

MaineDOT Local Project Administration Manual & Resource Guide





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Local Project Administration Manual & Resource Guide

Administration & Finance



MaineDOT

Integrity - Competence - Service

Revised 2019

Administration & Finance

Each year, communities repair roads, build sidewalks, make intersections safer, and improve their waterfronts through a partnership known as Local Project Administration. In this partnership, a staff member with decision-making authority manages what is known as a “locally administered project” in cooperation with MaineDOT, which provides funding, technical assistance and oversight.

Organizations that commonly take on locally administered projects include municipalities, transit providers and tribal governments – collectively called “local agencies.” Among the staff members placed in charge of them are public works directors, municipal engineers, planners, development directors, town managers, and agency administrators, all of whom must follow this Manual.

Chapter 1 provides guidance on the administrative and financial requirements for local projects awarded federal and state money through MaineDOT. It covers the following topics:

- Review and approval of local administration (page 1-1);
- Certification (page 1-2);
- Local responsibilities (page 1-2);
- MaineDOT responsibilities (page 1-3);
- Financial requirements (pages 1-4 to 1-7);
- Record-keeping and evaluation (page 1-8);
- Figure 1.1: Project flowchart (page 1-9);
- Figure 1.2: Project timetable (page 1-10);
- Appendix 1A: Project checklist, **revised in 2019** (page 1-11); and
- Appendix 1B: Submittals to MaineDOT (page 1-20).



Resources for local agencies are available online: www.maine.gov/mdot/lpa/

1.1 Approval of Local Administration

MaineDOT must ensure that locally administered projects meet state and federal requirements. After a local agency receives a project funding award, MaineDOT managers from appropriate disciplines weigh the size and structure of the agency against the complexity of the work to gauge the likelihood of the project succeeding if administered locally.

MaineDOT is accountable for the federal transportation funding provided to Maine, including sub-awards to local agencies. MaineDOT, therefore, must verify that local agencies are adequately staffed and suitably equipped to carry out projects successfully, with sufficient accounting controls.

Requests to administer federally funded projects should be sent to MaineDOT’s Local Projects Coordinator in the format of *Communication 1*, found on page 1-21, with an explanation of:

- Name, title and responsibilities of the full-time employee to manage the project;
- Staff experience and qualifications; and
- Ability to manage federal and state funds with proper accounting controls.

After review, MaineDOT will determine if local administration would be suitable. If so, MaineDOT will draft an agreement in accordance with section 1.5.1, on page 1-4, “Project Agreement.” If not, MaineDOT will administer the project and invoice the sponsoring municipality for its local matching share of the cost, if applicable, as work progresses.

Note: Projects funded through state programs with no federal money, such as the Small Harbor Improvement Program, must be administered locally as a condition of award.

1.2 Certification

MaineDOT grants Local Project Administration certification to individuals, meaning that the person in charge of a federally funded project must be certified. Without a certified person on staff, a local agency cannot administer a project with federal transportation funding.

Certification – mandatory for federal-aid projects – has two steps:

- **Tier I** certification is granted upon completion of a one-day training on the fundamentals of delivering a project. MaineDOT holds two sessions per year. Certification is valid for **4 years**.
- **Tier II** certification consists of a project-specific review at the start of a project, during which MaineDOT and local staff go over the scope, budget, schedule and requirements. This review is part of all projects, regardless of funding source.



Certification training is *recommended* for consultants who will assist agencies with projects and for local employees who intend to manage projects with state funds, such as through the Small Harbor Improvement Program.

1.3 Local Responsibilities

If a local agency takes on a project with federal money, a **full-time** employee with certification and appropriate qualifications – described on the next page – must manage the project. Although consultants may assist with locally administered projects, they cannot replace agency employees as project administrators. That is a federal requirement, found in Title 23 of the Code of Federal Regulations (CFR) part 105, “Supervising Agency.”

Projects without federal funds, such as those awarded to cities and towns through state grant programs, have flexibility from the full-time requirement. Still, the local project administrators must be employees of the sponsoring municipalities who are qualified to manage such projects, as determined by MaineDOT.

MaineDOT expects every local project administrator to carry out the tasks listed below:

- Administering activities involving cost, time, adherence to contract requirements, quality, and scope of work;
- Directing employees and consultants to carry out project administration and contract oversight tasks, including proper documentation;
- Reviewing financial transactions to ensure that there are safeguards in place to minimize waste, fraud and abuse;
- Staying on top of day-to-day project operations;
- Visiting and reviewing a project on a frequency commensurate with the magnitude and complexity of the project.

Turnover: If the certified administrator on a federally funded project leaves, another employee with certification must take over. If no one is certified, MaineDOT may order work suspended until a qualified employee can be certified.

1.4 MaineDOT Responsibilities

As the organization accountable for the federal and state transportation funding that Maine receives, MaineDOT assigns state project managers and other technical staff to locally administered projects to provide oversight and to assist local agencies in delivering the work.

Activities that MaineDOT generally handles consist of the following:

- Performing survey work for projects on state highways;
- Carrying out the National Environmental Policy Act (NEPA) review process;
- Leading the right-of-way process for projects on state highways;
- Preparing and executing project agreements;
- Reviewing/approving all contracts between local agencies and other parties;
- Reviewing design plans to be sure that projects meet federal and state requirements;
- Reviewing/approving invoices requesting reimbursement;
- Authorizing work at the milestones found in the flowchart on page 1-9 of this chapter;
- Reviewing the final plans, specifications and estimate (PS&E) package;
- Ensuring that construction supervision, inspection and materials testing are adequate;
- Testing construction materials at MaineDOT labs;
- Inspecting the completed project for compliance with federal and state requirements;
- Accepting, closing out and auditing a project.

1.5 Financial Requirements

1.5.1 Project Agreement

Before work eligible for federal or state funding may start, MaineDOT and the local agency administering a project must execute an agreement that covers the following:

- The MaineDOT Work Identification Number (WIN);
- The federal project number and date of federal authorization, if applicable;
- The Catalogue of Federal Discretionary Assistance (CFDA) number, typically 20.205.
- An agency's DUNS number;
- Scope of work;
- Breakdown of federal, state and local funding, as applicable;
- Responsibilities of MaineDOT and the local agency at milestones in the project;
- Standard legal provisions, as directed by MaineDOT's Office of Legal Services.

MaineDOT typically drafts agreements for federal projects once the Statewide Transportation Improvement Program (STIP) is approved or modified to include them. Agreements for projects with state funds follow publication of MaineDOT's Work Plan. Once an agreement is executed, MaineDOT gives a local agency notice to proceed with reimbursable work.

Remember: Expenditures incurred before MaineDOT executes an agreement and issues a notice to proceed are ineligible for reimbursement, as covered in section 1.5.2 below.

1.5.2 Reimbursement

Local agencies receive funding from MaineDOT through reimbursement, at rates ranging from 50 percent on most state-funded projects to 80 percent or more on federally funded projects.

Local agencies must cover the remaining amounts as their matching shares. Match generally must be *cash*; in-kind work is not eligible to use as match unless a local agency receives written approval up front from MaineDOT, as described in Chapter 9 of this Manual, "Force Account Work."



Costs eligible for reimbursement:

- Development of project plans, specifications and contract documents;
- Environmental review and permitting;
- Survey and right-of-way;
- Utility coordination;
- Project advertisement;
- Construction; and
- Construction oversight and inspection.

☒ Costs not reimbursable:

- Expenditures incurred *before* MaineDOT issues notice to proceed;
- Local administrative time that should be accounted for in an agency’s overhead costs;
- Costs *not* approved by MaineDOT or the U.S. Department of Transportation;
- Pre-construction work – if an organization cancels a project *before* construction; and
- Maintenance work on a completed project.

1.5.3 Invoices

Invoices requesting reimbursement should be submitted to a MaineDOT project manager at regular intervals, typically quarterly. They must include the following information:

- Communication 4 (found on page 1-24) with service dates and the amount requested.
- A progress report describing work performed during the invoice period;
- A completed worksheet (found on page 1-25) with the following:
 - Accumulative total invoiced to date, showing MaineDOT and local shares;
 - Copies of invoices from contracted agents, with a detailed breakdown of the costs;
 - Copies of checks issued for work performed during the service period;
 - Signed payroll register, showing hours worked with rates and overhead for each employee – if design work was performed by municipal staff.

1.5.4 MaineDOT Internal Costs

MaineDOT staff will charge their time to projects for work on the tasks listed in section 1.4, “MaineDOT Responsibilities.” Although the hours logged to each project will vary, MaineDOT costs generally will account for 10 percent to 15 percent of the budget for a locally administered project – and possibly more if MaineDOT must acquire rights-of-way. The estimated cost of such work should be determined in consultation with MaineDOT before a project is kicked off.

The number of hours that MaineDOT charges to a project often depends on the amount of time spent assisting the sponsoring municipality and its contracted agents with meeting federal and state requirements. In general, the better job that an agency does in meeting these requirements, the less time that MaineDOT staff will have to charge to the project.

(There are exceptions, primarily for projects funded through MaineDOT’s competitive state grant programs. MaineDOT will cover such exceptions during kickoff for a specific project.)

When MaineDOT bills time to a project, those charges are subject to the same cost-sharing ratios as other portions of the project. The local share of MaineDOT’s costs for services performed typically is reconciled upon completion of the work and deducted from the final reimbursement payment to the local agency in charge of a project.

1.5.5 Repayment of Funds

If a local agency withdraws from or fails to deliver a locally administered project to construction, MaineDOT will require the agency to return all payments toward the project and to reimburse MaineDOT for its costs, as covered previously in section 1.5.4, “MaineDOT Internal Costs.”

Additionally, MaineDOT may recover reimbursements for activities subsequently determined to be ineligible for federal or state funding, as may occur if a project is audited after completion.

If MaineDOT must recover funds, MaineDOT will send a letter specifying the amount of the repayment and the reason for it. MaineDOT will expect the local agency receiving the letter to comply or to respond within a specified time.



If a local agency fails to repay funds, after receiving a request to do so, MaineDOT may exercise its rights of set-off to recover the money. MaineDOT, for example, could withhold or reduce Local Road Assistance payments to recoup an amount owed.

1.5.6 Internal Controls

Local agencies must ensure that they properly account for federal and state awards, and that they protect those funds against loss from unauthorized use. This section provides guidance on steps local agencies can take to improve their financial practices to guard against waste, fraud and abuse – known as internal controls.

Segregation of duties reduces the risk of error or fraud by one person. For this reason, more than a single employee should complete and approve tasks involving payments, booking into the general ledger, and financial reconciliations. A person who initiates a purchase requisition, for example, should not also be able to approve it.

Local agencies should have at least two of the following staff members review and sign off on their financial transactions:

- Treasurer;
- Finance director;
- Town manager / town administrator;
- Finance Committee;
- Board of Selectpersons.



Additionally, MaineDOT recommends that local agencies receiving federal and state funds have written procedures for the following activities, at a minimum, which should be prepared in consultation with a certified public accountant:

- Segregation of federal and state funding into separate general-ledger accounts;
- Reconciliation of general-ledger cash accounts to bank statements;
- Approval of bank reconciliations by a supervisor;
- Reconciliation of subsidiary ledgers to the general ledger, with manager signatures for:

- Accounts receivable;
 - Accounts payable;
 - Capital assets, including non-cash government funded assistance;
 - Prepaid expenses;
 - Accrual accounts.
- Posting of an auditor’s adjusting entries for the previous year;
 - Reconciliation of a closing trial balance to an auditor’s adjusted trial balance;
 - Requiring signature approvals for any adjusting general journal entries;
 - Requiring employee and supervisor signatures on timesheets before payroll approval;
 - Requiring additional supervisor approval for recording large payments and expenses;
 - Having in place monthly and year-end financial closing procedures;
 - Undertaking monthly and yearly detailed review of direct project costs and indirect costs;
 - Limiting the access to an organization’s electronic accounting system, if applicable.

1.6 Single Audit Requirement

A local agency that expends at least \$750,000 in federal funds in a fiscal year must have an annual single audit performed, in accordance with the regulations found in 2 CFR, Part 200, “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.” If unsure, an agency should check with its accountant to determine if expenditures meet the minimum reporting requirements.

A local agency should hire a certified public accountant to conduct this audit, if required, and prepare an audit report. The audit typically will look at the adequacy of an agency’s internal controls that safeguard assets and ensure compliance with federal laws and regulations.



A single audit requires a Schedule of Expenditures of Federal Awards (SEFA), which:

- Summarizes all federal grants received and the expenditures associated with each one, including the Catalogue of Domestic Assistance (CFDA) number for each award; and
- Shows the expenditures for each federal grant received, regardless of size – including reimbursement payments from MaineDOT for work on federal-aid projects.

A single audit concludes with the auditor’s report addressing the reliability of the financial data, adequacy of internal controls, and compliance with federal regulations. The final audit package will include the audit report as well as financial statements, Schedule of Federal Expenditures, results of previous audits, and any planned corrective actions. When completed, the single audit package is submitted electronically to the Federal Audit Clearinghouse website, with required certifications from the organization and its accountant.

1.7 Record-Keeping

A local agency must retain records for completed projects to demonstrate compliance with federal and state requirements, in case of audit. Such documentation would include, but would not be limited to, the following:

- Copies of authorizations from MaineDOT;
- Records detailing payments to consultants and contractors, with backup documentation;
- Copies of agreements with MaineDOT;
- Copies of contracts with consultants and contractors, including all modifications;
- Copies of reimbursement requests to MaineDOT, with all backup information;
- Records from the right-of-way process, demonstrating compliance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970;
- Copies of certification statements for utilities, environment, and right-of-way;
- Approvals from MaineDOT at final PS&E, Project Advertise, and Project Award.
- Documentation of the bidding process, including bid tabulations and determination of the lowest responsive and responsible bidder;
- Confirmation that construction workers on a federally funded project were paid prevailing-wage rates, as required by the federal Davis-Bacon Act;
- Documentation that quantities of construction materials were measured in the field, recorded and verified against contractor invoices;
- Copies of construction contract modifications, construction field books and other records of activities used to track construction activities.

The U.S. Government requires records to be kept for **3 years** after payment of a final invoice. MaineDOT recommends that local agencies retain records for at least 5 years, since an audit may take place long after the work is completed.

1.8 Project Evaluation

Upon approval of the final invoice for a project, MaineDOT's project manager completes an evaluation of the local project administrator assessing which tasks were handled well and which ones could be improved. The local project administrator is given *two weeks* to offer comments and sign the form; if the deadline passes without a response, the evaluation is finalized unsigned.

When completed, signed evaluation forms are filed at MaineDOT as reference documents for use in evaluating requests for future locally administered projects.

FIGURE 1.1: PROJECT FLOWCHART

Locally Administered Project – Process Flowchart

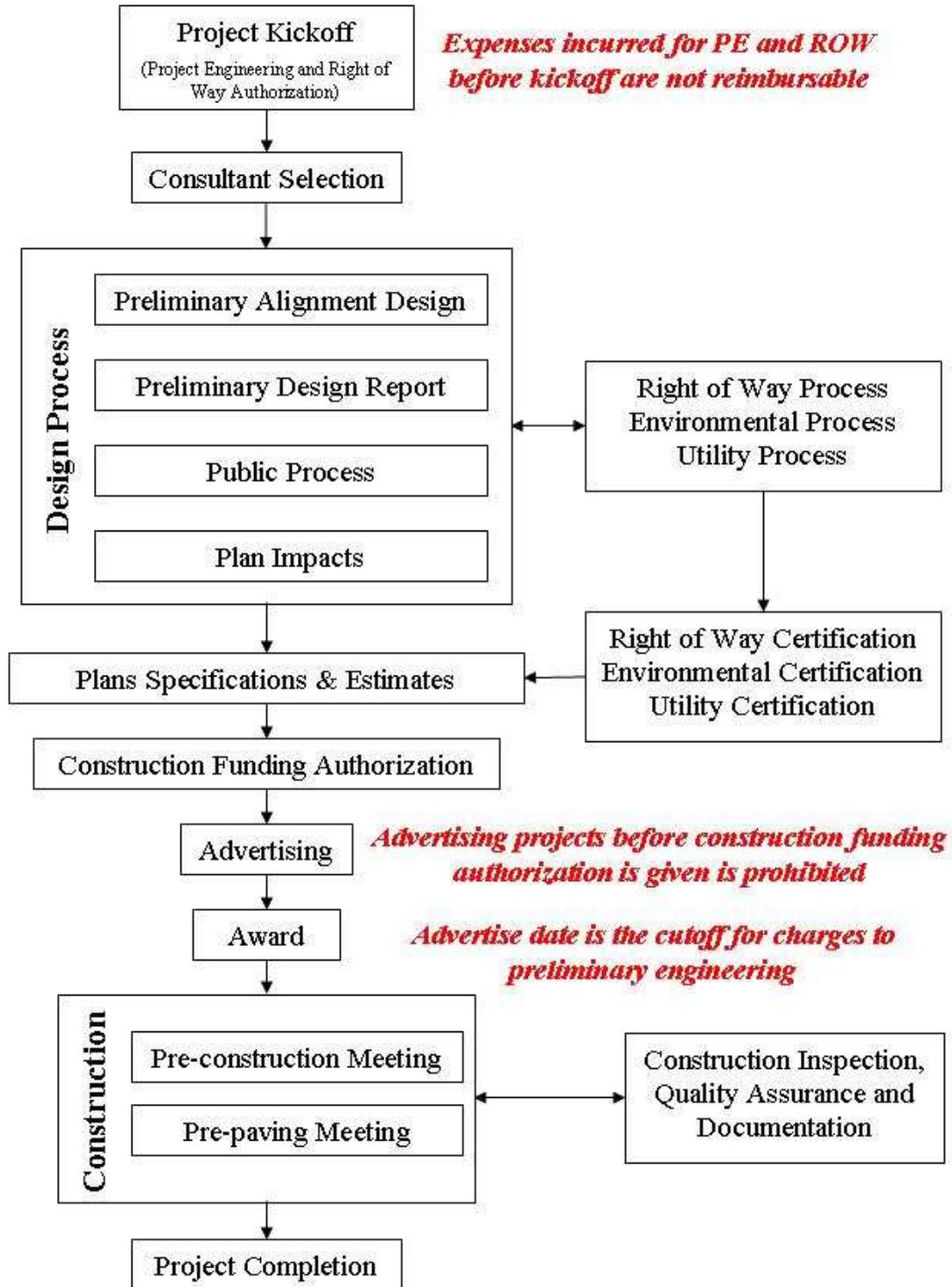


FIGURE 1.2: PROJECT TIMETABLE

TASK	DESCRIPTION	TYPICAL TIMEFRAME
Funding Award	MaineDOT or a Metropolitan Planning Organization (MPO) awards funding.	Award is made 6 to 9 months after an application is received.
Agreement	Municipality and MaineDOT sign agreement.	Agreement is executed after a project is placed in federal STIP (federal funds) or MaineDOT Work Plan (state funds).
Kickoff	Municipality and MaineDOT review budget, schedule and requirements.	Parties hold kickoff meeting once agreement is signed.
Consultant Selection	Municipality hires design consultant – if a consultant will be used.	It can take 2-3 months from kickoff to solicit proposals, score them and negotiate a contract.
Preliminary Engineering	<ul style="list-style-type: none"> ▪ Preliminary Design Report Milestone ▪ Plan Impacts Complete Milestone 	PE may take from 9 months to as many as 18 to 24 months from kickoff, depending on scope.
Environmental Review	Consists of reviews for impacts to natural and cultural resources, as mandated by the National Environmental Policy Act (NEPA)	NEPA may take from 3 months to 9 months from the milestone of Plan Impacts Complete.
Right of Way	Consists of mapping property impacts, researching titles, performing appraisals and appraisal reviews, negotiating with owners, and acquiring rights.	This may take 8-10 months from Plan Impacts Complete. No negotiating with owners until NEPA process is completed.
Final PS&E	Municipality submits final design plans, specifications and construction cost estimate (PS&E) to MaineDOT for review, comment and acceptance.	Projects reach this stage in as few as 12 months or as many as 24 months. MaineDOT review may take 2-4 weeks.
Advertise	After receiving MaineDOT’s authorization, a municipality solicits for construction bids.	A 3-week advertise period is standard, after authorization.
Contract Award	Municipality awards a contract to the lowest responsive and responsible bidder.	Municipality has 30 days after bid opening to award a contract.
Construction	This stage consists of construction, inspection of the work, and materials testing.	The duration will vary, depending on the complexity of a project.
Completion	MaineDOT, Municipality and contractor inspect the project and develop a “punch list” of items the contractor must address.	Inspection should take place before contractor completes work. MaineDOT requires notice of at least 2 weeks.
Closeout	MaineDOT reconciles costs, including local share of MaineDOT’s charges if applicable. Municipality submits final invoice.	Records must be kept for 3 years after payment of final invoice.

Appendix 1A: Project Checklist



Checklist: Locally Administered Project

(Revised, September 2019)

Municipality: _____ Project Location: _____

MaineDOT WIN: _____ Local Administrator: _____

Federal Share: _____ State Share: _____ Local Match: _____

PROJECT KICKOFF

- Project part of approved Statewide Transportation Improvement Program (*federal funds*).
- Project Agreement executed as of: _____
- Kickoff meeting held with MaineDOT on: _____
- Invoices are submitted periodically to MaineDOT project manager using *Communication 4*.

CONSULTANT SELECTION

- Develop scope of work and independent estimate.
 - Send scope and estimate to MaineDOT project manager for review and approval.
 - *Approval Date:* _____

Services estimated to cost \$25,000 or less:

- Obtain MaineDOT project manager's approval to use simplified acquisition (*Communication 5*).
 - *Approval Date:* _____
- Request/receive proposal from a single, pre-qualified consultant.
- Negotiate scope, schedule and cost, based on independent estimate.
- Verify that consultant is not debarred (www.sam.gov).
- Obtain MaineDOT's approval of consultant proposal and unsigned contract (*Communication 7*).
 - *Approval Date:* _____
- Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.

Services estimated to cost \$25,000 to \$250,000:

- Submit draft RFP to MaineDOT project manager for approval (*Communication 6*).
 - *Approval Date:* _____
- Send RFP to 3-5 pre-qualified firms, seeking from each a technical and a sealed price proposal: www.maine.gov/mdot/cpo/prequal/
- Score technical proposals and conduct interviews, if needed to choose best-qualified firm.
- Unseal the price proposal from the highest-ranked (No. 1) consultant and negotiate a contract.
 - If negotiations with No. 1 are successful, draft a contract for MaineDOT review
 - If negotiations with No. 1 are unsuccessful, request a Best and Final Offer.
 - If terms cannot be reached, terminate negotiations and move on to No. 2 consultant.
- Once terms are reached, verify that selected consultant is not debarred (www.sam.gov).
- Send unsigned contract and price proposal to MaineDOT for approval (*Communication 7*).
 - *Approval Date:* _____
- Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.
- Send regret letters and unopened price proposals to proposers not chosen.

