is **not** reimbursable.

Use of Municipal Employees (Force Account)

Typically, engineering services are provided by outside consultants contracted to the Sponsor. However, in rare cases, the Sponsor may request the use of project funds to pay its own employees. The Sponsor is required to prepare a Public Interest Finding (See Section 24 for details), prepare a scope and fee, and submit this information for NHDOT approval and FHWA concurrence before the work is started. The scope and fee has the same requirements described previously under consultant contracts except that profit is not applicable for force account work.

Approval of Contract

Once NHDOT has determined that the contract requirements described herein have been met, the NHDOT project manager will issue an Engineering Scope and Fee Approval letter to the Sponsor, which approves the expenditure of federal funds for the design scope indicated in the letter. The Sponsor shall proceed with the execution of the contract and submit a copy of the executed contract back to NHDOT. The Sponsor shall maintain a copy of the executed contract with all other project records for future audit purposes. Refer to Section 31, Project Closeout, for requirements for maintaining project and financial records.