Services estimated at greater than \$250,000:

- Submit draft RFP to MaineDOT project manager for approval (*Communication 6*).
 - *Approval Date:* _____
- Advertise the RFP, requesting from each firm a technical proposal and a sealed price proposal.
- Score technical proposals and conduct interviews, if needed to choose best-qualified firm.
- Unseal the price proposal from the highest-ranked (No. 1) consultant and negotiate a contract.
 - If negotiations with No. 1 are successful, draft a contract for MaineDOT review.
 - If negotiations with No. 1 are unsuccessful, request a Best and Final Offer.
 - If terms cannot be reached, terminate negotiations and move to No. 2 consultant.
- Once terms are reached, verify that selected consultant is not debarred (www.sam.gov).
- Send unsigned contract and price proposal to MaineDOT for approval (*Communication 7*).
 - *Approval Date:* _____
- Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.
- Send regret letters and unopened price proposals to proposers not chosen.

PRELIMINARY DESIGN

- Utility Coordination:**
 - At start of design, identify utility/railroad contacts: www.maine.gov/mdot/utilities/contactinfo/.
 - Email Utility Letter #1 and a location map to utility/railroad contacts.
- Survey / Existing Conditions Plan:**
 - Preliminary project limits identified.
 - Property ownership reports sent to property owners.
 - Significant property improvements mapped based on field information gathered.
 - Upon completion of survey, email Utility Letter #2 and topographical survey plans to contacts.
- Advertised public meeting held on:** _____
- Preliminary Design Report (PDR) completed – 50-60% plans:**
 - PDR prepared on MaineDOT form and sent to MaineDOT project manager (*Communication 8*).
 - MaineDOT comments addressed, if any.
 - PDR accepted and filed by MaineDOT project manager as of: _____
 - Email Utility Letter #3, preliminary plans and schedule to utility/railroad contacts for review.
- Upon approval of PDR, provide MaineDOT project manager with:**
 - Public process certification (*Communication 10*).
 - Completed NEPA Documentation Checklist (*Communication 11*).
- Environmental permits:**
 - Contact state and federal agencies for permitting requirements, beyond federal NEPA process:
 - U.S. Army Corp of Engineers: (207) 623-8367 or <http://www.nae.usace.army.mil/>.
 - Maine Department of Environmental Protection:
 - (207) 287-7688 or <http://www.maine.gov/dep/permits/index.html>.
- Complete state and federal permit applications that apply to the project.**
 - Obtain all permits, beyond the federal NEPA process.

FINAL DESIGN

- Design Plan Impacts completed (75-80% plans).**
 - Plan impacts submitted to MaineDOT project manager (*Communication 9*).
 - MaineDOT comments addressed, if any.
 - Plan impacts accepted as complete by MaineDOT project manager on: _____.
- Utilities – when design reaches 75-80% plans complete:**
 - Email Utility Letter #4, 75-80% plans and schedule to utility/railroad contacts for review.
 - Hold utility pre-coordination meeting on site to review impacts, relocations and schedules.
 - Prepare pole list in coordination with utilities.
 - Email Utility Letter #5 and utility special provision (#104) to utilities/railroad for review.

RIGHT OF WAY

- Preliminary right-of-way mapping performed.**
 - MaineDOT must approve *Plan Impacts Complete* to start preliminary right-of-way mapping.
 - Preliminary mapping identifies type and extent of rights to build and maintain project.
 - Parcel setups identify owner, parcel size, and type and area of rights to be acquired.
- Title examinations performed, once preliminary mapping completed.**
 - Title searches are conducted at county registries of deeds for impacted properties.
 - Title examinations must meet standards established by the Maine Bar Association.
- Final right-of-way mapping performed, once title work completed.**
 - Property boundaries and ownership identifications are based on the title searches.
 - Existing and proposed right-of-way limits shown on the maps.
 - Property pins are located on the maps.
 - New rights to be acquired are shown, with areas calculated (MaineDOT Standards).
 - Plan title block included, with MaineDOT file number, if applicable.
 - Right-of-way maps reviewed by MaineDOT Property Office (if state highway).
 - Maps approved by MaineDOT Property Office (if state highway) on: _____.
- Notice of Intent to Acquire sent to the owner of each impacted parcel.**
- Agency contracts with professional appraiser on MaineDOT Appraisal Register.**
 - Property owners are notified of their right to accompany the appraiser during the inspection.
 - Appraisal report submitted on: _____.
- Review appraiser retained to review appraisals for proper methodology and accuracy.**
 - Reviewer must recommend, accept, or not accept each appraisal.
- Determination of Just Compensation made [MaineDOT Right-of-Way Manual, §8-2.03].**
 - Value estimates are recommended as the amount believed to be Just Compensation.
- Written statement of Just Compensation is signed by highest ranking administrative officer.**

➔ *The federal NEPA process must be completed before proceeding further.*

- Upon completion of NEPA process, property donations made**, if applicable.
 - Each donating owner informed of right to receive just compensation.
 - Each donating owner signs form acknowledging right and releasing agency from its obligation.
- Qualified negotiator retained to negotiate just compensation with each property owner.**
- Upon completion of NEPA process, right-of-way negotiations initiated:**
 - Negotiator presents Offer of Just Compensation in writing and explains need for acquisition.
 - Negotiator gives each owner a minimum of 28 days to consider the offer and respond.
 - After 28-day period, negotiator notes if Negotiations Completed or Negotiations at Impasse.
 - If settlement by negotiation is not feasible, rights should be acquired by eminent domain.
- Upon conclusion of negotiations process:**
 - Agency sends each owner a check for the settled amount or – in cases not settled by negotiation – the agency’s approved determination of just compensation.
- Acquiring agency certifies the right-of-way (Communication 14).**
- Unsettled claims appealed to State Claims Commission (state) or Superior Court (local).**

FINAL PLANS, SPECIFICATIONS AND ESTIMATE

- Utility Coordination tasks at PS&E:**
 - Email final design plans and latest schedule to utility/railroad contacts.
 - Finalize special provision 104 (utilities) for inclusion in the bid documents.
- Final design plans checked for the following details:**
 - Title sheet;
 - Plan views and profiles;
 - Cross-sections and typical sections;
 - Documentation of approved design exceptions;
 - PE stamp of engineer of record.
- Engineer’s estimate completed**, as follows:
 - Estimate uses MaineDOT item numbers.
 - Each item in engineer’s estimate is shown on the plans.
 - Estimate of quantities matches Schedule of Items in contract book.
- Bid book contains the following standard items:**
 - Notice to Contractors;
 - Contract Agreement, Offer and Award form;
 - Sample contract performance and payment bond forms;
 - Schedule of Items, with MaineDOT item numbers;
 - Davis-Bacon federal prevailing wage rates (*federally funded projects*);
 - Maine Department of Labor wage rates (*projects of \$50,000 or more having any state funds*);
 - Special provision 104 (utilities), if applicable;
 - Special provisions 401 and 403 (pavement) from MaineDOT, if applicable;
 - Form FHWA-1273 (*federally funded projects*);
 - Title VI Assurances signed by highest-ranking administrative officer (*federally funded projects*);
 - Environmental summary sheet prepared by MaineDOT (*federally funded projects*).

- PS&E package approved by MaineDOT project manager. Package contains:**
 - Public process certification (*Communication 10*);
 - Environmental certification (*Communication 12*);
 - Utility certification (*Communication 13*);
 - Right-of-Way certification (*Communication 14*);
 - Traffic Analysis and Movement Evaluation (TAME) certification received from MaineDOT.
- Construction authorization requested from MaineDOT (*Communication 15*).**
- Construction authorization obtained from MaineDOT project manager in writing.**

ADVERTISE AND AWARD

- Receive written authorization to advertise from MaineDOT project manager.**
- Advertise the Notice to Contractors** (3-week minimum advertise period).
 - Bidders must submit questions in writing using Request for Information (RFI) form.
 - Issue addendum, if documents are modified or if answering an RFI.
- Open and publicly read aloud all bids at the designated time.**
 - Prepare bid tabulation sheet.
 - Determine the lowest responsive bid.
- Review all bids for bid defects**
 - Go by the curable/non-curable language in MaineDOT Standard Specification 102.11.
 - Verify that contractors are licensed as legally required by the State of Maine.
- Determine the apparent successful bidder**
 - Return bid securities to everyone except for the two lowest bidders.
 - Notify the second bidder that securities will be held until contract execution.
- Send award recommendation (*Communication 16*) to MaineDOT project manager with:**
 - Tabulation of bids;
 - Engineer's estimate;
 - Completed Contractor DBE Utilization Form (*federally funded projects*).
- Receive MaineDOT approval in writing of recommended award.**
- Award contract**, in accordance with section 103 of MaineDOT's Standard Specifications:
 - Send Notice of Intent to Award to apparent successful bidder.
 - If contract exceeds \$125,000, bidder has 14 days to deliver payment and performance bonds.
 - Bidder also must provide certificate of insurance, which applies to all projects.
 - Sign contract.
 - Return bid securities to the first and second bidders.
 - Notify all unsuccessful bidders.
- Send copy of signed construction contract to MaineDOT project manager.**

(This space intentionally left blank)

CONSTRUCTION ADMINISTRATION

- Obtain minimum materials testing requirements from MaineDOT project manager:**
 - PM sends plans, specifications and estimated quantities to technician Jean Tukey: 624-3543.
- Send award information to MaineDOT to set up project in the Elation payroll system.**
 - Prime contractor and all subcontractors must be set up in the Elation system.
 - MaineDOT contact is Angela Latno: (207) 624-3519 or Angela.Latno@maine.gov

Pre-Construction / Pre-Utility / Pre-Pave Meeting

- Send notice of meeting and agenda (Communication 17) to the following:**
 - Contractor;
 - Utilities;
 - Construction resident;
 - MaineDOT project manager and construction manager;
 - Public safety agencies, if warranted, such as in case of detours.
- Meeting Held / Minutes Distributed.**
- Contractor schedule received.**
- Quality Control (QC) Plan and Mix Designs received from Contractor.**
 - Contractor must submit them at least 30 days before the work is scheduled to begin.
 - Submit to MaineDOT construction manager for review and approval.
- Contractor Traffic Control Plan:**
 - Submitted to MaineDOT Traffic Section (Dana Hanks).
 - *MaineDOT Approval Date:* _____.
- Contractor Soil Erosion Water Pollution Control Plan approved by project resident.**

Construction Testing & Documentation

- Project Field Book created to record the following information:**
 - Entries dated and initialed – noting weather, crew & equipment, hours worked, and activities;
 - Field measurements taken;
 - Drainage work measurements performed and computations by stationing, from outlet to inlet;
 - Details of grade checks done (subgrade and/or fine-grading) for each day;
 - Noteworthy events (accidents, discussions with owners, debates with contractor).
- Pit authorizations completed.**
- Waste area agreements completed.**
- Project bulletin board erected:** <https://www.maine.gov/mdot/civilrights/sfp/>
 - Condition of signage must be noted weekly in a project field book.
- Materials testing files set up for:**
 - Aggregate;
 - Concrete;
 - Pavement; and
 - Other required documents for minimum testing.

- Quality Assurance (QA):**
 - Municipality may hire consultant or use MaineDOT testing labs.
 - If Municipality will use MaineDOT labs, contact MaineDOT independent assurance supervisor in the Bangor region office: 941-4545.
 - MaineDOT contacted to see if Hot Mix Asphalt / Portland Cement Concrete plant has been inspected recently or needs to be inspected: Kevin.cummings@maine.gov
 - MaineDOT notified of pavement and concrete placement schedules to ensure that plant QC operations are monitored and scales checked at least twice in five days of production.
- Subcontractor Approvals:** <https://www.maine.gov/mdot/contractors/publications/>
 - Municipality must approve subcontracts before any subcontractor can start work.
 - Send copy of approved package to the MaineDOT project manager.
 - *Project manager will arrange for the subcontractor to be added to the Elation system*
- Federal projects: Weekly certified payrolls received electronically from all contractors.**
 - Certified payroll checked in Elation system for compliance with minimum wage rates.
- Federal projects: Employees interviewed to verify Davis-Bacon wage rate compliance.**
 - Voluntary interviews held every 90 days with 2 covered workers from the following:
 - Prime contractor and all subcontractors on site at least 5 days during a 90-day period.
- Federal Projects: “Commercially Useful Function Form” sent to MaineDOT, if applicable.**
- Federal Projects: “Buy America” (Special Provision 105).**
 - “Buy America” certifications must be received before steel and iron products are installed.
- Progress payments to contractor:**
 - Prepare estimate and review with contractor; or receive and check estimate from contractor.
 - Once approved, process estimate and send payment to contractor.
 - Once payment is made, send reimbursement request with backup to MaineDOT.
- Final Quantity Book created:**
 - Book set up by item numbers;
 - Pages set up for original measurements (or computations from plan dimensions);
 - Pages set up with a total-to-date column;
 - Entries and computations initialed and dated;
 - After item is completed, compute final quantity.

Contract Modifications

- Modifications to the construction contract are handled as follows:**
 - Prepare an independent cost estimate for the additional work.
 - Note the time associated with the change. (If no change, note 0 additional days.)
 - Send modification to MaineDOT construction manager for review (***Communication 18***).
- Obtain MaineDOT’s concurrence with contract modification.**
- Send modification to the contractor for signature.
- When contractor has signed, local project administrator signs and dates the modification.
- Send copy of the executed modification to the contractor, with a copy to MaineDOT.

Project Completion

- Final inspection by Municipality, MaineDOT and contractor (Communication 19).**
 - Inspection Date: _____.
 - Final “punch list” of items completed on: _____.
- Notice of completion sent to contractor with notification of any liquidated damages.**
 - Copies sent to MaineDOT project manager and construction manager.
- Quality Assurance (QA) Certification completed.**
 - Testing file provided to municipality’s project administrator for project files.
- Final quantity book completed by project resident.**
- Federal projects: DBE Form completed by the contractor, signed by each DBE**
 - MaineDOT project manager will forward to MaineDOT’s Civil Rights Office.
- Final estimate paid and retainage released.**
- As-built plans completed and sent to MaineDOT project manager (if applicable).**
- Evaluation of each consultant completed and sent to MaineDOT project manager.**
- Final billing sent to MaineDOT project manager (Communication 20).**
- MaineDOT project manager completes a project evaluation.**
 - Local administrator reviews, signs and returns to project manager.
 - Project manager files the completed evaluation in Tedocs electronic filing system.

Note: By regulation, records must be retained for 3 years from completion for federally funded projects.

Appendix 1B:

Submittals to MaineDOT

- ❑ Electronic templates are posted on MaineDOT's LPA Documents page under the header labeled, "Letters to MaineDOT": www.maine.gov/mdot/lpa/lpadocuments/

Communication 1: Request for Local Project Administration

NOTE: This should be put on letterhead and signed by the manager or highest ranking official

[DATE]

Michael Laberge, Local Projects Coordinator
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Local Project Administration Request

MaineDOT WIN: [Number]; Description: [Brief Description]

Dear Mr. Laberge:

The Municipality of [NAME] is interested in administering a federal-aid project consisting of [DESCRIPTION]. I have enclosed information about the Municipality's qualifications, including our experience in delivering projects of comparable size and scope, and our ability to manage and track federal funds.

If a person with Local Project Administration certification will manage the project, use this:

[NAME] is the full-time employee of the Municipality who would serve as Local Project Administrator for this project. [NAME]'s Local Project Administration certification is valid through [DATE].

If a person without Local Project Administration certification will manage the project, use this:

[NAME] is the full-time employee of the Municipality who we are proposing to serve as the Local Project Administrator for this project. This person is not currently certified in Local Project Administration but would be willing to take the next training program. Please let us know when the program is offered.

If MaineDOT concludes that the Municipality is adequately staffed and suitably equipped to undertake this project, please contact me to discuss the details of the project and the requirements for local administration.

I understand that, if approved, the Municipality will be responsible for meeting all federal and state requirements for this project, as described in the latest edition of the MaineDOT Local Project Administration Manual & Resource Guide.

Sincerely,

[NAME, TITLE]

Communication 2: Project Kickoff

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Project Kickoff, [Project Location, Description]
MaineDOT WIN [NUMBER]

Dear [NAME]:

The Municipality of [NAME] requests your attendance at the kickoff meeting for the above-referenced project at [Date, Time and Location].

Attached is the proposed scope of work, budget and schedule. If you need additional information, please let me know.

We understand that we cannot start work eligible for reimbursement until we take these steps:

1. Hold the kickoff meeting;
2. Execute a Locally Administered Project Agreement with MaineDOT; and
3. Receive notice to proceed from MaineDOT.

We look forward to seeing you at the meeting.

Sincerely,

Local Project Administrator

Enclosures: Project scope, budget and schedule

Communication 3: Agreement Execution

[DATE]

[NAME], Local Projects Coordinator
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Local Project Agreement Execution Request
MaineDOT WIN [NAME]

Dear [NAME]:

Enclosed is one signed and dated copy of the Locally Administered Project Agreement for **[project scope, WIN]** in the Municipality of [NAME].

We understand that MaineDOT cannot reimburse us for project design or right-of-way costs until MaineDOT executes this Agreement and issues us a “Notice to Proceed.”

Please arrange for the agreement to be executed as soon as possible.

Sincerely,

Local Project Administrator

Communication 4: Invoice Submittal (Federal Project)

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Request for Reimbursement, [Location, Description] Project
MaineDOT WIN [NUMBER]; Contract #: [NUMBER]

Dear [NAME]:

The Municipality of [NAME] requests reimbursement of MaineDOT's share of costs incurred for work on the subject project for the service period of [DATE] to [DATE], in accordance with the project agreement with MaineDOT.

Total costs for the period are \$[NUMBER]. MaineDOT's [NUMBER]% share is \$[NUMBER], and payment is requested within 30 days of acceptance of this invoice. Project costs during the period include a local share of [NUMBER] %, or \$[NUMBER], which is not from contributions from other federally assisted projects or programs.

I also have enclosed the items listed below to document that this invoice accurately represents work completed during the service period:

- A completed project costs worksheet with expenditures for the service period and to date;
- A progress report describing the work performed during the service period; and
- Copies of invoices received and checks issued.

By signing this invoice, I certify to the best of my knowledge and belief that the information provided herein is true, complete, and accurate, and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal funding award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812.)

Sincerely,

[NAME], Local Project Administrator

LAP Project Costs Worksheet

Town/City: _____
 PROJECT PIN: _____
 Agreement No: _____
 Invoice Period: From _____ => To _____

PE Auth. Date: _____
 Construction Auth. Date: _____
 Agreement Exp. Date: _____
 Local Share: _____ %

Summary of Project Costs This Period						Total Project Costs This Period	Total Project Costs To Date	Total Project Budget	Project Balance
Direct Salary	Salary Benefits	Employee Travel	Supplies & Materials	Equipment Rental	Contracted Services				
PRELIMINARY ENGINEERING <i>(expenses incurred for PE&ROW are prohibited prior to PE Authorization Date)</i>									
RIGHT OF WAY ACTIVITIES									
CONSTRUCTION ENGINEERING <i>(expenses for PE are prohibited after const contract award or const.auth. date (force account))</i>									
CONSTRUCTION									
PROJECT TOTALS									

BILLING CERTIFICATION =>

I hereby certify that these amounts are correct, due and unpaid and that the work performed is in accordance with provisions and specifications of all project agreements and contracts.

Signed: _____
Name
Title
Date

Communication 5: Request for Simplified Acquisition (Federal Project)

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Simplified Acquisition Request, [Location, Description] Project
MaineDOT WIN:

Dear [NAME]:

The Municipality of [NAME] is requesting your approval to seek a proposal for services for [DESCRIPTION] work on the subject project with the consulting firm of [NAME].

Since consultant costs are estimated to be \$25,000 or less based on our independent estimate (enclosed), we understand that we may use a simplified acquisition to solicit a technical proposal and a price proposal from a single, pre-qualified consultant.

We understand that MaineDOT cannot participate in contract costs exceeding \$25,000, which shall be the sole responsibility of the Municipality, since a non-competitive process will be used to hire this consultant.

Please review the submitted materials and let us know if we are approved to solicit a proposal and subsequently to negotiate a contract with this firm. We understand that we cannot award a contract without approval from MaineDOT.

Sincerely,

[NAME], Local Project Administrator

Enclosure: Independent Estimate

Communication 6: RFP Review

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: RFP Review Request
MaineDOT WIN:

Dear [NAME]:

The Municipality intends to solicit for engineering services for **[scope of services]** for **[project scope, WIN]** in the Municipality of [NAME]. Attached is the Request for Proposals that we intend to use.

If estimated cost is \$25,000 to \$250,000, use the following language:

Based on our independent estimate of the price of the proposed services (enclosed), we understand that we may select potential consultants from a pool of 3 to 5 pre-qualified firms. We intend to send the RFP to the following consultants listed on MaineDOT pre-qualification listing for [insert type of service]:

If estimated cost is greater than \$250,000, use the following language:

Based on our independent estimate of the price of the proposed services (enclosed), we understand that we must use a publicly advertised solicitation in accordance with the federal Brooks Act. We intend to advertise the RFP on **[date]** as follows:

Please review the draft RFP as soon as possible and inform me as to its adequacy.

Sincerely,

[NAME], Local Project Administrator

Enclosure: Draft RFP

Communication 7: Request for Approval of Consultant Selection

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Consultant Selection Approval Request
MaineDOT WIN:

Dear [NAME]:

The Municipality of [NAME] has selected [NAME] for **[scope of services]** work for **[project description]**. Attached is the negotiated contract, price proposal and our independent estimate. We understand that we cannot award this contract without your approval.

We have verified that our selected consultant is not debarred or otherwise prohibited from working on federally funded contracts. We have attached documentation verifying this, in the form of a screen shot from the federal SAM database: www.sam.gov.

Please review these documents as soon as possible and inform me of your decision so that we may execute a contract with this firm. We understand that no work eligible for reimbursement may begin until we execute the contract upon MaineDOT's approval and give our selected consultant notice to proceed.

Sincerely,

[NAME], Local Project Administrator

Enclosures:

1. Draft contract
2. Independent estimate

Communication 8: Submittal of Preliminary Design Report

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Preliminary Design Report (PDR) Submittal, [Project Location and Description]
MaineDOT WIN:

Dear [NAME]:

Attached for your review and comment is the draft preliminary design report for *[insert project scope, WIN]* in the Municipality of [NAME]. Quality-control design checks were performed by [NAME, TITLE].

The design was developed in accordance with appropriate sections of MaineDOT's Engineering Instructions, Highway Design Guide and Standard Details. The following publications also were used: *[list any additional publications; otherwise, delete this sentence.]*

If design exceptions:

The following design exceptions were approved by MaineDOT on *[Date]* and are noted on the plans:

If no design exceptions:

This project will not require exceptions to controlling standards for project design.

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

Local Project Administrator

Communication 9: Submittal of Design Plan Impacts

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Design Plan Impacts Submittal, [Project Location and Description]
MaineDOT WIN:

Dear [NAME]:

Attached for your review and comment are the draft design plan impacts for [DESCRIPTION] in the Municipality of [NAME]. Quality-control design checks were performed by [NAME, TITLE].

The plans show all impacts to utilities and abutting properties, as well as cross-sections with proposed limits of slopes and new construction. These plans meet standards specified in the MaineDOT Right of Way Manual (December 2015), specifically Table 2-3, “Design Plan Impacts Complete,” found on page 2-6(6).

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

[NAME], Local Project Administrator

Communication 10: Public Process Certification (Federal Project)

INSTRUCTIONS: This must be submitted on letterhead to MaineDOT with Communication 11.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification, Federal Project
MaineDOT WIN:

Dear [NAME]:

The Municipality of [NAME] certifies that a public process was carried out for the subject project in accordance with Title 23 in the Code of Federal Regulations, Part 771.111, satisfying one of the pre-construction requirements in the executed project agreement with MaineDOT.

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

I have attached for your information the following:

- A copy of the notification that was sent to abutters by registered mail;
- A copy of the meeting notice;
- The sign-in sheet; and
- The meeting minutes.

Sincerely,

[NAME], Local Project Administrator

Communication 11: Submittal of NEPA Documentation

INSTRUCTIONS: This letter and the checklist on the next page should be provided to MaineDOT's Environmental Office when MaineDOT approves the Preliminary Design Report.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: NEPA Documentation, Federal Project
MaineDOT WIN:

Dear [NAME]:

Attached is the required NEPA documentation checklist for the [LOCATION, SCOPE] Description] project in the Municipality of [NAME].

Also attached is Communication 10, certifying that the Municipality conducted a public process in accordance with requirements identified in the project agreement with MaineDOT.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Enclosures:

- NEPA documentation checklist
- Public process certification (Communication 10)

Note: This checklist must be submitted with Communication 11

NEPA DOCUMENTATION

For the Maine Department of Transportation, Federally Funded Projects

Project Title & Location: _____

Federal Project #: _____ MaineDOT WIN: _____

Description of Work: _____

MaineDOT Project Manager: _____

Answer the following questions and attach supporting documentation as requested. If there is a “yes” response, explain on a separate sheet or contact your MaineDOT Project Manager for guidance.

1.) Public Involvement: Is there substantial public opposition to proposed action? Yes No
The answer should become apparent at a public meeting approving the project.

Documentation: Approved capital plan; meeting records; letters from the public; board meeting minutes; or Communication 10 (Public Process).

2.) Right-of-Way: Does action include a residential or commercial displacement, Yes No
or acquisition of property rights that will result in substantial abutter impacts?
For help with “substantial,” contact your Project Manager at MaineDOT.

Documentation: Plan Impacts Complete for the project (Communication 9)

3.) Endangered Species & Essential Fish Habitat:

- a. Has a qualified person surveyed the project area for streams, rivers, coastal waters, wetlands, and vernal pools? Yes No
- b. Were streams, rivers, coastal waters / wetlands, freshwater wetlands, or vernal pools identified? Yes No
- c. Is any work proposed in or adjacent to a stream, river or coastal waters? Yes No
- d. Does the project require clearing trees or trimming limbs 3” or greater in diameter? Yes No

Documentation: Resource delineation and plans with location of resource and work planned. If in-water work is proposed, project will be screened by the MaineDOT Environmental Office for intersection with habitat for endangered species and critical fish. Additional coordination with the Environmental Office will be required if the project is in one of these areas and includes in-water work or involves clearing.

4.) section 4(f) or 6(f):

- a. Does project area include or abut resources protected by section 4(f) of the Department of Transportation Act: publicly owned land, parks, recreation areas, wildlife and waterfowl refuges, or historic sites? Yes No
- b. Will project require temporary or permanent rights on any protected 4(f) resource listed above? Yes No

Documentation: Existing and proposed right-of-way plan, and a description of how impacts to these properties were avoided and minimized.

Signed by: _____

Date: _____

[Name, Local Project Administrator]

Communication 12: Environmental Certification

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

**Subject: Environmental Certification, Federal Project
MaineDOT WIN:**

Dear [NAME]:

If permits were required, use this paragraph:

The Municipality of [NAME] certifies that it has obtained all permits and approvals necessary to carry out the subject project, satisfying one of the pre-construction requirements in the executed project agreement with MaineDOT. Attached are copies of the permits, which are required for MaineDOT to complete the Environmental Summary Sheet for the contract package.

If NO permits were required, use this paragraph:

The Municipality of [NAME] certifies that no permits were needed for the subject project. This certification satisfies one of the pre-construction requirements in the executed project agreement with MaineDOT. ***NOTE: If no permits were required, please briefly explain.***

Sincerely,

[NAME], Local Project Administrator

Cc: MaineDOT Environmental Office

Communication 13: Utility/Railroad Certification

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[DATE]

[NAME], Project Manager
Maine Municipality of Transportation
Bureau of Project Development, Multimodal Program
16 Sate House Station
Augusta, ME 04333-0016

Subject: Utility Certification, Federal Project, MaineDOT WIN:

Dear [NAME]:

The Municipality of [NAME] certifies that all utility and railroad work necessitated by the subject project has been identified and coordinated with the respective parties. All arrangements have been made for utility work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with Title 23 in the Code of Federal Regulations, Part 645, "Utilities," Subpart A and Subpart B.

Based on 23 CFR 635.309(b), the Municipality further certifies either that all railroad work has been completed or that all arrangements have been made for such work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with 23 CFR 140 Subpart I and 23 CFR 646 Subpart B.

Listed below are utilities/railroads having facilities within the project limits:

<u>Utility/Railroad</u>	<u>Impacted facilities? (yes/no)</u>
--------------------------------	---

All of the above entities were first informed of the project on [DATE], were involved as necessary throughout design, and received the most current plans on [DATE]. Furthermore, the above entities have been informed of the proposed advertising date: [DATE]. There are no direct payments anticipated to utilities/railroads as a part of this project.

The primary utility/railroad contacts involved in the coordination of this project are as follows:

<u>Utility/Railroad</u>	<u>Contact Name</u>	<u>Telephone #</u>
--------------------------------	----------------------------	---------------------------

Sincerely,

[NAME], Local Project Administrator

Communication 14: Right-of-Way Certification

INSTRUCTIONS: If a local agency took the lead on the right-of-way process, this letter must be signed by the agency's highest-ranking administrative officer and submitted with the attached certificate to MaineDOT with the final PS&E package for a project.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification, Federal Project
MaineDOT WIN:

Dear [NAME]:

If right-of-way was acquired, use this statement:

Attached is the required certification that all right-of-way necessary for construction and maintenance of [PROJECT] in the Municipality of [NAME] has been acquired, in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the executed Project Agreement with MaineDOT dated [DATE]. The Municipality certifies that it has legal and physical possession of all right-of-way needed for the project.

If NO right of way was required, use this statement:

The Municipality of [NAME] certifies that no right-of-way acquisition was required for the subject project, since all planned work will occur within the exiting public right-of-way. If you require additional information, please let me know.

All information about the right-of-way process can be made available upon request. If you need additional information, please let me know.

Sincerely,

[NAME], Highest-ranking administrative officer

Enclosure: Right-of-way certificate

MUNICIPALITY OF _____

RIGHT OF WAY CERTIFICATE

FEDERAL PROJECT		WIN	
-----------------	--	-----	--

ROUTE		LOCAL NAME	
-------	--	------------	--

RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:

Property Owners		Fee Simple Parcels		Easement Rights	
-----------------	--	--------------------	--	-----------------	--

Number of Cases

Displacement Summary:

Number Displaced	
Number Relocated	

The Municipality of _____ hereby certifies that the right to occupy and use all the right of way necessary for this project has been acquired by [] deed, [] condemnation or [] permit to work. All right-of-way has been or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property and all relocations have been accomplished.

Without Exception

Legal Possession completed as of

All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by federal regulation.

Signed by:

Highest-ranking administrative officer	Date

Communication 15: Construction Authorization Request

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

**Subject: Construction Authorization Request, Federal Project
MaineDOT WIN:**

Dear [NAME]:

Attached for your review, comment and approval are the final plans, specifications and estimate (PS&E) for [insert project scope] in the Municipality of [NAME].

Also attached are the following certifications:

- Communication 10 (public process);
- Communication 12 (environment);
- Communication 13 (utilities); and
- Communication 14 (right of way).

The Municipality hopes to advertise for construction services on [insert date], but we understand that we cannot put the project out to bid without MaineDOT's written approval.

We further acknowledge that construction authorization will be contingent upon:

1. The Municipality addressing to MaineDOT's satisfaction any final comments on the PS&E package; and
2. MaineDOT obtaining authorization for the construction stage of the project from the Federal Highway Administration.

Sincerely,

[NAME], Local Project Administrator

Communication 16: Project Award Request

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

**Subject: Request to Award Construction Contract, Federal Project
MaineDOT WIN:**

Dear [NAME]:

Attached for your review are the bid tabulations, engineer's estimate and completed Contractor DBE Utilization Form for [SCOPE, LOCATION] in [NAME OF MUNICIPALITY]. [CONTRACTOR NAME] is the apparent successful bidder. We request authorization to award the project to that contractor.

In making this request, we acknowledge that we cannot send out the Notice of Intent to Award without written authorization from MaineDOT.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Enclosures:

1. Bid tabulations
2. Cost estimate

Communication 17: Pre-Construction / Pre-Utility Meeting

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-Construction / Pre-Utility Meeting
MaineDOT WIN:

Dear [NAME]:

Your attendance is requested at the pre-construction / pre-utility meeting for **[insert project scope, WIN]** in the Municipality of [NAME] on **[insert meeting date/time]**. I have attached an agenda for your convenience.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Cc: Jen Paul, Construction Manager, MaineDOT Multimodal Program

**AGENDA ITEMS FOR PRE-CONSTRUCTION MEETING
(Federally Funded Project)**

1. Introductions
2. Review Scope of Project
 - a. Acknowledge Amendments
 - b. Completion Date
 - c. Liquidated Damages
3. Permits Obtained (if required)
4. Construction Safety
 - a. Primary consideration during construction
 - b. Emergency contact list including 24 hour contacts
 - c. Contractor safety plan to be provided
 - d. Traffic Control Plan (TCP) must be reviewed and approved by Maine DOT
5. Schedule for the completion of work to be provided
 - a. Are there utility issues?
 - b. Update schedule as required
 - c. Daily construction activities to be recorded
 - d. Town must pay contractor first, then request reimbursement on a monthly basis
6. Labor Requirements
 - a. Davis-Bacon wage rates apply – if project has federal money
 - b. Certified payrolls with classifications to be submitted & reviewed: Elations
 - c. Payroll labor interviews
 - d. DBE participation & CUF form
7. Construction Control
 - a. Minimum Testing Requirements
 - b. Subcontract Approval (*FHWA-1273 must be inserted in all subcontracts*)
 - c. Measurement & documentation of materials used for payment purposes
 - d. Engineering oversight of activities
 - e. Manufacturer's certification for materials
 - f. Soil Erosion and Water Pollution Plan (SEWPCP)
 - g. Quality control plans, mix design submittals, pre-pave meeting
 - h. Buy America: steel/iron product certifications must be received before payment for that item, if a project has federal money
8. Communications
 - a. Requests for Information (RFIs)
 - b. Change Orders require MaineDOT review; must include detailed description of scope change, independent cost estimate & time
 - c. Notification of anticipated issues, claims or disputes

Communication 18: Contract Modification

[DATE]

Jen Paul, Construction Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Contract Modification Request
MaineDOT WIN:

Dear [NAME]:

Attached for your review is Contract Modification # _____ for **[insert project scope]** in the Municipality of [NAME]. The change will consist of **[insert description of contract modification including scope change and/or extra costs]**.

An independent estimate of the cost of the additional work is attached. This modification will add **[number of days]** to the original contract.

(Note: The amount of time required by the modification must be noted. If there is no change in the schedule, then state “0 days” or indicate that the modification will not change the amount of time associated with the contract.)

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Cc: MaineDOT Project Manager

PROJECT DESCRIPTION:	
CONTRACT MOD. NO.:	
PROJECT WIN:	
MUNICIPALITY:	
DATE ISSUED:	

To: _____, you are hereby notified, the following work is to be accomplished in accordance with the provisions of your Contract. The work will not be considered authorized for payment without the required signatures. Payment will be made as described.

(By signing this Order the Contractor agrees that all issues, including time, relating to the described work are satisfactorily resolved by this Order. No other compensation will be sought or made.)

DESCRIPTION:

--

REASON:

--

COST:

--

Amount of this Order: \$

Original Contract Amount	\$
Total Cost of this Contract Modification	\$
Total Cost of all Contract Modifications Including this Mod	\$
Percentage of Contract for this Mod	%
Total Percentage of Contract including all Mods	%
Total Contract Amount Including this Mod	\$

Additional Days Added (This Mod):	New Completion Date:
-----------------------------------	----------------------

TITLE:	SIGNATURE:	DATE:
Resident or Inspector		
Contractor		
Municipality		

Communication 19: Final Inspection

[DATE]

Jen Paul, Construction Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Inspection, MaineDOT WIN:

Dear [NAME]:

Your attendance is requested at the Final Inspection for **[insert project scope, WIN]** in the Municipality of [NAME] on **[insert meeting date/time]**. At the time, we can also make available all documentation and testing results for the project.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Cc: MaineDOT Project Manager

Communication 20: Final invoice and Completion of Work (Federal Project)

INSTRUCTIONS: This must be submitted on letterhead with all requested documentation.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Invoice and Notification of Completion of Work
MaineDOT WIN [NUMBER]; Contract # CSN [NUMBER]

Dear [NAME]:

This Municipality of [NAME] certifies that the contractor has completed all work on the subject project in accordance with the construction contract and approved modifications, and that:

- The Municipality has accepted the work;
- All quantities were measured in accordance with the contract;
- Final quantities have been reconciled and agreed to by the contractor;
- The Municipality has all required supporting documentation for the final quantities;
- There are no outstanding claims or disputes associated with the project; and
- All fees and contract balances have been paid, including expenses from preliminary engineering, right-of-way, construction, inspection, and construction engineering.

Attached is the final invoice for the project requesting reimbursement of \$[NUMBER] as MaineDOT's [NUMBER] % share of expenditures for the service period, [DATES]. Attached is the documentation to support this request, including copies of invoices received and checks issued. I understand that the Municipality's [NUMBER] % share of MaineDOT's internal charges to the project will be reconciled and deducted from this final invoice.

Also attached is a copy of the federally required consultant evaluation for the project.

By signing this invoice, I certify to the best of my knowledge and belief that the information provided is true, complete, and accurate, and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal funding award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812.)

Sincerely,

[NAME], Local Project Administrator

Local Project Administration Manual & Resource Guide

Consultant Selection



MaineDOT

Integrity - Competence - Service

Revised 2019

Consultant Selection

Project engineering is complicated work requiring licensed professionals. For this reason, organizations without staff engineers must hire consultants for design and inspection work. If a local agency intends to pay a consultant with federal or state money, the agency must use a qualifications-based selection and competitive negotiation. Price *cannot* be a scoring factor.

Chapter 2 of this Manual is set up to guide municipalities and other local agencies in meeting the requirements for hiring consultants with money from MaineDOT, as follows:

- Consultant selection checklist (page 2-2);
- Independent estimate guidance (pages 2-3 and 2-4);
- Consultant selection methods & pre-qualification (page 2-5);
- Table of consultant selection methods (page 2-6);
- Requests for proposals (page 2-7);
- Consultant proposals & salary cap - *revised* (page 2-8);
- Contracts and contract modifications (page 2-9);
- Debarment verification & evaluation of consultants (page 2-10);
- Risks to funding (page 2-10);
- Appendix 2A: Submittals to MaineDOT (page 2-11); and
- Appendix 2B: Consultant payment methods (page 2-15).



2.1 Scope of Work

Hiring a consultant begins with having a well-defined and detailed scope of work. At the start of a project, a local agency should prepare a scope of work that considers the following items, as they apply to the project:

- A description, with the location and the type of work;
- Deliverables such as reports, design plans, project specifications, and cost estimates;
- Proposed schedule for the work;
- The number of meetings with local staff;
- The number of public meetings to be facilitated;
- Preliminary engineering issues such as constructability analysis, environmental review, utility coordination, and right-of-way impact assessments, as applicable;
- A list of the specific services and expertise needed.

2.2 Consultant Selection Checklist

- Send scope of work and independent estimate to MaineDOT for review and approval.
 - *Approval Date:* _____
- **Services estimated to cost no more than \$25,000:**
 - Obtain MaineDOT project manager's approval to use simplified acquisition (*Communication 5*).
 - *Approval Date:* _____
 - Request/receive proposal from a single, pre-qualified consultant.
 - Negotiate scope, schedule and cost, based on independent estimate.
 - Verify that consultant is not debarred (www.sam.gov).
 - Obtain MaineDOT's approval of consultant proposal and unsigned contract (*Communication 7*).
 - *Approval Date:* _____
 - Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.
- **Services estimated at \$25,000 to \$250,000:**
 - Submit draft RFP to MaineDOT project manager for approval (*Communication 6*).
 - *Approval Date:* _____
 - Send RFP to 3-5 pre-qualified firms, seeking from each a technical and a sealed price proposal: www.maine.gov/mdot/cpo/prequal/
 - Score technical proposals and conduct interviews, if needed to choose best-qualified firm.
 - Unseal the price proposal from the highest-ranked (No. 1) consultant and negotiate a contract.
 - If negotiations with No. 1 are successful, draft a contract for MaineDOT review
 - If negotiations with No. 1 are unsuccessful, request a Best and Final Offer.
 - If terms cannot be reached, terminate negotiations and move on to No. 2 consultant.
 - Once terms are reached, verify that selected consultant is not debarred (www.sam.gov).
 - Send unsigned contract and price proposal to MaineDOT for approval (*Communication 7*).
 - *Approval Date:* _____
 - Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.
 - Send regret letters and unopened price proposals to proposers not chosen.
- **Services estimated at greater than \$250,000:**
 - Submit draft RFP to MaineDOT project manager for approval (*Communication 6*).
 - *Approval Date:* _____
 - Advertise the RFP, requesting from each firm a technical proposal and a sealed price proposal.
 - Score technical proposals and conduct interviews, if needed to choose best-qualified firm.
 - Unseal the price proposal from the highest-ranked (No. 1) consultant and negotiate a contract.
 - If negotiations with No. 1 are successful, draft a contract for MaineDOT review.
 - If negotiations with No. 1 are unsuccessful, request a Best and Final Offer.
 - If terms cannot be reached, terminate negotiations and move on to No. 2 consultant.
 - Once terms are reached, verify that selected consultant is not debarred (www.sam.gov).
 - Send unsigned contract and price proposal to MaineDOT for approval (*Communication 7*).
 - *Approval Date:* _____
 - Execute a contract, obtain completed DBE Form, and send consultant notice to proceed.
 - Send regret letters and unopened price proposals to proposers not chosen.

2.3 Independent Estimate

An agency hiring a consultant with federal or state money must prepare an independent estimate of the price of the services. The estimate will determine the selection process – as explained in section 2.5, “Consultant Selection Methods” – and will be a starting point for negotiations to reach fair and reasonable compensation.

The independent estimate, which must be completed *before* seeking proposals, should consider:

- Tasks based on the scope of work, described previously in section 2.1;
- The number of hours of effort required;
- Classifications and hourly wages of personnel likely to work on a project;
- Overhead (indirect) rate;
- Direct costs, such as mileage, telephone, printing, and sub-consultants; and
- A reasonable profit (fee), typically 8 percent to 10 percent.

Because the estimate will be a starting point for negotiations, it *cannot be shared* with anyone submitting a proposal. During negotiations, the proposed price may vary by up to **15 percent** from the estimate for contracts less than \$100,000, and by no more than **10 percent** for contracts greater than \$100,000.

The worksheet on page 2-4 is available on the LPA Documents web page under the category of “Consultants”: www.maine.gov/mdot/lpa/lpadocuments/

Although the estimate must be prepared by the agency administering a project, MaineDOT may provide guidance. Additionally, there often are local resources to help with this task, such as:

- A public works director or road commissioner;
- An engineer not involved in the project at hand; and
- Retired technical professionals in a community.

2.4 Consultant Work on Grant Applications

Municipalities and non-profit organizations may hire consultants at their own expense to assist with funding applications, but application-related costs are **not** reimbursable.

If a project is funded, the sponsoring agency must use a separate process to hire an engineering consultant, as set out in section 2.5, “Consultant Selection Methods.” A consultant that assisted with an application may compete for the subsequent design contract, but the firm cannot receive additional points in the scoring process solely for having worked on the application.

If a local project sponsor ultimately selects for design work a consultant who also worked on its application, after using the appropriate process, the work must be covered by a separate contract.

INDEPENDENT ESTIMATE WORKSHEET

Project Title/Location: _____

Date: _____

MaineDOT WIN: _____

Revised _____

Service Area or Phase of Work: _____

Prepared By: _____

		Project Manager	Project Engineer	Project Engineer	Designer	CADD Technician	Traffic Engineer	Other	Other	Admin Support	TOTAL
#	Task Descriptions	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
1	Survey										0.00
2	Alignment & Profile										0.00
3	Utility Coordination										0.00
4	PDR Submittal										0.00
5	Public Meeting										0.00
6	Misc. Meetings with Staff										0.00
7	Environmental Permits										0.00
8	Plan Impacts Submittal										0.00
9	Engineer's Estimate										0.00
10	Final Design										0.00
11	Final PS&E Submittal										0.00
12	Bidding Support										0.00
13	Construction Inspection										0.00
TOTAL HOURS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HOURLY RATE		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
LABOR TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Overhead	0.00 %	\$0.00
Profit/Fee	0.00 %	\$0.00

DIRECT EXPENSES	\$
Mileage	
Printing (External Use)	
Sub-consultants	
Other	
Other	

TOTAL DIRECT EXPENSES = \$0.00

Subtotal: \$0.00

Direct Expenses: \$0.00

TOTAL ESTIMATED PRICE \$0.00

2.5 Consultant Selection Methods

Local agencies must use one of the methods below when hiring consultants with federal or state money. Guidance is provided in the table on the next page and in the checklist on page 2-2.

- ❑ If the estimated cost of consultant work is **\$25,000 or less** – including modifications – an agency may negotiate with a single, pre-qualified consultant with MaineDOT approval. The agency first must send in Communication 5, “Request for Simplified Acquisition.”
 - *Costs exceeding \$25,000 cannot be reimbursed if simplified acquisition is used.*
- ❑ If the estimated cost of consultant work exceeds \$25,000 but is **\$250,000 or less**, an agency must solicit a technical proposal and a *sealed* price proposal from at least three pre-qualified firms. After scoring technical proposals, the agency must open the price proposal only from the highest-ranked firm and negotiate a contract.
 - *Price proposals from all other consultants must stay sealed.*
- ❑ If the estimated cost of consultant work is **greater than \$250,000**, an agency must use an advertised request for proposals (RFP) seeking from each firm a technical proposal and a *sealed* price proposal. After scoring technical proposals and conducting interviews, if necessary, the agency must open the price proposal only from the highest-ranked firm and negotiate a contract.
 - *Price proposals from all other consultants must stay sealed.*

Remember: Price cannot be a factor in the initial evaluation or ranking of any consultant.

2.6 Consultant Pre-qualification

MaineDOT recommends that local agencies solicit proposals from pre-qualified consultants. Firms with pre-qualification in certain service areas are listed on MaineDOT’s website: www.maine.gov/mdot/cpo/prequal/

Pre-qualification service numbers common to locally administered projects are listed below:

- 202.10 – Reconstruction/Rehabilitation Highway Design;
- 203.00 – Bridge Design (*Low Use / Redundant Bridge Program*);
- 206.20 – Minor Marine Facilities Design (*Small Harbor Improvement Program*);
- 209.10 – Pedestrian/Bicycle Facilities Design;
- 209.20 – Pedestrian/Bicycle Bridge Design;
- 401.00 – Title Research/Abstracting (*right-of-way work*);
- 402.00 – Property Valuation and Appraisal Services (*right-of-way work*);
- 403.00 – Property Negotiations/Ownership Information Services (*right-of-way work*);
- 601.00 – Highway Inspection, Construction Management, and Support Services;
- 603.10 – Marine Facilities Inspection (*Small Harbor Improvement Program*);
- 606.20 – Building Construction Management and Support Services.

CONSULTANT SELECTION METHODS

(Revised January 2019)

ESTIMATED CONTRACT VALUE	≤\$25,000	>\$25,000 to ≤\$250,000	>\$250,000
• Develop a Scope of Work.	✓	✓	✓
• Generate an Independent Estimate.	✓	✓	✓
• Select the most qualified consultant from a list of pre-qualified firms: www.maine.gov/mdot/cpo/prequal/	✓		
• Request a price proposal from the most qualified consultant.	✓		
• Develop Scoring Criteria.		✓	✓
• Develop a Request for Proposals (RFP) for review by MaineDOT Project Manager.		✓	✓
• Send RFP to 3-5 pre-qualified firms, seeking technical and <u>sealed</u> price proposals.		✓	
• Advertise finalized RFP, requesting technical and <u>sealed</u> price proposals.			✓
• Organize an evaluation team to review RFP technical submittals.		✓	✓
• Review technical proposals - and revise independent estimate, if necessary.	✓	✓	✓
• Open sealed price proposal from the top-ranked consultant.		✓	✓
• Negotiate scope of work, schedule, and a fair and reasonable price.	✓	✓	✓
• If negotiations break down, request Best and Final Offer.		✓	✓
• Verify that selected consultant is not debarred, via screen print from www.sam.gov	✓	✓	✓
• Execute contract with consultant	✓	✓	✓
• Issue written Notice to Proceed to consultant.	✓	✓	✓
• Obtain MaineDOT Project Manager’s prior written approval of contract modifications.	✓	✓	✓
• Evaluate consultant upon completion of contract and provide copy to MaineDOT.	✓	✓	✓

2.7 Request for Proposals (RFP)

A local agency that intends to use funding from MaineDOT to hire a consultant must prepare a request for proposals (RFP) that either is publicly advertised or sent to pre-qualified firms, as described previously in section 2.5, “Consultant Selection Methods.”

Unless MaineDOT specifically approves the use of a simplified process, an agency must solicit from each consultant a technical proposal and a *sealed* price proposal that is opened only if a firm is selected as highest qualified. Sealed price proposals from other firms must be returned *unopened* upon completion of the process.

Agencies should use a template RFP that is available on the LPA Documents web page under the category of “Consultants”: www.maine.gov/mdot/lpa/lpadocuments/

An RFP should include the following information, at a minimum:

- Scope of work with location map;
- Local contact person;
- Project deliverables;
- Schedule with milestones;
- Scoring criteria and relative weights;
- Deadlines for questions and for proposals;
- Goals for Disadvantaged Business Enterprises (DBE) – *federally funded projects*;
- Payment method; and
- Salary cap.** MaineDOT has direct salary cap of \$62 per hour for the consultant project manager and quality-control engineer, and \$50 per hour for other personnel on a project. Use of higher rates requires a waiver from MaineDOT, using a form that is online: www.maine.gov/mdot/lpa/lpadocuments/

2.8 Consultant Selection Criteria

As stated previously, local agencies must use qualifications-based selection of consultants for work on locally administered projects. Below are suggested scoring criteria:

- Qualifications and experience of key personnel;
- Experience with comparable projects using federal and state funding;
- Ability to start and complete work within the proposed schedule;
- Cost control methods;
- Quality control procedures;
- Current and projected workload of a firm.

2.9 Consultant Technical Proposals

Regardless of the selection process, local agencies must request from each consultant a technical proposal that includes the information below, at a minimum:

- The services to be performed and the products to be delivered;
- Estimated schedule;
- Qualifications and experience of personnel who will work on the project
- Experience with projects having state and federal transportation funds; and
- Work to be performed by sub-consultants.

After opening technical proposals on the date and time in the RFP, a local agency should form a committee to review and score them. Suggested factors are listed in section 2.8, “Consultant Selection Criteria,” on the previous page. Consultants should be ranked from highest to lowest.

2.10 Consultant Price Proposals

After scoring technical proposals, a local agency should open the price proposal from the highest-ranked consultant and negotiate a contract. The proposed price may vary by no more than **15 percent** from an agency’s independent estimate for contracts less than \$100,000 and by no more than **10 percent** for contracts exceeding \$100,000. (*Other price proposals must stay sealed to maintain the integrity of the process.*)

Consultant price proposals must include a breakdown of the information below:

- Direct salary** for each employee on a project, within the salary cap set out below.
- Indirect rate**, or “overhead,” covering rent, utilities, benefits, insurances and other costs not specific to a project. The overhead rate must be supported by an audited overhead report that has been approved by MaineDOT’s Office of Audit.
 - *Note: Use commercial rates for smaller firms without audited overhead reports, as explained in Appendix 2B, on page 2-15, “Payment Methods.”*
- Direct costs**, which include sub-consultant costs, mileage (at 45 cents per mile), phone, travel-related meals, lodging, and printing not covered by a firm’s overhead rate. *Direct expenses must be billed at the actual cost. Markup is prohibited.*
- Profit** (fee), typically 8-to-10 percent depending on the scope of work, size of a job, and the level of risk. The maximum is 15 percent, but this amount of profit must have written justification and receive signoff from a MaineDOT project manager.

2.10.1 Consultant Salary Cap

In July 2019, MaineDOT raised its consultant salary cap to **\$62 per hour** for the project manager and quality-control engineer on a project. The previous salary cap of **\$50 per hour** still applies to other consultant personnel. Agencies must obtain waivers in advance from MaineDOT to be reimbursed for salary costs exceeding the limits.

- A waiver form is online under “Consultants”: www.maine.gov/mdot/lpa/lpadocuments/

2.11 Consultant Contracts

After negotiating fair and reasonable compensation, a local agency must prepare a contract with its selected consultant. MaineDOT project managers must approve all contracts and contract modifications **before** they are signed.

Federally funded contracts must contain the items listed below. A template with all required language may be downloaded from the following web page under “Consultants”:

www.maine.gov/mdot/lpa/lpadocuments/

- A detailed scope of services, including deliverables and project milestones;
- Beginning and end dates;
- Maximum amount payable under the contract;
- Requirements for progress updates;
- Requirements for quality-control design checks;
- Indemnification and insurance requirements;
- Requirements for addressing errors and omissions by the consultant;
- Administrative, contractual or legal remedies for breach of contract;
- A provision for termination for cause or for convenience by the contracting agency;
- Assurances that a consultant is not debarred (*see section 2.13*);
- Signed Title VI Assurances (*federal projects*);
- Certification that no lobbying will be done with federal money (*federal projects*);
- FHWA-1273, Required Contract Provisions for Federal-Aid Contracts (*federal projects*);
- Ownership of documents, which generally become the property of the agency administering a project upon completion of a contract.



2.12 Contract Modifications

Any change to a consultant contract requires the agency managing that contract to execute a modification. Such modifications are necessary for changes in scope of work, time or amount. Modifications must be sent to MaineDOT for review and concurrence before they are signed. Additionally, such modifications must be signed by all parties before work covered by that modification may take place.

Note: Work subject to a contract modification that is performed before the modification is executed will be *ineligible* for reimbursement from MaineDOT, with no exceptions.

2.13 Debarment

Local agencies must verify that consultants are not debarred, prohibiting them from working on federally funded contracts. Verifications that firms are not debarred must be sent to MaineDOT project managers through screen prints from the federal System for Award Management (SAM): www.sam.gov.

2.14 Consultant Evaluations

MaineDOT and the Federal Government require local agencies to evaluate consultants once their contracts are completed. MaineDOT's standard consultant evaluation form may be used if references to MaineDOT are removed. It is found on MaineDOT's LPA web page under the category labeled, "Consultants": www.maine.gov/mdot/lpa/lpadocuments/

An evaluation should be finalized once the consultant has been given a reasonable time to review and comment on it. Upon completion of a project, a local agency must send MaineDOT a copy of its evaluation of every consultant with which it contracted for work on the project.

➤ **Note:** MaineDOT may hold final reimbursement until this evaluation is completed.

2.15 Risks to Funding

In signing agreements with MaineDOT, local agencies accepting federal or state funding become legally bound to meet the requirements that accompany the money. Agencies hiring consultants with funding from MaineDOT, therefore, must follow the procedures in this Chapter 2.

Listed below are activities that could make consultant costs ineligible for reimbursement:

- Selecting a consultant based on the lowest price for the service.
- Failing to follow the appropriate consultant selection method as outlined in this Manual, based on the estimated cost of the service.
- Starting work before a consultant contract is executed.
 - *Work before the execution date would not qualify for reimbursement. Work done afterward, however, would be reimbursable.*
- Performing work beyond the original contract scope of work without a contract modification in place.
 - *Work outside of the original scope would not qualify for reimbursement.*
- Working past the contract expiration date without a modification in place.
 - *Work performed past the expiration date would not qualify for reimbursement.*
- Exceeding the maximum dollar value of a contract without an executed contract modification in place.
 - *Reimbursement would be capped at the original contract amount.*



Appendix 2A: Submittals to MaineDOT



[Date]

[Name], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Simplified Acquisition Request
MaineDOT WIN [Number]

Dear [Name]:

The Municipality of [Name] is requesting approval to seek a proposal for engineering services for [project scope] with [insert company name].

Since the cost is estimated to be \$25,000 or less – based on our independent estimate (enclosed) – we request approval to use a simplified acquisition allowing us to solicit a proposal from one pre-qualified consultant. Our draft request for proposals is attached for your review.

We understand that MaineDOT cannot participate financially in contract costs exceeding \$25,000, since a simplified process will be used to select this consultant.

Please review the submitted materials and notify us if we are approved to solicit a proposal and subsequently to negotiate a contract with this firm. We understand that we cannot award a contract without your approval.

Sincerely,

[Name], Local Project Administrator

Enclosures:

1. Request for Proposals
2. Independent Estimate

[Date]

[Name], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Request for RFP Review
MaineDOT WIN [Number]

Dear [Name]:

The Municipality of [Name] intends to solicit proposals for consultant engineering services for [project scope]. Attached is the request for proposals that we intend to use for this solicitation.

If estimated price is \$25,000 to \$250,000, use the following language:

Based on our independent estimate of the cost of the proposed services (enclosed), we understand that we may select potential consultants from a pool of 3 to 5 pre-qualified firms. We intend to send the RFP to the following consultants on the MaineDOT pre-qualification listing for [insert type of service]:

-
-
-

If estimated price is \$250,000 or greater, use the following language:

Based on our independent estimate of the cost of the proposed services (enclosed), we understand that we must use a publicly advertised solicitation in accordance with the federal Brooks Act. We intend to advertise the RFP on [date] as follows:

Please review the draft RFP and inform me as to its adequacy.

Sincerely,

[Name], Local Project Administrator

Enclosure: Draft RFP

[Date]

[Name], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Consultant Selection Approval Request
MaineDOT WIN [Number]

Dear [Name]:

The Municipality of [Name] has selected [name of consultant firm] for engineering services for [project scope]. Attached is the negotiated contract, price proposal and our independent estimate. We understand that we cannot award this contract without your approval.

We have verified that our selected consultant is not debarred. Attached is a screen shot from the federal System for Award Management (SAM) database: www.sam.gov.

Please review these documents and respond at your earliest convenience so that we may execute a contract. We understand that no work eligible for reimbursement may begin until we execute the contract upon MaineDOT's approval and give our selected consultant notice to proceed.

Sincerely,

[Name], Local Project Administrator

Enclosures:

1. Draft contract
2. Independent Estimate

Appendix 2B: Payment Methods



PAYMENT METHODS

❑ BURDENED HOURLY RATE

Adjustable Burdened Hourly Rate:

This is a rate consisting of direct labor, overhead and profit that may be adjusted during the term of a contract. Direct labor rates must be supportable and within a salary cap of \$62 per hour for the project manager / quality-control engineer, and \$50 per hour for other consultant personnel. Direct expenses are billed on top of the overall hourly rate at actual cost, without markup. This payment method is recommended for longer contracts, of greater than one year in duration.

Fixed Burdened Hourly Rate:

This is a fixed rate consisting of direct labor, overhead and profit that cannot be adjusted during the term of a contract. Direct labor rates must be supportable and within a salary cap of \$62/hour for the project manager / quality-control engineer, and \$50/hour for other consultant personnel. Direct expenses are billed on top of the overall hourly rate at actual cost, without markup. This payment method is recommended for contracts of up to one year in duration.

When to use a Burdened Hourly Rate:

Burdened Hourly Rate payment methods are suitable when the effort per unit of work is well defined, but the number of hours required is uncertain. It is essential that a consultant working under this type of contract keep a record of the work completed.

Under this payment method, a consultant must submit an annual audited overhead report to the MaineDOT Office of Audit for review. The contract must include a maximum amount payable that cannot be exceeded unless adjusted by a contract modification.

❑ COST PLUS FIXED FEE

Under Cost Plus Fixed Fee, a consultant is reimbursed for actual, supportable costs incurred: direct labor (within a cap of \$62/hour for a project manager / quality-control engineer, and \$50/hour for other personnel), overhead, and direct expenses with no markup. In addition, the consultant is paid an agreed upon fixed fee (profit), which should be reasonable and range between 8 percent and 10 percent. Once negotiated, the fixed fee does not change.

When to use Cost Plus Fixed Fee:

This payment method is suitable when the scope of work is well-defined, but the effort required to complete the work cannot be estimate precisely. These contracts will be eligible for post contract audits to verify rates, contract compliance and profit level.

Under this payment method, the consultant must submit an annual audited overhead report to the MaineDOT Office of Audit for review. The contract must include a maximum amount payable that cannot be exceeded unless adjusted by a contract modification.

❑ **COMMERCIAL RATE**

Commercial Rate is a fair and reasonable rate consisting of direct labor rate, overhead (indirect), and profit. This rate remains fixed for the duration of a contract.

Direct labor rates must be supportable and within a salary cap of \$62 per hour for a project manager / quality control engineer, and \$50 per hour for other personnel. Direct expenses would be billed on top of the overall hourly rate at actual cost, without markup. An audited overhead report is not required for this payment method unless the contract value is greater than \$150,000.

When to use Commercial Rate:

Use Commercial Rate when a consultant is a new or small firm that does not have an audited overhead report. One method of establishing this rate is by using a market rate comparison.

❑ **LUMP SUM**

Lump sum is a negotiated payment method in which the price includes all direct labor, overhead and profit. Direct expenses either may be included in the lump sum amount or may be billed separately at actual cost without markup.

The amount of a Lump Sum contract is fixed; therefore, it is not subject to adjustment because of cost changes that a consultant might encounter in the performance of the work. For this reason, municipalities must scrutinize requests from consultants to increase the dollar values of these types of contracts.

When to use Lump Sum:

A Lump Sum payment method may be used when the scope of work is clear and well defined, and the total cost can be estimated accurately.

Local Project Administration Manual & Resource Guide

Project Design



MaineDOT

Integrity - Competence - Service

Revised 2019

Project Design

Successful projects begin with practical designs that reflect sound engineering judgment. Well-developed construction plans and specifications enable contractors to understand what they are to build and how the work should be done, minimizing change orders. Most municipalities and non-profit agencies hire engineering consultants. In larger cities, such as Bangor, Lewiston and Portland, municipal engineers often perform this work.

Chapter 3 of this Manual is set up to guide communities and consultants in meeting MaineDOT's expectations for design work on locally administered projects. It covers the following topics:

- Design requirements (page 3-1);
- Expectations for Preliminary Design Report and Plan Impacts Complete (page 3-2);
- Format of design plans (page 3-3);
- Americans with Disabilities Act (page 3-3);
- Design exceptions (page 3-4);
- Public involvement and traffic management (page 3-5);
- Design review requirements (page 3-6);
- Appendix 3A: Design submittal guidance (page 3-7); and
- Appendix 3B: Electronic exchange of CADD data (page 3-13).



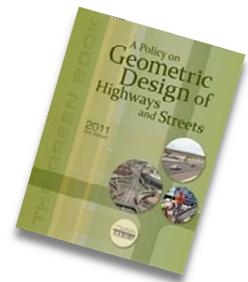
Design guidance is online: www.maine.gov/mdot/engineering/practices-procedures/

3.1 Design Requirements

Engineering work on a locally administered project must be supervised by an engineer licensed in Maine. If a highway, bridge or bicycle/pedestrian project contains federal or state money, MaineDOT expects the design to reflect the appropriate sections of its latest *Engineering Practices and Procedures*, *Standard Specifications*, and *Standard Details*.

Additionally, MaineDOT encourages the use of standard references, such as:

- AASHTO: A Policy on Geometric Design of Highways and Streets;
- AASHTO: Guide for the Planning, Design, and Operation of Pedestrian Facilities;
- AASHTO: Guide for the Development of Bicycle Facilities;
- AASHTO: LRFD Bridge Design Specifications;
- Federal Manual on Uniform Traffic Control Devices (MUTCD).



3.2 Preliminary Design Report

Early in project development, a designer prepares preliminary plans (at least 50 percent complete), identifies initial impacts, and prepares a preliminary cost estimate. The primary deliverable at this point is a preliminary design report (PDR), which must be submitted to a MaineDOT project manager for review using a form found in the “Design” section of the LPA Documents web page: www.maine.gov/mdot/lpa/lpadocuments/

At a minimum, a PDR should provide the following information:

- Project location, with a map;
- Design criteria;
- A description of existing conditions, including traffic volumes;
- Typical sections with pavement structure for travel lanes, shoulders and drives/entrances;
- Proposed exceptions to controlling design standards;
- Compliance with Americans with Disabilities Act and MaineDOT Complete Streets Policy;
- Identification of environmental, utility and right-of-way impacts;
- Results of meetings and other public involvement activities; and
- A preliminary estimate of the construction cost, using MaineDOT bid item numbers.

3.3 Plan Impacts Complete

Once MaineDOT approves a PDR, a project moves to final design. The primary milestone here is Plan Impacts Complete, when MaineDOT has signed off on the highway, traffic, drainage and environmental designs for a project, as applicable, and right-of-way needs have been determined.

Draft plan impacts must be sent to a designated MaineDOT project manager for review as .pdf files. A project reaches Plan Impacts Complete when design plans show these details, as applicable:

- Plan views with cut/fill lines;
- Cross-sections every 50 feet showing proposed limits of slopes and new construction;
- Beginning and end of project stations;
- Bearings on the baseline;
- Locations and limits of driveways and entrances to be constructed;
- Type of surface treatment on drives and entrances;
- Locations of curbing, sidewalks and islands, including their geometrics;
- Drainage scheme showing under-drain, basins, culverts, ditches and outlet locations;
- Calculated drainage flows;
- Clearing limits and individual trees/shrubs to be removed, regardless of size;
- Locations of structures to be installed, such as retaining walls;
- Locations of all signal poles, special street lighting, conduits and junction boxes;
- Existing utilities on plans and cross sections with proposed new locations; and
- Proposed guardrail.

3.4 Format of Design Plans

Electronic design files for projects on the state highway system must be submitted to MaineDOT right-of-way staff in MicroStation format. If a designer uses other software, files must be converted to MicroStation properly so that MaineDOT can use them without translation or loss of accuracy. For guidance, refer to MaineDOT's Policy on Electronic Exchange of CADD Data, found in Appendix 3B on page 3-14 of this chapter. Conversion work is not reimbursable by MaineDOT.

Additionally, the U.S. customary scales listed below should be used for projects on state highways:

- Plan View: 1 inch = 25 feet
- Profiles: 1 inch = 25 feet
- Geometrics: 1 inch = 25 feet
- Cross Sections: 1 inch = 5 feet
- Typical Sections: 1 inch = 4 feet

3.5 Americans with Disabilities Act

The Americans with Disabilities Act (ADA) prohibits discrimination against people with disabilities in all aspects of life. In the context of locally administered projects, the ADA requires that many highway improvements address deficiencies in ADA compliance to the *maximum extent feasible*, regardless of cost or funding source. ADA requirements are covered in greater detail in **Chapter 10**, "Civil Rights and the ADA."

➔ ADA resources are online: www.maine.gov/mdot/civilrights/ada/resources-engineers/

Under the ADA, highway projects that alter the usability of roadways must improve access to existing pedestrian facilities to the maximum extent feasible. This applies to new construction, reconstruction, rehabilitation and "pavement alteration" treatments such as overlay, mill-and-fill, in-place recycling, micro-surfacing and cape seals.



Within the limits of these projects, ADA compliant curb ramps must be built where barriers such as curbs restrict access to sidewalks and other pedestrian facilities. The law also requires installation of detectable warnings, where warranted, and upgrades to pedestrian signals.

Many locally administered projects involve sidewalk construction. Listed below are common standards for such facilities funded through MaineDOT.

- **New Sidewalks:** With some exceptions, new sidewalks must be at least 5 feet wide, with cross-slopes of less than 2 percent.
- **Curb ramps:** Ramp slope cannot exceed 8.3 percent; cross-slope cannot exceed 2 percent; new ramps must be 6 feet clear width; detectable warning fields must extend the length of the ramp; flared side should not exceed 10 percent; and ramps must be flush with the street.

If curb ramps cannot be built to comply fully with the ADA, they should be made compliant to the maximum extent feasible, with deficiencies explained and documented.

3.6 Design Exceptions

Designers and engineers face tradeoffs. An appropriate design balances cost, safety, mobility, social and environmental impacts, and the needs of a variety of users. When it isn't practical to meet standard design criteria, an appropriate solution may be to use a design value outside the standard range – if the designer has analyzed potential impacts to safety and operations.

A design exception is a documented decision to design an element of the transportation system to criteria outside of established guidelines. For projects along state highways, exceptions to the criteria in the matrix below must be highlighted on the design plans, with a memo describing the controlling values and the nature of each proposed exception.

The design exception form is found in the “Design” section of the LPA Documents web page: www.maine.gov/mdot/lpa/lpadocuments/

Requests for design exceptions on locally administered projects must go initially to the manager of the MaineDOT Multimodal Program. From there, a design exception request may be elevated to the MaineDOT Engineering Council, as warranted and shown below.

Highway Corridor Priority	Applicable Controlling Criteria	Approval Level
1, 2 (NHS)	CS, CZ, DS, HC, LW, MG, SC, SSD, SR, SW, VC	MaineDOT Engineering Council *
3, 4, 6	CS, CZ, DS, HC, LW, MG, SC, SSD, SR, SW, VC	MaineDOT Program Manager **

- CS Cross Slope
- CZ Clear Zone
- DS Design Speed
- HC Horizontal Curve Radius
- LW Lane Width
- MG Maximum Grade
- SC Structural Capacity
- SR Superelevation Rate
- SSD Stopping Sight Distance
- SW Shoulder Width
- VC Vertical Clearance

** Design exceptions on preservation projects shall be approved at the Program level. Design exceptions on rehabilitation projects can be approved at the Program level, with consideration given to submitting such exceptions to the Engineering Council on complex projects.*

*** Design exceptions on complex projects should be submitted to the Engineering Council.*

3.7 Public Involvement

During design, a local agency must give the public an opportunity to learn about potential impacts and comment on a project. An agency should determine an appropriate level of public involvement based on a project's size and its effect on the community and natural environment. A curb-to-curb paving project, for example, will have a less extensive public process than a highway reconstruction or shared-use path with multiple impacts.

Public meetings are the primary means of informing people about proposed projects. An agency overseeing a project should notify abutters by registered mail and publicize meetings using its standard public notification procedures. Advertisements typically are required.



Multiple events may be needed for complicated or controversial projects – including outreach to affected populations with limited ability to read, speak, write or understand English – to be sure that all customers and stakeholders have opportunities to influence the decision-making process.

Sample notifications are posted in the “Public Participation” section of the LPA Documents page: www.maine.gov/mdot/lpa/lpadocuments/

After the public process, a local agency must include a summary in the preliminary design report, covered previously in Section 3.2. The agency also must provide MaineDOT with a signed letter (*Communication 10*) certifying that it provided opportunity for public participation. An example of this letter is found in the submittals packet in Chapter 1 of this Manual, on page 1-31.

Businesses potentially affected must be notified and given opportunity to express concerns.

3.8 Traffic Analysis and Management Evaluation (TAME)

MaineDOT uses Traffic Analysis Management and Evaluation (TAME) to address traffic delays from construction projects. During the TAME review process, traffic engineers consider traffic counts and other factors, such as known traffic generators, to establish appropriate lane closures in work zones.

Upon completing a preliminary design report, a local agency or its design consultant must submit to MaineDOT's project manager a TAME Request Form, which can be downloaded using the link below. MaineDOT will consider traffic impacts and develop draft TAME criteria.

At the end of the review, MaineDOT may issue a special provision that restricts lane closures. Municipalities with projects on roads with average daily traffic volumes of greater than 10,000 or with heavy seasonal traffic should expect to have some restrictions on lane closures.

TAME guidance is online: www.maine.gov/mdot/engineering/practices-procedures/

3.9 Design Checks

Quality-control (QC) checks are vital to the design process. Accordingly, MaineDOT requires consultants and municipal engineers working on locally administered projects to perform and document QC design checks at the following milestones:

- At 50-60 percent design, with the preliminary design report (PDR); and
- At 90-100 percent design – with final plans, specifications & estimate (PS&E).

The QC process will consist of checking all calculations and design assumptions, and reviewing the PDR, contract provisions, plan set, cost estimates and all other relevant documents. The design checker shall be a qualified individual other than the originator of the documents.

The established QC design checks should include the following items:

- Summarizing the design-checking process. This will include the checklists used, the standard checking and back-checking processes, and other QC tools that were utilized.
- Documenting all design checks: initials of the checker, the date on which checks were performed, comments by the checker, and any other documentation.
- Checking documents and calculations for each design element.
- Complying with all legal, regulatory and contractual requirements, including but not limited to the Americans with Disabilities Act (ADA) and the Manual on Uniform Traffic Control Devices (MUTCD).
- Assuring both that the design is of high quality and that it conforms to all applicable MaineDOT standards, policies and practices.
- Reviewing the cost estimate, including quantity and unit price analysis with comparison to established budget and project scope.
- Analyzing constructability and maintainability if the proposed design.
- Risk assessment (based on public safety, funding, scope, site specific conditions, and/or other project specific condition that could elevate risk level.)



MaineDOT will verify the design checks through its quality-assurance reviews of project plans at the milestones PDR and final PS&E. MaineDOT staff will not review plan submittals that lack evidence of design checks until they receive such documentation.

NOTE: *If a community intends to hire an engineering consultant, quality control must be a scope item in a consultant's technical proposal and subsequent contract.*

Appendix 3A:

Design Submittal Guidance

- ❑ Electronic documents are available online:
www.maine.gov/mdot/engineering/highway/

DESIGN SUBMITTAL FORM

Project Name: _____ *WIN:* _____

PRELIMINARY DESIGN REPORT (PDR)

SUBMITTALS

- Completed draft Preliminary Design Report, using MaineDOT Highway PDR Form
- PDR-level cost estimate, including calculations and MaineDOT item numbers
- Pavement design
- Design exceptions approved by MaineDOT
- Half-size set of plans (.pdf format), including:
 - Preliminary typical sections
 - Plan views
 - Profiles
 - Cross-sections (include critical drive sections)
 - Preliminary drainage scheme
 - Under-drain, basins, culverts, ditches, and outlet locations
 - Guardrail and retaining wall locations

TYPICAL SECTION

HMA Depth	
Base Type	
Base Depth	
Sub-base Type	
Sub-base Depth	
Curb Type	
Loam Depth	

COMMENTS:

TRAFFIC

❖ **Turning Movements**

Location	Signal (Y/N)	Design Vehicle	Encroachment (Y/N)

COMMENTS:

❖ **Turning Lanes**

<i>Location</i>	<i>Design Speed</i>	<i>Lane Width</i>	<i>Taper Length</i>	<i>Storage Length</i>

COMMENTS:❖ **Other Auxiliary Lanes**

<i>Location</i>	<i>Design Speed</i>	<i>Shift Width</i>	<i>Taper Length Out</i>	<i>Shift Length</i>	<i>Taper Length In</i>

COMMENTS:**ADA**

Indicate existing or new pedestrian facilities. The ADA section in the PDR should be completed.

	<i>Sidewalks (Y/N)</i>	<i>Ramps (Y/N)</i>	<i>Crosswalks (Y/N)</i>	<i>Ped Signals (Y/N)</i>
<i>Existing Facility</i>				
<i>Proposed Facility</i>				

COMMENTS:**CLEAR ZONE**

List the required clear zone.

COMMENTS:

GUARDRAIL

Identify where guardrail is warranted and what the hazard is.

<i>Location</i>	<i>Obstacle within Clear Zone (Y/N)</i>	<i>Embankment steeper than 3H:1V (Y/N)</i>

COMMENTS:

DRAINAGE

Provide drainage scheme as indicated in Submittals section above.

COMMENTS:

DRIVES AND ENTRANCES

List critical drive locations and whether design exceptions will be needed.

<i>Location</i>	<i>Existing Grade</i>	<i>Proposed Grade</i>	<i>Design Exception (Y/N)</i>

COMMENTS:

RETAINING WALLS

Provide locations as indicated in Submittals section above.

COMMENTS:

PLAN IMPACTS COMPLETE (PIC)

SUBMITTALS

- Pavement design (if not submitted at PDR)
- Approved design exceptions (if not submitted at PDR)
- Retaining wall design approved by geotechnical engineer
- Guardrail length of need worksheets (if applicable)
- Half-size set of plans (.pdf format) including:
 - Typical sections
 - Plan views
 - Profiles
 - Cross-sections
 - Final drainage design

TYPICAL SECTION

COMMENTS:

GUARDRAIL

Identify where guardrail is warranted and what the hazard is. Provide length of need worksheets.

<i>Location</i>	<i>Obstacle within Clear Zone (Y/N)</i>	<i>Embankment steeper than 3H:1V (Y/N)</i>

COMMENTS:

DRAINAGE

Provide Final Drainage Design as indicated in the Submittals section above.

COMMENTS:

DRIVES AND ENTRANCES

List critical drive locations and Design Exception Approval date if applicable.

<i>Location</i>	<i>Existing Grade</i>	<i>Proposed Grade</i>	<i>Design Exception Date</i>

COMMENTS:

RETAINING WALLS

Provide design as indicated in Submittals section above.

COMMENTS:

FINAL PLANS, SPECIFICATIONS, & ESTIMATE (PS&E)

SUBMITTALS

- Half-size set of plans (.pdf format) including:
 - Title sheet
 - Typical sections
 - General notes
 - Plan views
 - Profiles
 - Cross-sections
 - Earthwork summary, if applicable
 - All supplemental sheets (Drainage, Geometric, Grading, Striping, etc.)
- Updated engineer’s estimate (including calculations) with MaineDOT item numbers
- Special provisions

Appendix 3B:

Exchange of CADD Data

MaineDOT Policy on Electronic Exchange of CADD Data

General

This document is intended as guidance to municipalities and design consultants about MaineDOT's specification for electronic data as it relates to engineering design deliverables. Municipalities and consultants working on locally administered projects that will require submittal of electronic files to MaineDOT for use in right-of-way mapping and other tasks must adhere to the standards set forth in this document.

MaineDOT uses MicroStation as its drafting software and Bentley InRoads as its roadway design application, both of which are products of Bentley Systems. Graphical data should be provided in MicroStation's .DGN drawing format. Roadway design data must be submitted in a format that can be imported directly into InRoads without translation or loss of accuracy.

Electronic Deliverables to MaineDOT

All CADD files submitted to MaineDOT must be organized in accordance with MaineDOT's CADD Standards. *No translation of graphical or roadway design information by MaineDOT personnel shall be required.*

MaineDOT's CADD standards, custom MicroStation and InRoads configuration files, and current version information are available for download from the CADD Support Web Page: <https://www1.maine.gov/mdot/caddsupport/>

MicroStation drawing files (.DGN) must meet MaineDOT's conventions for Working Units, Global Origin, Level Structure and Naming, File Names, File Content and Referencing, Line Styles, Line Weights, Fonts, Cells, and Color Tables. Roadway design data must be provided in InRoads model files (.dtm, .rwk, .alg, .itl, ird, .xin), and/or LandXML.

The consultant is solely responsible for any translation and verification required to convert non-MicroStation graphics files to the current MaineDOT MicroStation design file format, and roadway design files to the MaineDOT InRoads format or LandXML. MaineDOT reserves the right to reject any file transmitted that does not conform to these standards.

Consultants should install MaineDOT's MicroStation configuration as an alternative to their own. MaineDOT's MicroStation resources – including seed files, cell libraries, line styles, fonts, macros, color table, settings manager files, and menus – are available from the CADD support web page referenced above, along with instructions for setting up MaineDOT's configuration on an existing MicroStation installation.

The schedule of electronic file submissions will be determined on a project-by-project basis, depending on scope of work. Files at the preliminary design stage may be submitted via MaineDOT's FTP site (<ftp.mainedot.smartfile.com>) contained in a .ZIP file, or written to portable flash drives, CD, or DVD as individual files.

Upon MaineDOT's approval and acceptance of the final signed and stamped plans, consultants must provide to MaineDOT the final electronic versions of all MicroStation files, roadway design files, and associated resource files on portable data storage device. Consultants must provide copies of final plan sheets in Adobe Portable Document Format (PDF) at MaineDOT's discretion. The PDF files will serve as the electronic, read-only record plans for the project, and must match all aspects of the final hardcopy signed and stamped plans. *These electronic delivery items **DO NOT** replace hardcopy delivery items.*

A Project Journal File must accompany all electronic files submitted to MaineDOT, both those written to a portable data storage device, and those transmitted via MaineDOT's FTP site. This document must contain the Town Name, State Work Identification Number (WIN), date, and a list of the files being transmitted with a brief description of each file.

Portable flash drives, CD's or DVD's used to transmit electronic files to MaineDOT must, at a minimum, be labeled with the Town Name, State Work Identification Number (WIN), and date. If more than one data storage device is required to transmit the files, the disc label must also include the device number and total devices of the set transmitted, (ex: Disk 1 of 5).

MaineDOT Furnished Services and Information

MaineDOT will provide copies of the latest files used to configure, customize, and utilize MicroStation and InRoads in its own project development process to the consultant through the MaineDOT CADD Support page on the Internet.

MaineDOT will provide access to Engineering Applications Group personnel for information and answers to questions on MaineDOT CADD standards, MicroStation and InRoads setup, configuration, customization, and documentation. Contact information is available on the web site.

MaineDOT's Survey Section will determine the horizontal and vertical datum to be used for each project. Files exchanged between MaineDOT and the consultant will reflect these data.

MaineDOT will provide separate drawings for existing topographic information, text, contours, and a Digital Terrain Model (DTM) of existing surfaces in MicroStation DGN format. Consultants using InRoads software can request the original MaineDOT InRoads Survey model.

A variety of standard reports created during the processing of survey data for input into InRoads are also available to the consultant from MaineDOT. Examples of these reports can be found on the InRoads portion of the MaineDOT CADD Support web site. *It is the responsibility of consultants to translate this data into other formats required for use in their design software.*

Local Project Administration Manual & Resource Guide

Environmental Review



MaineDOT

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Environmental Review

Before moving forward, planned transportation projects must be assessed for potential impacts to natural and cultural resources, such as wildlife habitats and historic places. Such required environmental reviews stem from a series of landmark federal laws – notably the National Environmental Policy Act (NEPA).

Chapter 4 of this Manual provides guidance on the environmental review process, with a summary of laws, a breakdown of state and local responsibilities, and sample submittals to MaineDOT. It contains the following:

- A summary of the major laws and regulations (pages 4-1 to 4-6);
- An environmental checklist (page 4-2);
- A table with state and local responsibilities (page 4-3);
- Appendix 4A: Template submittals to MaineDOT (page 4-7).



4.1 National Environmental Policy Act (NEPA)

The National Environmental Policy Act (NEPA) is the country’s foremost environmental law, requiring agencies such as MaineDOT to assess potential project impacts to natural and cultural resources. When NEPA review is finished, MaineDOT typically receives from the Federal Government an environmental clearance that, for most locally administered projects, is known as a “Categorical Exclusion.” (Refer to Title 23 in the Code of Federal Regulations, Part 771, “Environmental Impact and Related Procedures.”)

Caution: Right-of-way negotiations with owners cannot begin until NEPA is complete.

NEPA review is required on projects with a federal action (funding/permits), as follows:

- MaineDOT completes the NEPA process if a project has federal transportation funding, but the local agency administering a project must provide information addressed in *Communication 10* and *Communication 11*, found on pages 4-8 through 4-10.
- All work regarding Section 106 (historic properties), Section 7 (endangered species), Section 4(f) (public parks, et. al.), public involvement, hazardous materials review, and the level of federal permit must be finished before NEPA can be completed.
- The local agency administering a project must complete the environmental review process when there is no federal money, typically through federal permitting.
- NEPA must be re-evaluated if a project is not completed within five years of the NEPA completion date or if a project changes after NEPA is complete.

ENVIRONMENTAL REVIEW CHECKLIST

National Environmental Policy Act (federally funded projects)

- Upon completing the Preliminary Design Report (PDR), provide MaineDOT with the public process certification (**Communication 10**) and NEPA checklist (**Communication 11**), found on pages 4-8 and 4-9 of this section.

Environmental Permits

- Contact appropriate state and federal agencies for requirements and approvals.**
 - Maine Department of Environmental Protection:
<https://www.maine.gov/dep/permits/index.html>
 - Augusta (Central Maine): 207-287-7688
 - Bangor (Eastern Maine): 207-941-4570; 888-769-1137
 - Portland (Southern Maine): 207-822-6300; 888-769-1036
 - Presque Isle (Northern Maine): 207-764-0477; 888-769-1053
 - U.S. Army Corp of Engineers, Augusta office: (207) 623-8367 or
<http://www.nae.usace.army.mil/>
- Contact appropriate state agencies for their comments and concerns about the project.**
 - Maine Department of Inland Fisheries and Wildlife:
 - Fisheries Division for timing approval, freshwater fisheries and fisheries passage issues: (207) 287-8000
 - Wildlife Division for rare, threatened and endangered species: (207) 287-8000
 - Maine Department of Marine Resources, Wetlands and Permit Section
 - Sea-run fisheries, coastal resources and fish passage issues:
<https://www.maine.gov/dmr/science-research/searun/index.html>
- Complete appropriate state and federal permit applications**

Environmental Certification

- Send an environmental certification in the format of Communication 12 and copies of all permits obtained for your project to the MaineDOT project manager. An example is found on page 4-11 of this section.
 - The certification and documentation must be part of the final Plans, Specifications and Estimate (PS&E) package.
 - MaineDOT must receive this paperwork before giving authorization to advertise a project for construction.

State and Local Responsibilities

TASK	RESPONSIBILITY
National Environmental Policy Act (NEPA)	Federal funds: MaineDOT
	State funds: Local Agency through federal permit
Section 106 of the Historic Preservation Act	Federal funds: MaineDOT
	State funds: Local Agency through federal permit
Section 4(f) of the Department of Transportation Act	Federal funds: MaineDOT
	No U.S. DOT funds: 4(f) does not apply
Endangered Species Act (a.k.a. Section 7)	Federal funds: MaineDOT
	State funds: Local Agency through federal permit
Hazardous Materials	MaineDOT with assistance from Local Agency
Environmental Permits	Local Agency
Dredge Materials	Local Agency
Natural Resource (wetlands, streams, fisheries, etc.)	Local Agency
Mitigation	Local Agency
All Stormwater Permits (Ch500, ESC law, MPDES)	Local Agency

MaineDOT Environmental Office contact:

Danielle Tetreau, Environmental Team Leader	207-592-2358 (Danielle.Tetreau@maine.gov)
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NEPA review will take **3 to 6 months** from finalization of the Preliminary Design Report and a local agency's submittal to MaineDOT of Communication 10, Communication 11, and the NEPA Documentation Checklist, found on pages 4-8 through 4-10 of this chapter.

MaineDOT's Environmental Office encourages the local agency administering a project to consult with the assigned MaineDOT project manager and the environmental team leader early – **ideally at kickoff** – to coordinate the schedule.

4.2 Section 106 of the National Historic Preservation Act

Section 106, found in federal regulation 36 CFR Part 800, “Protection of Historic Properties,” protects properties of historic and archeological significance. If a project has federal money, MaineDOT typically surveys buildings at least 45 years old in a project area for historic significance and potential adverse impacts. Section 106 commonly affects buildings, culverts, bridges, monuments, and cemeteries – especially those within historic districts.

Responsibility for Section 106 review is as follows:

- **MaineDOT** handles Section 106 review and coordination with the Maine Historic Preservation Commission on projects with federal money. The local administrator must provide MaineDOT with design plans showing project impacts, which are necessary for MaineDOT to make final determinations of effect.
- If a locally administered project has only state funds, the **local agency** managing the project must complete the Section 106 review process if the project requires a federal permit. In such cases, the local administrator or the agency’s design consultant will need to contact the Maine Historic Preservation Commission: www.maine.gov/mhpc/



4.3 Section 7 of the Endangered Species Act of 1973

Section 7 of the Endangered Species Act directs federal agencies to use their authorities both to conserve threatened and endangered species and to ensure that their actions don’t jeopardize listed species or harm critical habitat. In Maine, the law most commonly affects projects in waters for Atlantic salmon and in habitat for Canada lynx, the northern long-eared bat and the rusty-patched bumble bee. In such cases, MaineDOT may have to place restrictions on projects with in-water work or tree clearing to protect listed species.

- If a project has federal money, **MaineDOT** will complete the Section 7 review process. MaineDOT will need design plans and the scope of work, construction timing and techniques, and proposed timeframe from the agency administering a project.
- If a project has only state money or funding from a federal agency other than the U.S. Department of Transportation, the Army Corps of Engineers (ACOE) is responsible for consultation under Section 7. In such a case, the **local agency** administering a project must coordinate Section 7 review with the ACOE or other federal action agency. This work is usually completed during the permit application process.

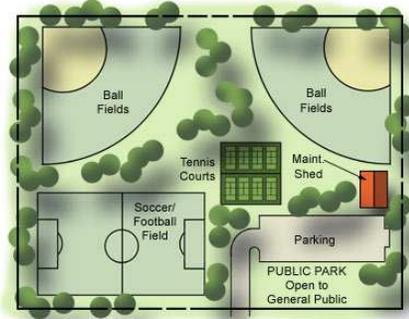


A listing of endangered and threatened species is online: www.fws.gov/endangered/

4.4 Section 4(f) of the USDOT Act of 1966

Section 4(f) applies to public parks, recreation areas, wildlife refuges and historic properties. (Requirements can be found in federal regulation 23 CFR Part 774.) Under the law, an agency must consider potential impacts if federal transportation money is used, as follows:

- **MaineDOT** typically completes the Section 4(f) process. To do so, MaineDOT requires project plans with proposed right of way from the local agency administering the project.
- The Section 106 process must be completed before Section 4(f) documentation is submitted to the Federal Government under the NEPA process.



4.5 Maine Natural Resources Protection Act

In Maine, the Natural Resources Protection Act (NRPA) is the primary state environmental law that applies to transportation projects. The law covers “protected natural resources” such as coastal sand dune systems, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, great ponds, and rivers, streams or brooks. The Maine Department of Environmental Protection (MaineDEP) administers the NRPA in municipalities and other organized areas.

The **local agency** administering a project is responsible for complying with the NRPA. The local administrator, or the consultant designing a project, must contact the MaineDEP to determine whether a NRPA permit will be needed. Note that Permit-by-Rule 11, for state transportation facilities, is not allowed for use by municipalities on locally administered projects.

The law most commonly affects projects with in-water work or wetlands impacts. Generally, it applies when a project – also known as an “activity” – will be:

- Located in, on or over any protected natural resource; or
- Located adjacent to a coastal wetland; a great pond; a river, stream or brook; certain freshwater wetlands; or significant wildlife habitat contained within a freshwater wetland.

The NRPA defines an “activity” as: (a) dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials; (b) draining or otherwise dewatering; (c) filling, including adding sand or other material, to a sand dune; or (d) construction, repair or alteration of any permanent structure.

➔ Visit the MaineDEP’s NRPA page: www.maine.gov/dep/land/nrpa/index.html

4.6 Environmental Permits

The **local agency** managing a project must obtain all permits and follow federal and state laws and regulations, including Maine’s Natural Resources Protection Act, covered on the previous page. Before advertising for construction bids, the local project administrator must provide MaineDOT’s project manager with copies of approved permits and a signed environmental certification modeled after *Communication 12*, which is found on page 4-11.

4.7 Hazardous Materials

MaineDOT is responsible for assessing whether there may be contamination from petroleum or other hazardous materials in a project area. As part of the process, the local agency administering a project must provide MaineDOT with design plans showing proposed excavation areas. If there could be contamination, MaineDOT will prepare a note to be inserted into the project contract book advising the contractor to use caution when excavating.

4.8 Stormwater Permits

Maine’s stormwater management law provides standards for projects that disturb at least **1 acre**. Stormwater permits are the responsibility of the local agency administering a project – including erosion and sedimentation control requirements and MaineDEP Chapter 500 Stormwater Management Rules. The local project administrator should contact the MaineDEP to determine the required permits. (*Contacts are shown on page 4-2.*)

Once permits are obtained, the local project administrator must provide MaineDOT’s project manager with copies as part of the environmental certification (*Communication 12, page 4-11*).

4.9 Dredge Materials

Maine’s solid waste management regulations define dredge materials as sand, silt, mud, gravel, rock, or other natural substance removed from beneath any body of water. These regulations typically apply to stream/river crossings and harbor improvement projects, which can require dredging. Under the regulations, dredge materials must be handled as special waste.

Beneficial Use Permits required by state law and associated regulations – Title 38 M.R.S.A. §1301-1319, Maine DEP Chapter 418 – are the responsibility of the **local agency** administering a project. MaineDOT, however, can provide guidance.

The local project administrator must provide the MaineDOT project manager with an environmental certification (*Communication 12, page 4-11*) and copies of approved permits.

Remember: Permits and Communication 12 must be submitted to MaineDOT before a project may be advertised for construction.

Appendix 4A: Submittals to MaineDOT

- ❑ Electronic documents are found in the “Environmental Review” section of MaineDOT’s LPA web page: <https://www.maine.gov/mdot/lpa/lpadocuments/>

Instructions:

1. This certification must be submitted on letterhead to MaineDOT with Communication 11 and the NEPA Documentation Checklist, found on the next two pages.
2. This certification also must be part of the final plans, specifications and estimate (PS&E) package for a project.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification
MaineDOT WIN [NUMBER]

Dear [NAME]:

The Municipality of [NAME] certifies that a public process was carried out for the subject project in accordance with Title 23 in the Code of Federal Regulations, Part 771.111, satisfying one of the pre-construction requirements in the executed project agreement with MaineDOT.

I have attached for your information the following:

- A copy of the notification that was sent to abutters by registered mail;
- A copy of the meeting notice;
- Sign-in sheet; and
- Meeting minutes or, if applicable, public hearing transcript.

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

Sincerely,

[NAME], Local Project Administrator

***Instructions:** This letter and the checklist on the next page should be provided to MaineDOT's Environmental Office when the Preliminary Design Report is approved.*

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: NEPA Checklist Submission
MaineDOT WIN [NUMBER]

Dear [NAME]:

Attached is the completed National Environmental Policy Act (NEPA) documentation checklist for **[project scope, WIN]** in the Municipality of [NAME]. We understand that this information is necessary for MaineDOT to complete the NEPA process.

Also attached is Communication 10, certifying that the Municipality conducted the required public participation process in accordance with requirements identified in the executed Project Agreement with MaineDOT dated **[execution date]**.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Enclosures:

- NEPA documentation checklist
- Public process certification (Communication 10)

NEPA DOCUMENTATION CHECKLIST

Project Title & Location: _____

Federal Project #: _____ MaineDOT WIN: _____

Description of Work: _____

MaineDOT Project Manager: _____

Answer the following questions and attach supporting documentation. If there is a “yes” response, explain on a separate sheet or contact your MaineDOT Project Manager for guidance.

1.) Public Involvement: Is there substantial public opposition to proposed action? Yes No
The answer should become apparent at a public meeting approving the project.

Documentation: Approved capital plan; meeting records; letters from the public; board meeting minutes; or Communication 10 (Public Process).

2.) Right-of-Way: Does action include a residential or commercial displacement, or acquisition of property rights that will result in substantial abutter impacts? Yes No
For help with “substantial,” contact your Project Manager at MaineDOT.

Documentation: Plan Impacts Complete for the project (Communication 9)

3.) Endangered Species & Essential Fish Habitat:

a. Has a qualified person surveyed the project area for streams, rivers, coastal waters, wetlands, and vernal pools? Yes No

b. Were streams, rivers, coastal waters / wetlands, freshwater wetlands, or vernal pools identified? Yes No

c. Is any work proposed in or adjacent to a stream, river or coastal waters? Yes No

d. Does the project require clearing trees or trimming limbs 3” or greater in diameter? Yes No

Documentation: Resource delineation and plans with location of resource and work planned. If in-water work is proposed, project will be screened by the MaineDOT Environmental Office for intersection with habitat for endangered species and critical fish. Additional coordination with the Environmental Office will be required if the project is in one of these areas and includes in-water work or involves clearing.

4.) Section 4(f) or 6(f):

a. Does project area include or abut resources protected by Section 4(f) of the Department of Transportation Act: publicly owned land, parks, recreation areas, wildlife and waterfowl refuges, or historic sites? Yes No

b. Will project require temporary or permanent rights on any protected 4(f) resource listed above? Yes No

Documentation: Plans with existing and proposed right-of-way, along with a description of how impacts were avoided and minimized.

Signed by: _____
[Name, Local Project Administrator]

Date: _____

Instructions: This must be submitted on letterhead to MaineDOT with the final plans, specifications and estimate (PS&E) package.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Environmental Certification
MaineDOT WIN [NUMBER]

Dear [NAME]:

If permits were required, use this paragraph:

The Municipality of [NAME] certifies that it has obtained all permits and approvals necessary to carry out the subject project, satisfying one of the pre-construction requirements in the executed project agreement with MaineDOT. Attached are copies of the permits, which are required for MaineDOT to complete the Environmental Summary Sheet for the contract package.

If NO permits were required, use this paragraph:

The Municipality of [NAME] certifies that no permits were needed for the subject project. This certification satisfies one of the pre-construction requirements in the executed project agreement with MaineDOT. *NOTE: If no permits were required, please briefly explain.*

Sincerely,

[NAME], Local Project Administrator

Enclosures: Environmental permits
Cc: MaineDOT Environmental Office

NOTE: Please attach all of the approved permits, if applicable

Local Project Administration Manual & Resource Guide

Right of Way



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Right of Way

Early in design, the municipality or other local agency overseeing a project must determine if land or easements must be acquired to carry out the work. If so, the agency administering the project must be careful to protect each property owner's right to receive just compensation.

Chapter 5 of this Manual explains the right-of-way process and covers the following:

- Roles and responsibilities (pages 5-2 and 5-3);
- Legal protections for property owners (page 5-4);
- Identifying right-of-way needs (page 5-5);
- Right-of-way plans (page 5-6);
- Title examinations (page 5-7);
- Appraisals, appraisal reviews and just compensation (page 5-8);
- Negotiations and acquisition (page 5-9);
- Certification, confidentiality and retention of records (page 5-10);
- Appendix 5A: Right-of-way process checklist (page 5-11);
- Appendix 5B: Sample forms (page 5-14); and
- Appendix 5C: MaineDOT Right of Way Manual guidance (page 5-23).



Federal guidance: www.fhwa.dot.gov/real_estate/local_public_agencies/lpa_guide/index.cfm

In general, the scenarios for right-of-way acquisition will include:

- **Fee interest**, in which the State or a local public agency acquires all interest in a parcel that is necessary for construction and maintenance of a project;
- **Permanent easement**, in which an owner retains title, but an agency obtains the right to use all or a portion of a parcel for a set purpose, such as for drainage or placement of a slope;
- **Temporary construction right**, in which an agency acquires temporarily the right to use all or a portion of a parcel during construction for purposes such as maneuvering equipment, grading, loaming and seeding. Temporary rights typically expire at the end of a project.

A local agency may begin negotiating right-of-way acquisition for a federally funded project – *including in cases of easements and donations* – only after:

- A federally required determination of just compensation is prepared; and
- The National Environmental Policy Act (NEPA) process is **completed**; and
- The U.S. Department of Transportation has issued an environmental clearance for a project – typically what is known as a “Categorical Exclusion” (CE).

5.1 MaineDOT Responsibilities

Once right-of-way needs for a project are determined, MaineDOT generally will acquire the rights to which the State of Maine will hold title. With few exceptions, the State will acquire rights along state highways. In such cases, the senior property officer in the MaineDOT Multimodal Program will serve as lead agent during the right-of-way process.

If a project is on a state highway, and property rights will be needed, **MaineDOT** typically will take the lead on the following tasks, as shown in Table 5-1, “State and Local Responsibilities”:

- Right-of-way mapping
- Title examinations (abstracts);
- Property appraisals;
- Appraisal reviews;
- Negotiations with property owners;
- Acquisition/condemnation; and
- Certification of the right-of-way process.

Right-of-way work done by MaineDOT is paid for out of the budget for a federally funded project. That is why it is important to identify right-of-way needs early – ideally as a project is kicked off. MaineDOT recommends that local agencies budget **\$5,000 per property** for the right-of-way activities listed above.

5.2 Local Responsibilities

If a project is off the state highway system, the local agency administering it must carry out the right-of-way process. That agency will be responsible for right-of-way plans, title examinations, appraisals and appraisal reviews, negotiations, and acquisition. *MaineDOT recommends contracting with consultants experienced with the federal right-of-way process – specifically acquisitions under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.*

MaineDOT may assist a local agency in identifying the scope, schedule and cost of right-of-way work. Additionally, MaineDOT may provide listings of qualified professionals to assist with right-of-way functions, including appraisal, negotiation and title work.

*See Appendix 5C,
page 5 -23 of this chapter.*

Upon conclusion of a locally administered right-of-way process, the agency overseeing a project must provide MaineDOT with a certification that it has obtained the necessary rights to construct the project as designed, in accordance with all applicable federal and state requirements. This certification must be submitted with the final Plans, Specifications & Estimate (PS&E) package.

➡ Refer to Communication 14, on page 5-21, for an example of a right-of-way certification.

TABLE 5.1 – STATE & LOCAL RESPONSIBILITIES

Note: The tasks below apply regardless of whether rights will be permanent or temporary.

TASK	RESPONSIBILITY
<input type="checkbox"/> Verification of Existing Right of Way	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Field Survey	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Property Owner Reports	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Preliminary Right of Way Plans <ul style="list-style-type: none"> ▪ <i>After design stage “Plan Impacts Complete”</i> 	State Highway: MaineDOT or consultant with MaineDOT approval.
	Off State System: Local Agency
<input type="checkbox"/> Title Examinations	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Final Right of Way Mapping <ul style="list-style-type: none"> ▪ <i>Shows impacted areas and types of rights</i> 	State Highway System: MaineDOT or consultant with MaineDOT approval
	Off State System: Local Agency
<input type="checkbox"/> Review/Verification of Right of Way Maps	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Notice of Intent to Acquire <ul style="list-style-type: none"> ▪ <i>Sent to owners of impacted properties</i> 	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Property Appraisals & Appraisal Review	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Negotiations – NEPA must be complete <ul style="list-style-type: none"> ▪ <i>28-day negotiation period</i> 	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Acquisition of Rights / Condemnation	State Highway: MaineDOT
	Off State System: Local Agency
<input type="checkbox"/> Right of Way Certification	State Highway: MaineDOT
	Off State System: Local Agency

5.3 Protections for Property Owners

Private land ownership is protected by the constitutions of the State of Maine and the United States. Any taking of private property for public benefit must be based on necessity and payment of what is known as “just compensation.” Public agencies must afford property owners due process of law.

The primary safeguard is a landmark federal law known as the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, which applies when there is federal money in any phase of a project – *even if right-of-way is acquired with private funds*. The “Uniform Act” works to ensure that people affected by property acquisition for public projects are treated fairly and not disproportionately harmed. In Maine, state laws are modeled after the Uniform Act.

➔ Violating the law on a federally funded project will jeopardize the money for the project.

Here are some of the key protections for property owners:

- ❖ Owners are entitled to just compensation of at least the acquiring agency's approved appraisal of *fair market value*.
- ❖ Owners are entitled to written notice of an agency's intent to acquire some of their property and of their basic rights. (Refer to page 5-15 for an example.)
- ❖ Agencies should encourage acquisition by agreement and should negotiate in good faith; using **coercion is illegal**.
- ❖ The acquiring agency must provide a *written* offer and give the property owner reasonable opportunity to consider the offer. MaineDOT uses a 28-day period.
- ❖ Owners must have the opportunity to *accompany the appraiser* when a property is inspected for an appraisal.
- ❖ The acquiring agency must pay the agreed upon purchase price before the owner is required to surrender possession of the property.



5.4 Property Donations

Occasionally, landowners will elect to donate property for a project and release a city, town or other agency from its obligation to pay just compensation. In such cases, donations may be accepted without required appraisals – but only if these steps are followed:

- The federal NEPA process is completed **before** any offer is made to acquire property; and
- The acquiring agency informs owners in writing of their right to have an independent appraisal performed and be offered fair market value; and
- Owners sign a document acknowledging that they understand their rights and are releasing the acquiring agency from its obligation to provide an appraisal and just compensation.

5.5 Identifying Right-of-Way Limits

As projects are developed, agencies must determine where the public way ends and private property begins. Survey data, county records and local “road books” can serve as starting points. MaineDOT, however, *discourages* the use of tax maps as a primary source of documentation. If a project is located on a state highway, MaineDOT may have records of the right-of-way limits along that corridor; contact the MaineDOT Property Office at 624-3460.

Right-of-way research should answer two questions:

- What are the limits and width of the public rights or right of way?
- Are the public’s rights based upon fee ownership, an easement for highway purposes, or what are known as “prescriptive rights” based upon long-term use?

After initial research, field work should be done to verify locations of property-line markers such as pins, monuments and fences. Owners should be contacted early to hear about the anticipated impacts and to verify locations of markers and other details such as water/sewer systems.

Responsibility for contacting owners should be determined at project kickoff. MaineDOT typically sends out a form known as a Property Owner Report that seeks basic information about the layouts of parcels likely to be affected by a planned transportation project.

A standard Property Owner Report form is found in the Right-of-Way section of the LPA Documents web page: <https://www.maine.gov/mdot/lpa/lpadocuments/>

5.6 Determining of Right-of-Way Needs

After verifying the limits of the public right-of-way, an agency must consider what additional land or rights in land may be needed. Even where it seems that a project can be built within the existing right-of-way, an agency may need temporary rights giving a contractor access to abutting parcels.

Permanent rights:

- Fee Simple Absolute, in which an agency acquires interest in all or a portion of a parcel; and
- Easement, in which the owner retains title, but an agency obtains the right to use all or part of a parcel for a specific purpose, such as for drainage or the placement of a slope.

Temporary rights:

- The right to have construction equipment operated on private property;
- The right to clear and grub trees;
- The right to grade and blend driveways and lawns to match side slopes.



5.7 Right-of-Way Plans

Once you identify impacts, you must develop right-of-way plans showing the property needed to build and maintain a project. “Mapping” the right-of-way begins when design reaches the milestone called “Plan Impacts Complete.” Completed right-of-way plans serve as the foundations for property appraisals and the source descriptions for a Notice of Layout and Taking, a legal document filed at a county registry of deeds.

Completed right-of-way plans must, at a minimum:

- Specify the types of rights to be acquired;
- Show affected areas by the square foot or acre; and
- Identify legal ownership of impacted properties.

Design work is covered in Chapter 3, “Project Design.”

Right-of-way plans can be prepared either by MaineDOT or by a consultant that MaineDOT determines is qualified to perform the work to MaineDOT standards. Roles and responsibilities must be determined early, preferably at project kickoff. Additionally, right-of-way plans must be stamped by a licensed professional engineer, architect or land surveyor.

Mapping must meet standards set out in Chapter 2 of the MaineDOT Right of Way Manual, which is online: www.maine.gov/mdot/rowmanual/

Final right-of-way plans typically include the following information:

- Construction limits and items;
- New right-of-way limits – including slope, clearing and wrought portion limits;
- Permanent and temporary easement limits;
- Revised parcel setups;
- Acquisition stations and offsets;
- Condemnation distances, including baseline and boundary lines;
- Easement limits and property lines tied into the base line;
- Calculated areas of take for each type of acquisition (fee, easement, etc. ...);
- Inside distance calculations;
- Total areas of property ownership calculated from the best available property information;
- Plan title block with MaineDOT file number – *if MaineDOT will be making acquisitions.*

MaineDOT’s Property Office must review draft right-of-way plans for projects on state highways. The plans are not considered complete until they have been verified as meeting MaineDOT’s mapping standards and legal requirements.

➡ At this point, a form letter known as a Notice of Intent to Acquire must be sent to each affected property owner. An example is found on page 5-15 of this chapter.

5.8 Title Examinations

Title examinations verify who owns the property to be acquired for a project. They take place once impacts are identified, since right-of-way plans require an abstract of title for each affected parcel. Title research produces a copy of the current deed for each affected parcel, as well as an abstract of each transaction involving the land or premises in question – including sales, mortgages and liens.

MaineDOT performs title work for projects on state highways. For other projects, it is up to a municipality or other local agency to conduct title examinations using its legal staff or private title attorneys. Title investigations must follow standards set by the Maine State Bar Association, including treatment of clouds or defects in title.

You must obtain the following basic information for each parcel before title research may begin:

- Property owner’s name;
- Property address;
- Tax map and lot identification;
- Property deed reference book and page;
- Copies of surveys, plan sheets, tax maps and property owner reports, as applicable.

Standards for title work: See
MaineDOT Right of Way Manual,
parts 2-4.02 and 8-2.01.

An indication of the greatest anticipated impact to a parcel will dictate the extent of the search. As the table below shows, permanent takes require a search spanning 40 years, while most easements and temporary rights require research only into the last acquisition or current owner of a property.

TITLE SEARCH REQUIREMENTS

Type of Acquisition	Length of Search
Fee (all right, title and interest)	Full 40-year title examination
Wrought portion (prescriptive easement) - major acquisition	Full 40-year title examination
Wright portion (prescriptive easement) – acquisition substantially same as existing area of occupation and use	Title activity since date of last acquisition/transfer
Drainage easement	Since last acquisition/transfer
Permanent easement	Since last acquisition/transfer
Slope easement	Since last acquisition/transfer
Temporary rights	Current deed only

5.9 Appraisals

A licensed real estate appraiser with proper certifications must prepare an objective estimate of the damages to each parcel affected by a project. MaineDOT maintains an appraisal register that can assist in identifying possible consultant appraisers. Before hiring an appraiser, a municipality or other local agency should verify that the appraiser has performed valuation work on federal-aid projects requiring use of eminent domain.

Caution: The owner or a representative of the owner must have an opportunity to accompany the appraiser during a property inspection. Otherwise, federal money could be jeopardized.

➔ Refer to sections 4-1, 4-2 and 8-2.03 of the MaineDOT Right of Way Manual.

5.10 Appraisal Reviews

If a municipality or other local agency will acquire rights for a project, that agency must have its appraisals reviewed, either by qualified staff or by a licensed and certified appraiser not associated with the person who did the original appraisal. The reviewing appraiser provides quality assurance by checking the original appraiser's computations, methods and techniques. In most cases, the reviewer either will **recommend** or **not accept** the valuation. The reviewer appraiser's finding in a summary report forms the basis for an official Determination of Just Compensation.

➔ Refer to sections 4-6 and 8-2.03 of the MaineDOT Right of Way Manual.

5.11 Just Compensation

Just compensation typically is based on an appraiser's determination of the fair market value of proposed rights and improvements to be acquired, along with property impacts from construction. In legal terms, this is known as the amount of "damages" resulting from the taking and impacts. When the acquiring agency is a municipality or other local public agency, the person making the determination of just compensation should be its highest-ranking administrative officer.

An offer of just compensation depends on the type and scale of the rights to be taken, as well as the extent of a project's impacts. Here are examples:

- **Whole acquisition.** If an entire property is taken, the owner is offered its market value. The owner also may be eligible for relocation benefits.
- **Partial taking.** If part of a property is acquired in a partial taking – and the remainder property value is unchanged, less the value of the part taken – the owner is paid for the part taken.
- **Severance damage.** When a parcel sustains "severance damage" an owner is paid not only for the part taken, but also for any loss in value to the remainder property.
- **Uneconomic remnant.** If a partial acquisition leaves an "uneconomic remnant" that is determined to be of no value or use to the owner, the acquiring agency must offer to buy it.
- **Temporary construction easement.** An agency compensates an owner for the right to enter a property to perform construction activities. At the end of the project, interest in the property reverts to the owner.



5.12 Negotiations

Negotiations with property owners may begin once the National Environmental Policy Act (NEPA) process is complete and a Determination of Just Compensation is made. The negotiator for an acquiring agency should present a *written* offer of just compensation in person. The negotiator also should explain the project and the need for acquisition, taking care to address questions about the offer and the valuation process. Most importantly, negotiations must be **free from coercion**.

An offer to an owner cannot be less than the acquiring agency's estimate of just compensation. By federal law, the owner must be afforded a reasonable period to consider an offer and to consult with others. MaineDOT gives property owners a minimum of **28 days** from the last offer; local agencies should use this timeline for their acquisitions.

Examples of standard forms are found in Appendix 5B, on page 5-14 of this chapter.

Although the acquiring agency's determination of just compensation is the basis for negotiations, an offer should not be viewed as a "take it or leave it" alternative. Information from an owner may be reason to revise the offer if, for instance, a significant element of value was omitted from the appraisal or if the acquisition was not properly described in the appraisal.

➡ Refer to sections 5-3 and 8-2.04 of the MaineDOT Right of Way Manual.

5.13 Acquisition

Once negotiations have ended, an agency acquires property either by the transfer of documents (deeds) or by condemnation through a "Notice of Layout and Taking." Except in cases requiring only temporary easements, the acquisition must include a release of the interest of any mortgagees, lessees, lien holders, or other parties.

If an affected property owner must move, the municipality or other agency in charge of a project should seek assistance from the MaineDOT project manager or Property Office, since the federal Uniform Act requires displaced persons to be offered relocation assistance in such cases.

The property owner will receive a copy of the Notice of Layout and Taking, a statement of just compensation based upon the appraisal, a copy of the plan as it relates to the parcel acquired, and a check for the compensation plus prorated taxes. By federal law, an owner cannot be required to surrender possession of real property before the acquiring agency pays the agreed-upon price.



➡ If **MaineDOT** will hold title to rights acquired for a project, MaineDOT either will perform the title searches and appraisals directly or coordinate those tasks with the municipality or other local agency overseeing a project.

5.14 Certification

After filing a Notice of Layout and Taking with a county registry of deeds, the acquiring agency must certify that it has obtained the rights to construct the project as designed, in accordance with federal and state requirements. (See *Communication 14*, on page 5-21, for recommended format.)

As explained previously in section 5.1, “MaineDOT Responsibilities,” **MaineDOT** will certify the right-of-way process if the State of Maine will hold the rights for a project. On the other hand, a municipality or other local agency must certify the right-of-way process if titles will be held locally. If a local agency acquired rights on a federally funded project, the certification must be signed by the highest-ranking administrative officer, such as the manager or select board chair.

The certification must be submitted to MaineDOT before a project is advertised for construction, typically as part of the final Plans, Specifications and Estimate (PS&E) package. A project cannot be put out to bid without this certification.

5.15 Confidentiality

Project and parcel records relating to appraisals and settled negotiations must remain confidential for nine months after the completion date of a project. If an owner has appealed a claim to Superior Court or the State Claims Commission – in cases where MaineDOT acquired the rights – such records must remain confidential until an official award has been made.

During the confidentiality period, parcel and project files relating to appraisals and negotiations are not available for public inspection. To safeguard these documents, an acquiring agency should ensure that only those persons qualified to access such files can view them.

Agencies should take additional care to ensure that information subject to privacy laws is protected from disclosure. Such information may include owner income, assets and tax information.

5.16 Retention of Records

As with other phases of a project, agencies must retain all records relating to the right-of-way process. Below are examples of documents that must be kept for at least **three years** after completion of a project:

- Property ownership information, including title reports;
- Appraisal reports;
- Statement of determination of fair market value;
- Offer letters to property owners;
- Negotiation logs;
- Correspondence with property owners; and
- Settlement agreements.

Appendix 5A: Right-of-Way Checklist



CHECKLIST: RIGHT-OF-WAY PROCESS

- Limits of existing public right of way verified**
 - County layout records;
 - Municipal highway book;
 - Plans from previously completed MaineDOT projects.
- Survey work completed**
 - Preliminary project limits identified.
 - Potentially impacted property owners identified.
 - Property ownership reports sent to property owners.
 - Significant property improvements mapped based on field inspections, property records, and property owner information.
- Preliminary right-of-way mapping performed.**
 - MaineDOT must approve *Plan Impacts Complete* to start preliminary right-of-way mapping.
 - Preliminary right-of-way mapping identifies the type and physical extent of rights needed to construct and maintain the proposed design on abutting properties.
 - Parcel setups identify owner, parcel size, and type and area of proposed rights to be acquired.
 - Preliminary right-of-way impacts determine the level of title work to be requested.
- Title examinations performed.**
 - Title searches are conducted at county registries of deeds for impacted properties.
 - Title examinations must meet standards established by the Maine Bar Association.
- Final right-of-way mapping performed.**
 - Property boundaries and ownership identifications are based on the title searches.
 - Existing and proposed right-of-way limits shown on the maps.
 - Property pins are located on the maps.
 - New rights to be acquired are shown, with areas calculated (MaineDOT Standards).
 - Plan title block included, with MaineDOT file number, if applicable.
 - Right-of-way maps reviewed by MaineDOT Property Office (if state highway).
 - Maps approved by MaineDOT Property Office (if state highway) on: _____.
- Notice of Intent to Acquire sent to the owner of each impacted parcel.**
- Agency contracts with a professional appraiser on the MaineDOT Appraisal Register.**
 - Appraiser must be properly licensed or certified to appraise property for highway right of way.
 - Property owners are notified of their right to accompany the appraiser during the inspection.
 - Appraisal report submitted on: _____.
- Review appraiser retained to review appraisals for proper methodology and accuracy.**
 - Reviewer must recommend, accept, or not accept each appraisal.
- Determination of Just Compensation made [MaineDOT Right-of-Way Manual, §8-2.03].**
- Written statement of Just Compensation is signed by highest ranking administrative officer.**

→ *The federal NEPA process must be completed before proceeding further.*

- Upon completion of NEPA process, property donations may be made**, if applicable.
 - Each donating owner is informed of right to receive just compensation.
 - Each owner signs form acknowledging this right and releasing agency from its obligation.
- Qualified negotiator retained to negotiate just compensation with each property owner.**
- Upon completion of NEPA process, right-of-way negotiations initiated:**
 - Negotiator presents Offer of Just Compensation in writing to each owner.
 - Negotiator explains the project and the need for acquisition.
 - Negotiator answers questions about the offer and the valuation process.
 - Negotiator gives each owner a minimum of 28 days to consider the offer and respond.
 - Negotiator should make every reasonable effort to settle amicably by negotiation.
 - After 28-day period, negotiator notes if Negotiations Completed or Negotiations at Impasse.
 - If settlement by negotiation is not feasible, title should be acquired by Eminent Domain.
- Upon conclusion of negotiation process:**
 - The agency sends each owner a check for the settled amount or – in cases not settled by negotiation – the agency’s determined amount of just compensation.
- Acquiring agency certifies the right-of-way (Communication 14).**
- Unsettled claims appealed to State Claims Commission (state) or Superior Court (local).**

Appendix 5B: Right-of-Way Forms

- ❑ Copies of these and other documents are available on MaineDOT's LPA web page in the section labeled Right of Way: <https://www.maine.gov/mdot/lpa/lpadocuments/>

SAMPLE NOTICE OF INTENT TO ACQUIRE

Date:

Project#:

WIN:

Parcel:

Route #:

Town:

Dear Property Owner(s):

The Municipality of [**Name here**] is currently working on plans for a transportation improvement project located at [**project location**]. This letter informs you of the proposed project and your involvement as a property owner. The plans indicate the Municipality will acquire a portion of your property and/or rights in land as part of this project.

A representative of the Municipality will contact you soon regarding the project and its impact on your property. You are entitled to due process and just compensation, as the representative will explain.

If you decide to sell your property, state law requires that you inform the potential buyer that the Municipality intends to acquire an interest in this property.

If you have questions pertaining to the procedures you can contact me at this office by telephone, <ENTER PHONE NUMBER HERE>. Our intention is to have you understand what is being done and why it is being done, with the least amount of inconvenience to you as an involved property owner.

Thank you for taking your time to understand our procedures.

Sincerely,

<HERE SIGNATURE HERE>

Local Project Administrator

SAMPLE OFFER LETTER TO PROPERTY OWNERS

Re: WIN:
 Project:
 Town:
 Parcel No.:
 Item No.:

(Property Owner)
(Address)
City, State Zip

Dear Property Owner:

Today, the Municipality's representative has explained to you the proposed construction and the effect it will have on your property. He/she has attempted to answer any questions you had. He/She has also explained the methods used in preparing our appraisal and the basis for our determination of just compensation for the land and rights to be acquired. He/She has made you an offer in the amount of \$_____, which represents the just compensation as determined by a qualified appraiser and approved by the Municipality's review appraiser.

The land and/or rights to be acquired from you for this project are as follows:

Land: Fee _____

Easements _____

Grading Rights _____

Buildings & Improvements _____

Other Interests and/or Rights to be Acquired _____

The following is a statement by the Municipality regarding the parcel or parcels of land above referenced:

- A. The highest and best use of the property at the date of taking.
- B. The fair market value of the real property taken as of the date of taking.
- C. Offering price.

Our representative has explained your recourse if the Municipality’s offer is not acceptable. The booklet “Your Property and the New Highway” confirms the procedures available to you. If a copy of this booklet has not previously been given to you, please request one. He/She has also explained that the property owner or designated representative is responsible for informing any potential purchaser of the impending acquisition of land and/or rights as required by Title 23, M.R.S.A. Section 153-B(4).

The Municipality has been careful to design an attractive, safe project in such a manner as to cause the least damage to adjoining property. The Municipality also has spent a great deal of time preparing appraisals, which were carefully reviewed, to determine the just compensation due to the property owners. We hope that we have accomplished our objective.

PROPERTY MARKERS: Action taken by the 115th Maine Legislature has revised Maine’s landmark location law (14 M.R.S.A., Sec. 7554-A). Please be sure to inform our agents if your property markers do not appear on our plans. The Municipality does not set property pins, but will re-establish the point of former location of a disrupted pin on request from the owner.

Under certain conditions, the Municipality can reimburse eligible property owners for reasonable cost associated with resetting a property pin on the new right of way line by a Licensed Professional Land Surveyor. Our agent can explain the eligibility criteria and application process.

Very truly yours,

By: _____

SAMPLE OWNER'S OFFER-ASSENT FORM

Property Owner(s):

WIN: _____

Town: _____

Parcel/Item No.: _____

BACKGROUND

1. It has been determined that public exigency requires the construction or reconstruction by altering, widening, changing the grade of and/or changing the drainage of a portion of State Highway “____” in the Town of _____, County of _____ and State of Maine through a Locally Administered Federal-aid Project identified by the WIN referenced above (the “Project”).

2. In connection with the Project, the necessary real property rights (the “Property Rights”) to be acquired have been assigned value, surveyed, and identified on a plan known as Right of Way Map, State Highway “____”, Project No. _____, on file at _____.

3. The Property Rights in and to a certain parcel of land identified on the Right of Way Map as Parcel No. _____, owned by the above identified Property Owner(s) (the “Property Owner(s)”) in said _____, are required for construction of the Project.

4. The Municipality intends to acquire the Property Rights by filing a Notice of Layout and Taking (the “Taking”) in the _____ County Registry of Deed on or about _____. At the Municipality’s discretion, and with the Property Owner(s)’ consent, the Property Rights may be transferred through the execution of a deed or other transactional instrument.

5. The Municipality has determined just compensation for acquisition of the Property Rights to be \$_____ (the “Payment”), and this amount will be paid to the Property Owner(s) upon filing of the Taking.

5. The Property Owner(s) does/do hereby acknowledge that _____, Right of Way Agent representing the Municipality, met with or wrote to the Property Owner(s) and explained the Property Rights to be acquired, the just compensation Payment, and all construction impacts, changes of location, grade, drainage and slopes as they apply to the Property Owner(s)' land.

AGREEMENT

1. The Property owner(s) accept the Payment as just compensation for all Property Rights taken in connection with the Project.

2. The Property Owner(s) release the Municipality from any further claims of just compensation arising from the Property Rights taken in connection with the Project; however, if any changes in design or construction occur after the date of this settlement and negatively impact the Property Owner's land in an unanticipated manner, the Property Owner(s) shall have the right to request that this settlement be rescinded.

In witness of the above, the parties have executed this Agreement on the date herein indicated.

Dated: _____

Property Owner(s):

**Sample
Donation and Release of Agency Obligations Form**

MUNICIPALITY OF _____

FEDERAL PROJECT NO.: _____

WIN: _____

PARCEL/ITEM NO: _____

OWNER(S): _____

(I)/(We) acknowledge having been informed of the right to receive just compensation based upon an approved appraisal. Notwithstanding, I/we wish to donate the right of way (land and/or rights therein) and release _____ from its obligation to provide an appraisal and offer for the real estate needed for the above referenced project. This donation to the _____ is made without coercive action of any nature.

DATED:

WITNESS

SIGNATURE OF OWNER(S)

INSTRUCTIONS: If a local agency took the lead on the right-of-way process, this letter must be signed by the agency's highest-ranking administrative officer and submitted with the attached certificate to MaineDOT with the final PS&E package for a project.

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification, Federal Project
MaineDOT WIN_____

Dear _____:

If right-of-way was acquired, use this statement:

Attached is the required certification that all right-of-way necessary for construction and maintenance of _____ in the Municipality of _____ has been acquired, in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the executed project agreement with MaineDOT dated _____. The Municipality certifies that it has legal and physical possession of all right-of-way needed for the project.

If NO right of way was required, use this statement:

The Municipality of _____ certifies with this letter that no right-of-way acquisition was required for the subject project, since all planned work will occur within the exiting public right-of-way. If you require additional information, please let me know.

All information about the right-of-way process can be made available upon request. If you need additional information, please let me know.

Sincerely,

Highest Ranking Administrative Officer

Enclosure: Right-of-way certificate

MUNICIPALITY OF _____
RIGHT OF WAY CERTIFICATE

FEDERAL PROJECT		WIN	
-----------------	--	-----	--

ROUTE		LOCAL NAME
-------	--	------------

RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:

Property Owners		Fee Simple Parcels		Easement Rights	
-----------------	--	--------------------	--	-----------------	--

Displacement Summary:	Number of Cases
Number Displaced	<input style="width: 100%;" type="text"/>
Number Relocated	<input style="width: 100%;" type="text"/>

The Municipality of _____ hereby certifies that the right to occupy and use all the rights of way necessary for this project has been acquired by deed, condemnation or permit to work. All right-of-way has been or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property and all relocations have been accomplished.

Without Exception

Legal Possession completed as of _____

All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by federal regulation.

Signed by:

Highest Ranking Administrative Officer	Date

Appendix 5C:

MaineDOT Right-of-Way Manual

Section 8: Local Agency Acquisition



MaineDOT

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CHAPTER EIGHT

LOCAL AGENCY ACQUISITION

8-1 LOCAL AGENCY ACQUISITION POLICY

8-1.01 Partnering with Municipalities

Citizens of the State and the community benefit when local officials acquire right of way under agreement with the Maine Department of Transportation. Local officials know the needs and concerns of citizens. Property owners in the path of highway development are more likely to amicably settle property acquisition claims on the basis of fair market value when they are approached by officials they know, who share the same community interests. This enables highway projects to be completed expeditiously and at reasonable cost. It also results in a high degree of citizen satisfaction with the right of way process and the completed project.

Private ownership of property is a basic American right that is protected by the United States and the Maine Constitutions. The taking of property is constitutionally conditioned on public necessity and on payment of just compensation for property that is acquired for a public need. Federal and State legislative enactments provide additional citizen protections and rights. These control the process by which property is acquired and are intended to ensure that persons who are affected by acquisition are not disproportionately injured by projects that are intended to benefit the public as a whole.

The Maine Department of Transportation (MaineDOT) assists municipalities to acquire real property that is needed for highway projects in compliance with Federal and Maine law. This Chapter sets forth basic requirements of law and State policy. It describes and explains the critical steps in the property acquisition process. The objective is to enable local officials to proceed with confidence that they are conforming to all requirements of the law, reducing the amount of time devoted to the research and study of procedures and rules.

This Chapter is intended to serve as a concise breakdown of the Right of Way acquisition process in regards to Local Projects. Local agencies are still required to follow the relevant chapters of this Manual for the portions of the acquisition process that they undertake as part of their respective projects. This Chapter does not address unique or complex situations. Right of way acquisition is a human endeavor. Circumstances will arise that are not addressed by this brief coverage and that may be outside the experience of officials charged with this function. To address this situation, MaineDOT assigns a liaison representative to advise and consult on project right of way issues and problems. The assigned MaineDOT staff will have varied statewide experience and will provide practical advice that conforms to applicable law and regulations. In addition, the MaineDOT representative will strive for program consistency so that citizens are treated fairly and equitably, without regard to the part of the State they live in or the nature of their occupancy or type of acquisition.

8-1.02 Administration

Local Agency projects are administered in the Bureau of Project Development Multimodal Program. Projects that will be developed and delivered locally are identified early in the work plan development process. MaineDOT support and guidance will be provided by the Multimodal Program. A Project Manager (PM) is assigned to oversee a locally administered project and will arrange for resources within the Department to assist in this oversight. This PM will engage the Senior Property Officer in the Program to assist the Local Agency in their Right of Way needs.

8-1.03 MaineDOT Services

The Department will perform the following activities with regard to locally administered right of way acquisition projects:

1. Ensure that the project is in the MaineDOT Capital Work Plan and that Federal funding is committed, if applicable. The Multimodal Program will assure that proper R/W authorizations are in place.
2. Consult with local officials to identify the scope, schedule and cost of right of way acquisition. Generally, if the acquired property will become State owned, the Department will be responsible for the acquisition. If the property will become municipally owned, the local agency will be responsible for the acquisition with guidance from the Department.
3. Prepare an agreement in consultation with local officials defining the State/local project responsibilities.
4. Provide current and continuing advice on the application of State and Federal laws and regulations concerning right of way acquisition to specific project and parcel problems and situations.
5. Provide revisions and updates to regulations, policies, procedures and guidance material.
6. Provide training to local staff that are or will be engaged in right of way acquisition. Training is normally delivered through an agreement with professional organizations including the National Highway Institute, the International Right of Way Association or the American Association of State Highway and Transportation Officials as well as MaineDOT's Local Project Administration Training.
7. Monitor the performance of right of way activity in conformity with MaineDOT's Quality Assurance/Quality Control Program. See Chapter 10 for further detail.
8. Provide referrals of qualified and experienced private service providers in right of way functions, including appraisal, negotiations, relocation, legal services and title work.

9. Provide reimbursement for eligible costs based on supported claims that are submitted by the local jurisdiction.

The MaineDOT Senior Property Officer or Project Manager will perform many of the above services. The municipality shall maintain continuing contact with the representative through the property acquisition phase of the project. Normally, the Senior Property Officer will meet with the responsible municipal officials at an early stage in the project to review policy questions and the project schedule and to discuss any critical or complex cases.

For all property acquired, whether acquired by the Municipality or the Department, it is the Department's ultimate responsibility to ensure that the acquisition is being accomplished in accordance with all applicable State and Federal laws, regulations, and policy. Coordination between the Department and the local agency can be an essential element in providing that assurance. The Senior Property Officer will closely monitor the acquisition activities of the agency on a regular and ongoing basis.

8-1.04 MaineDOT/Municipality Agreement

A formal agreement defining the roles and responsibilities of the municipality and the Department will be executed for every project on which a municipality will assume responsibility. This is a comprehensive agreement covering all phases of work, including right of way. The agreement will normally provide for complete assumption by the municipality of all right of way acquisition responsibility as stated previously in Subsection 8-1.03. However, specific activities may be reserved for MaineDOT performance. This may include the relocation of residents who will be displaced as a result of acquisition. Any municipality opting to acquire right of way as part of project administration shall follow the requirements of the Uniform Act and the procedures outlined in this Manual.

The agreement will state that the standard of performance for right of way work will meet the requirements of the ***Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*** (as amended)(***Uniform Act***). This Chapter sets forth the basic and minimum requirements of the ***Uniform Act*** for the acquisition of property where no relocation is involved.

The MaineDOT/Municipality Agreement is an open-draft document that is intended to address the circumstances of specific projects. MaineDOT staff will consult with local officials in advance concerning the scope and content of the agreement so that it is relevant to the project and meets the needs of both parties.

8-1.05 Applicable Laws and Regulations

The local agency performing property acquisition is subject to the same laws and regulations as if MaineDOT were the acquiring agency. Following is a brief summary of the legal authorities that control the acquisition of real property for right of way:

1. U.S. and Maine Constitutions. Both require public necessity and payment of just compensation for the taking of private property. Additionally, the U.S. Constitution requires due process when States acquire privately owned property.
2. **The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970** (as amended). The **Uniform Act** is landmark Federal legislation that applies to all property acquisition for Federal or Federally-funded projects. States, including Maine, have enacted legislation that enables compliance with the Federal law. Maine, through State law, has extended its provisions to State-funded projects.

The **Uniform Act** extends a system of rights and protections to property owners, with corresponding obligations for acquiring agencies. It sets forth a process for establishing value (just compensation) and negotiating with owners to encourage amicable settlements, thereby minimizing having to resort to the courts for condemnation. An important part of the **Uniform Act** provides a system of protections and benefits to persons who are displaced as a result of public projects. The procedural provisions described in this Chapter arise from the requirements of the **Uniform Act**.

3. 23 CFR 710. The **Code of Federal Regulations (CFR)** provides interpretive detail to Federal law and carries the full force and effect of Federal law. The above regulatory reference pertains to real property acquisition policy for highways.
4. 49 CFR 24. This is the Federal regulation that sets forth policy in implementing the relocation provisions of the **Uniform Act**.
5. Title 23 MRSA Part 1. State Highway law contains provisions at Sections 61, 63, 73 through 246, 652 and 653 pertaining to the acquisition of real property and the relocation of displaced persons. Municipalities acquire property under authority of Title 23 Part 3, Chapter 304 (see below). However, this Chapter refers back to Sections 154 through 154E in Part I for purposes of determining damages to real property.
6. Title 23 MRSA Part 3 Chapter 304. This is the Maine Revised Statute pertaining to local highway law. Chapter 304 defines the acquisition of property for highway purposes.

The Maine Statutes referenced above are fully conforming to the detailed provisions of the **Uniform Act** and the implementing regulations in 23 **CFR** 710 and 49 **CFR** 24.

8-1.06 Transfer of Title to the State of Maine

Generally, if a municipality acquires fee title and/or easements on a State or State-aid road, title to the facility will be transferred to the State of Maine when the project is complete. The process for the transfer will be determined in consultation with the Project Development Bureau's Property Office.

8-1.07 Quality Assurance

The Department is committed to continuously improving the quality, efficiency and effectiveness of its programs and services. In partnering with MaineDOT, a municipality or local agency assumes a role in quality assurance. MaineDOT's concept of quality is based on the premise that every person involved in the process at any level has a responsibility for advancing quality. Quality advancement is a responsibility of each employee. It is not exclusively a management, supervisory or audit function. The following activities are appropriate quality advancement measures that can be undertaken by the municipality performing real property acquisition:

1. Perform a second-party internal review of all documents before they are delivered to the property owner. This includes appraisals, agreements, and instruments of conveyance, and offer letters, etc.
2. Provide relevant training to agency personnel who are engaged in specialized right of way activity (e.g., appraisal, negotiations, titles, relocation).
3. Perform quality spot checks of completed work concurrent with any ongoing project acquisition activity.
4. Perform peer reviews of work activity when there is more than 1 staff person involved in property acquisition for right of way.
5. Conduct phone or mail surveys of property owners following acquisition.
6. Develop internal procedures or policy to apply to specific recurring situations or circumstances in order to ensure consistency and equitable treatment.
7. Perform joint project reviews between MaineDOT and local agency management staff.

The above are suggested examples, but not an exhaustive list, of quality assurance actions. Other measures may be appropriate and effective depending on agency staffing, organization and the project. Specific quality assurance measures may be suggested by MaineDOT and incorporated into the MaineDOT/Municipality Agreement.

The agency quality assurance activities do not replace audits and reviews that are performed by State, Federal or local audit authorities. The Department has responsibility under 23 **CFR** 710.201 to monitor property acquisition activities conducted by political subdivisions to ascertain that right of way is acquired in accordance with the provisions of State and Federal laws and as required by Federal Highway Administration directives.

8-2 ACQUISITION PROCESS REQUIREMENTS

The procedural items discussed in this Section are basic requirements of the *Uniform Act* in the process of acquiring real property for highway right of way. They are presented with minimum detail in order to afford flexibility to municipalities to adapt their process to their organizational structure and the nature of the project. Additional information can be secured from the other chapters of this *Manual* that pertain to individual acquisition functions. Also, information and advice will be available from the Senior Property Officers and Property Office.

8-2.01 Title Investigation and Certification

Title investigations and certifications may be performed by municipality legal staff, or may be contracted to private attorneys.

Municipalities will follow the standards established by the Maine State Bar Association for title examinations, including treatment of clouds or defects in title. Exceptions to these standards will be acceptable only on approval of the MaineDOT Legal Services Office.

As soon as the right of way acquisition needs are identified for a project, acquisition to date titles will be prepared for all properties from which either permanent or temporary rights will be acquired. This work will enable detailed plotting of property lines and ownership information on plans.

Detailed guidance on title examinations for highway acquisition, including length of title search history for different types of takings is provided in Chapter 2. Section 2-4.03 provides guidelines for handling clearance of mortgages and other liens on property. On property acquired by deed, liens will be extinguished by securing releases, or the lien holder will be named as payee on the check for settlement in accordance with criteria for different types of acquisitions defined in Section 2-4.03.

A final rundown of title will be performed on all acquisitions immediately prior to recording the acquisition documents. The municipality will secure an attorney's verification that the municipality has secured the required necessary rights to construct the project as designed. Based upon this the highest ranking municipal official will certify that all applicable Federal and State requirements governing these acquisitions are satisfied. A final project certification will be made using the format of the MaineDOT Certification statement referenced in Chapter 1, Section 2.02(b).

8-2.02 Right of Way Mapping

The function of right of way mapping includes gathering and managing real property information and highway system information, and preparing the right of way plans and acquisition documents necessary to acquire property for highway projects. This section provides a brief overview of the mapping function. Detailed requirements for mapping are contained in Chapter 2.

The initial step in mapping is gathering data on ownership and improvements on each parcel of land the project is likely to affect. Mapping personnel then determine property rights underlying the existing or proposed transportation facility. Mappers will translate the information into preliminary right of way maps that show the existing limit of the right of way or other Public ownership. Mappers later prepare final right of way plans that document the new right of way limits of the project, basic design features including entrances and slopes, and the areas and types of acquisitions needed for the project. The final right of way plan serves as the basis for the parcel descriptions included in the property acquisition documents. A municipality will need to provide maps and property plats for the condemnation cases.

Municipalities may contract for performance of mapping functions. Guidance for the mapping process is contained in Chapter 2. The MaineDOT Property Office unit can provide detailed advice on mapping specifications or questions on specific project situations.

Notice to Owner must be provided to owner of the Agency's interest in acquiring real property and the basic protections provided to the owner by law prior to the start of the valuation phase.

8-2.03 Determination of Just Compensation

Just Compensation is the measurement of damages resulting from a taking under power of eminent domain. The agency's estimate of just compensation is determined by means of real estate appraisals, which are independently reviewed by a qualified review appraiser, or MaineDOT approved waiver valuation procedure.

The Just Compensation determination must be made by an authorized official within the acquiring agency. MaineDOT recommends that on municipal acquisitions the official determining Just Compensation be the highest ranking administrative officer in the municipality, typically the Manager or First Selectperson.

Independent contract appraisers in Maine are certified or licensed by the Maine Department of Professional and Financial Regulation. MaineDOT maintains an Appraisal Register, which is a current listing of consultant appraisers who are properly licensed or certified and are otherwise qualified by experience and performance to appraise property to be acquired for highway right of way. MaineDOT requires that a municipality contract with an appraiser on the Appraisal Register in accordance with Local Project Administration certification when not using qualified municipal staff.

When using an independent appraiser, consider the following:

1. Information Provided to the Appraiser. It is critical that the appraiser be provided with sufficient information to value the property rights to be acquired. The following should be provided:
 - a. Name, address and phone numbers of the owner(s);
 - b. Preliminary title information indicating current ownership and recent sales;
 - c. Description of the property rights to be appraised; and scope of work.

- d. Plan sheet indicating property lines and taking, including grade changes and mitigation measures (e.g., driveway restorations or landscaping).
2. Provide Owner the Opportunity to Accompany Appraiser. The appraiser must provide an opportunity to the property owner to accompany the appraiser in an inspection of the property. This is a basic requirement of the **Uniform Act** and state law and cannot be waived. The appraiser should document efforts to contact the owner as well as provide the owner's response to the offer to accompany the appraiser.
3. Appraisal Format and Number of Appraisals. When developing the appraisal, consider the following:
 - a. The Department uses a Short Format Appraisal to value property when there are no damages or special benefits to the remainder and the highest and best use of the remaining property is not changed. This is discussed in Section 4-2.04.
 - b. The Department may waive a formal appraisal of uncomplicated acquisitions where the value of the taking does not exceed \$15,000. In this instance, just compensation is determined by a qualified person, not necessarily an appraiser, through a simplified valuation process based on direct comparison with available market sales information. In order for an assessor to be deemed qualified, they must be either a Certified Maine Assessor or a Certified Assessment Technician. This process is fully described in Chapter 3. It should be noted that the administrative acquisition process is used only when settlement can be reached on this basis after explaining the process to the owner.
 - c. Some acquisitions will require more than one appraisal to be performed. Circumstances for a second appraisal include the property or the acquisition being of high value or uncertainty existing about the highest and best use of the property either before or after the acquisition.
 - d. Prior to acquisition, the Senior Property Officer will review the expected property acquisitions with local officials and jointly agree as to the proper appraisal format to be used and acquisitions in which more than one appraisal is appropriate.
4. Appraisal Review to Determine Value. The offer that will be presented to the property owner as just compensation is determined by a formal review of the appraisal(s) secured for the property. The appraisal review function may be performed by a qualified agency representative or by a licensed or certified contract appraiser. The appraisal review will include a check of the factual information and computations in the appraisal. It will also conclude a fair market value for the acquisition based on an evaluation of support and reasonableness of the appraisal value conclusion. The review appraiser is responsible to secure any needed

- appraisal corrections or additional documentation. The appraisal review process is discussed in Section 4-5.
5. Approval of the Appraisal. After the review is completed, for projects on MaineDOT's system, the appraisals will be approved at the MaineDOT by the Senior Property Officer overseeing the right of way phase of the project.
 6. Written Statement of and Basis for Amount Established as Just Compensation. A written offer of just compensation must be prepared for presentation to the owner, accompanied by a summary statement of the basis for the amount the agency has established as just compensation. The summary must provide the following information to enable the owner to make a reasonable judgment concerning the amount of the offer:
 - a. A description and location identification of the real property and the interest in the real property being acquired;
 - b. Identification of buildings, structures and other improvements, including removable building equipment and trade fixtures, considered to be part of the real property to be acquired; and
 - c. The amount established as just compensation. In the case of a partial acquisition, the compensation for the real property to be acquired and for damages to the remaining property must be stated separately.

8-2.04 Negotiations with the Owner

Agencies that acquire private property for public projects are aware of the need to be sensitive to property owner concerns as well as their rights under the Maine and the U.S. Constitution and laws. Therefore, it is important to negotiate for acquisition with a high degree of preparation, knowledge about the public need (i.e., the project) and professionalism in contacts with owners. Before negotiations can begin, the municipality **must ensure that the NEPA process is complete** and that the appropriate documentations are in place. Failure to complete this step and initiating negotiations prior to NEPA complete will jeopardize all federal participation in the project. The Municipality must check with the MaineDOT's Senior Property Officer or Project Manager to ensure NEPA is complete before making offers. All offers must be made in writing.

The agency representative should present the written offer of just compensation in person, explain the project and the need for acquisition, and address any owner questions about the offer and the valuation process. In addition, the representative should discuss the project schedule and any effects of the acquisition or the project on remaining property. Sufficient time should be provided to the owner to consider the offer and to consult with others concerning the acquisition and the reasonableness of the offer which shall be at least four weeks in the event condemnation is needed. This may require follow-up contacts. The agency has a responsibility to make every effort to acquire property expeditiously by negotiations.

The agency-determined just compensation is the basis for negotiations, but the offer cannot be considered a “take it or leave it” alternative. Information provided by the owner may be cause to revise the offer, for instance, if an important element of value was omitted from the appraisal or the acquisition was not properly described in the appraisal. Also, the agency has authority to administratively increase the offer amount if this would promote a settlement that would be in the overall public interest. Reasons for administrative settlement need not be based on valuation, but might consider other factors including condemnation costs, need for expeditious settlement or the risk of a court award that is significantly greater than the agency determination of value.

Any administrative settlement offer amount that is above the established just compensation must be fully explained in the file by the authorizing official, with an explanation as to how the offer is in the public interest. All negotiation contacts with owners should be documented on a diary log that states the date of contact, the parties contacted and a summary of the discussion. Chapter 5 provides a more detailed discussion of the negotiation process.

8-2.05 Tenant-Owned Improvements

The property acquired may include buildings, structures or other real property improvements that are owned by a tenant rather than the landowner. The tenant may have a lease that specifies that improvements be removed at termination of the lease. Tenant-owned improvements are more likely to be encountered on commercial use property. Examples include trade fixtures in a retail store or a panelized walk-in cooler for a restaurant. A tenant-owned improvement on a residential property might be an outbuilding (e.g., a storage shed) or a swimming pool.

Property that would be considered real property if it is owned by the landowner is also considered real property for acquisition purposes. The agency must acquire interest in tenant-owned improvements that are located on property that is acquired for the project. A separate offer of the value of the improvements must be made to the tenant owner, but only if the landowner first disclaims any interest in the improvements. If the landowner refuses to disclaim interest, the tenant is advised of this fact. The acquisition payment to the landowner will include the value of the improvements. Disputed ownership will then be a matter to be resolved between the landowner and the tenant.

The value of tenant-owned improvements will be determined as the greater of the amount that the improvement contributes to the fair market value of the whole property, or the value for removal, which is the same as salvage value.

8-2.06 Uneconomic Remnants

An uneconomic remnant is a remainder property after acquisition that the acquiring agency determines has little or no utility or value to the owner. The ***Uniform Act*** requires that the agency offer to purchase uneconomic remnants. This requirement is based on the reasoning that an owner should not be burdened by having to maintain and incur taxes and other costs for

a property remnant that is created by the public taking that is of no value or use to the owner. The decision to sell the uneconomic remnant is voluntary on the part of the owner.

8-2.07 Donations

Once they have provided a Notice of Interest to Acquire to the owner, the acquiring agency may accept donation of the property or any part of the compensation that would be due to the owner for the acquisition and must inform the owner of the right to have the agency appraise the property and be offered just compensation. However, in accepting a donation, the agency must receive owner acknowledgement in writing that they understand their rights to an appraisal and just compensation and they release the acquiring agency from its obligation to provide an appraisal. If the motivation for donation is a tax deduction, the owner should be advised that the Internal Revenue Service requires an independent third-party appraisal to support any deduction from taxes. The agency may, at its election, reimburse the owner's cost for an appraisal. The selection of an appraiser and compliance with tax law requirements is the property owner's responsibility.

It is important that the agency not take any action that could be perceived as coercive of the owner to donate property. An example of a coercive act would be to tell an owner: "All your neighbors have agreed to donate. They are going to be unhappy to know this project is delayed because of your refusal to donate". Donations negotiated for the project but prior to signing a project agreement, are still subject to Uniform Act acquisition requirements on Federally funded projects.

8-2.08 Exercise of Eminent Domain

The municipality acquiring real property should make every reasonable effort to settle amicably by negotiations as described above. If municipal officials determine after sufficient contacts that settlement based on negotiations is not feasible, and the project schedule requires immediate taking of property interests, title should be acquired by filing a condemnation order in the manner specified in 23 **MRSA** Chapter 304, Section 3023. The municipality will issue a check in the full amount of determined damages, fair market value, for delivery with the service of record copy of the condemnation order. Service on any one of multiple owners will be considered service on all owners. Title will pass to the municipality on service of the order of condemnation and check, or recordation of the deed or certificate as specified in 23 **MRSA** Section 3024, whichever occurs first.

A property owner who is not satisfied with the determination of damages that are awarded in the process of eminent domain as described above may appeal to the Superior Court in the county where the property lies. The owner's appeal to the Superior Court must be made within 60 days after the day of taking as specified in 23 **MRSA** Section 3029.

8-2.09 Payment for Property Before Being Required to Surrender Possession

The *Uniform Act* requires that no owner be required to surrender possession of real property before the acquiring agency pays the agreed purchase price. This requirement is served in condemnation by the process described in Section 8-2.08. In negotiated settlement, the municipality will deliver a payment check to the owner in the full amount of the agreed settlement before the agency takes physical possession of the property or requires the owner to vacate the property.

8-2.10 Payment for Expenses Incidental to the Transfer of Title

The acquiring municipality will pay actual and reasonable costs of transferring the title to the acquired property, including:

1. Recording fees, transfer taxes and similar expenses, if any, that are incidental to conveying the property to the municipality;
2. Penalty costs, inclusive of lien releases, for prepayment of any preexisting recorded mortgage encumbering the real property; and
3. The pro rata share of real property taxes paid by the owner for the period after the date of vesting title or the effective date of possession of the property, whichever is earlier.

8-2.11 Written Advance Notice to Vacate Occupied Property

No person who is lawfully occupying real property will be required to move from a dwelling or to move a business or farm operation without at least 90 days' written notice from the acquiring agency of the earliest date by which the move is required. The occupant should have a reasonable length of time to find other adequate facilities (e.g., housing or replacement business site) and to effect an orderly relocation.

The timing, content and delivery of a notice to vacate are determined by the Relocation Program procedures described in Section 6.04. If issuance of a formal notice to vacate is required, the municipality should consult with the MaineDOT Senior Property Officer to ensure that the notice complies with all regulatory requirements.

Less than 90 days' advance written notice is permitted, with FHWA approval, if continued occupancy of the property would constitute a danger to the person's health or safety. The determination and circumstances must be included in the project files.

8-2.12 Relocation of Residents or Businesses

The municipality may pay for the relocation of minor personal property items from the acquisition area to remaining property as a direct reimbursement claim based on the owner's actual and reasonable cost.

The relocation of residences, businesses or farms must be undertaken in strict compliance with Subparts C, D, E, and F of the ***Uniform Act*** and Chapter 6 of this *Manual*. Relocation is a highly specialized activity. MaineDOT recommends that the municipality consult with the assigned Senior Property Officer at the earliest time that a possible residential or business displacement is identified. The circumstances will be reviewed and determination made as to whether the relocation function will be performed by the municipality, contracted to a qualified private party or performed by MaineDOT staff.

It is important to know that property acquisitions that involve relocation will require significantly greater lead time than those acquisitions involving land only. There is an absolute requirement to make comparable replacement housing available to each displaced person or household and to provide at least 90 days' notice after a displacee is advised of the availability of replacement housing. The agency must schedule the project to accommodate the relocation time requirements.

Relocation costs must be actual, reasonable and necessary.

8-3 PROPERTY MANAGEMENT

The municipality is responsible for maintenance, security and management of acquired land improvements after acquisition. This includes the following items:

1. Rodent Control. Properties should be inspected after acquisition for rodents and other hazardous conditions. If rodent infestations are found, the municipality must take removal actions to preclude migration to nearby properties. This should be performed before the demolition of any improvements.
2. Hazardous Substances. Buildings containing asbestos or other hazardous materials must be demolished in compliance with State and Federal criteria for these conditions. See Chapter 7 for further information.
3. Security and Safety. The municipality is responsible to maintain safe conditions at acquired sites. This includes preventing blighting influences to adjacent property by removing accumulations of trash and taking measures to control vandalism and dumping. Buildings should be secured appropriately, including boarding or fencing if necessary. Particular attention must be given to removing conditions that could attract and be hazardous to children.
4. Demolition or Removal of Structures. Structures may be sold for removal from the site or be demolished. If structures are sold, the municipality must use a fair and open process for selecting a buyer, require a cash security deposit or bond to guarantee performance, and require insurance to indemnify the municipality and the State from any liability.

The municipality may demolish structures with its own forces or contract for demolition prior to construction, or removal may be included as a work item in the highway construction contract.

The owner of acquired land may retain ownership of structures for removal to remaining property. This should be arranged during the negotiations for the property, with appropriate adjustment to the fair market value to reflect the retention value of the structures.

5. Rental of Acquired Property. Normally, the construction schedule will preclude the rental of acquired property prior to project construction. If the project is delayed or property is acquired significantly in advance of project need, the municipality may allow occupancy for public or private use. If rented, the amount charged may not exceed what is appropriate for short-term occupancy in the area. The rental or use and occupancy agreement should specify that occupancy after agency acquisition does not create any right or obligation by the municipality or MaineDOT for relocation benefits of any kind.

Any revenues that are generated from the rental of property or the sale of improvements will be applied to reduce the net cost of the project.

8-4 PARCEL AND PROJECT RECORDS AND REPORTS

8-4.01 Parcel and Project Files

The acquiring agency will keep a separate file for each real property acquisition and a file for the right of way project as a whole. The records will be sufficient to demonstrate compliance with applicable laws and regulations. The following will be included in the parcel and project files:

1. Right of way map or plan showing the right of way acquired, including parcel numbers, property lines, area acquired and structure improvements and fences;
2. Project plans and property plats, sketches, descriptions, or photos;
3. Property ownership information, including title reports;
4. Appraisal Reports and related assignment and contract documents;
5. Statement of determination of fair market value;
6. Offer letters to property owners;
7. Negotiations logs or contact sheets;
8. Correspondence with property owners and MaineDOT;
9. Settlement agreements and contracts and justifications for administrative settlements;
10. Condemnation documents and filings;
11. Credits for sale or rental of property; and
12. Documents relating to property management or the rental or sale of property and structures.

8-4.02 Project Summary Records

Project summary data should be maintained as agreed in consultation with MaineDOT for each project. This may include a summary sheet showing key dates for each parcel, indicating the following:

1. Appraisal assignment,
2. Date the appraisal was received,
3. Date and amount of the fair market value that was established,

4. Date a written offer was presented to the owner and negotiations were initiated,
5. Date and amount of the settlement,
6. Date condemnation was filed,
7. Date the title was transferred,
8. Costs of excess land and any uneconomic remnants acquired,
9. Incidental expenses by parcel, and
10. Cost of construction items performed for mitigation of damages.

The specific project summary data will vary with the type of project and character of work to be performed. Projects with relocation may require a different data set.

MaineDOT and the municipality are subject to audit by State authorities, the FHWA and the U.S. Department of Transportation. Beyond the information noted above, sufficient documentation should be retained in files to track the origin and basis for any costs that are charged to the project as specified in 2 **CFR** Part 200.

The Department provides summary information on acquisition and relocation annually to the FHWA in order to carry out national program reporting responsibilities. The municipality will provide contributing information on projects under its responsibility.

8-4.03 Acquisition Policy Resources

The following Right of Way Program information resources will be provided to the municipality on initial assignment of responsibility for right of way project acquisition:

1. The MaineDOT *Right of Way Manual*;
2. The FHWA ***Real Estate Acquisition Guide for Public Agencies***;
3. ***Maine Revised Statutes*** Annotated, ***MRSA*** Title 23;
4. U.S. ***Code of Federal Regulations***, 23 ***CFR*** 710, and 49 ***CFR*** 24; and
5. Policy memoranda and guidance issued by MaineDOT and the FHWA.

8-4.04 Confidentiality and Retention of Records

The municipality should ensure that all parcel and project files relating to appraisals and negotiations are secure and that only those persons qualified to access the files are allowed to view them. These records are not available for public information except as noted below and their integrity should be carefully maintained. Access to confidential records should be restricted to officials of the municipality, MaineDOT, the State Auditor and the Federal Highway Administration. Because these data provide the documented support for the establishment and payment of just compensation required by law, they should be secured in a safe area with

backup records developed as considered necessary. This is especially important if the data are maintained in computerized form.

Project and parcel records relating to appraisals and negotiations will be open to public inspection 9 months following the completion date of the project. Records relating to claims appealed to the Superior Court will be open to public inspection following the award of the Court.

Notwithstanding public availability of appraisals and negotiations records above, parcel records may contain information of a personal nature relating to claimant income, assets, tax information etc. This information may be protected from disclosure under privacy laws. Officials should consult the local agency or MaineDOT Chief Legal Counsel before making records available.

The municipality will retain records in accordance with the MaineDOT records retention policy as provided in the MaineDOT/Municipality Agreement.

Local Project Administration Manual & Resource Guide

Utility Coordination



MaineDOT

Integrity - Competence - Service

Revised 2018

Utility Coordination

Municipalities and non-profits undertaking locally administered projects must work with the utilities and any railroad whose facilities may be affected. Utility facilities consist of the following: poles; aerial electric, telephone and cable television lines; underground water, sewer, gas and telecommunications lines; and railroad tracks. Local agencies looking to keep projects on schedule must identify these facilities and contact their owners early.

Chapter 6 of this Manual covers the policies and procedures governing utility coordination on locally administered projects. It includes the following:

- A summary of the coordination process (page 6-1 below);
- Utility coordination checklist (page 6-2);
- Utility relocation costs (page 6-3);
- Accommodating aerial utilities (page 6-3);
- MaineDOT Utility Accommodation Rules (page 6-4);
- Appendix 6A: Model utility letters (page 6-5); and
- Appendix 6B: Model utility certification (page 6-15).



Electronic letters and general information are found on MaineDOT's utilities web page: www.maine.gov/mdot/utilities/utilcoord/

6.1 Summary of Utility Coordination

MaineDOT requires coordination with utilities and railroads on locally administered projects, regardless of funding type. Utility companies often need extensive lead time to schedule work and obtain materials needed to move lines and equipment.

As design work begins, a local agency should consider the following questions:

- What utility facilities exist in the right of way?
- How much room is there for clearing?
- Is the project abutting another project? What was done there?
- Can relocations be reduced and still meet the project need?
- What are the concerns of the utilities?



Early and continuing coordination is critical to keeping a project on track. The earlier that utilities and railroads are contacted, the more likely it is that the utility coordination will go smoothly and the schedule of a project will be met.

6.2 Utility Coordination Checklist

Utility coordination consists of a series of informational exchanges with utilities and railroads that have facilities within the limits of a project. This coordination begins at kickoff and continues through construction.

Below are the standard steps, typically performed by a “utility coordinator” who is either an employee of the agency administering a project or a consultant. Standard utility letters are online: www.maine.gov/mdot/utilities/utilcoord/

1. At kickoff:

- Identify utility and railroad contacts: www.maine.gov/mdot/utilities/contactinfo/
- Email **Utility Letter #1** and a location map to utility/railroad contacts.
- Arrange and conduct a site visit to verify utility/railroad information.

2. Upon completion of survey:

- Email **Utility Letter #2** and topographical survey plans to utility/railroad contacts.
- Arrange for additional survey identified from Utility Letter #2 responses, if necessary.
- Work with utilities to arrange for test pits, if necessary, to locate underground facilities.

3. At preliminary design report (PDR) milestone:

- Email **Utility Letter #3**, preliminary plans and schedule to utility/railroad contacts.

4. When design reaches 75-80% plans complete:

- Email **Utility Letter #4**, 75-80% plans and schedule to utility/railroad contacts for review.
- Hold utility pre-coordination meeting on site to review impacts, relocations and schedules.

5. At Plan Impacts Complete (PIC) milestone:

- Work with right-of-way mapper to accommodate utility impacts resulting from the design.
- Prepare pole list in coordination with utilities.
- Email **Utility Letter #5** and utility special provision (#104) to utilities/railroad for review.

6. At Final Plans, Specifications and Estimate (PS&E) milestone:

- Email final design plans and latest project schedule to utility/railroad contacts
- Finalize special provision 104 (utilities) for inclusion in the bid documents for the project
- Submit utility certification to MaineDOT project manager.

7. After contract award: Pre-construction meeting

- Notify contacts of the pre-construction / pre-utility meeting (**Utility Letter #6**).
- After meeting, distribute minutes to utility/railroad contacts (**Utility Letter #7**).

8. During construction:

- During construction, the contractor has primary responsibility for coordinating utility work.
- If a utility is unresponsive, the construction resident should try to resolve the issue.
- If the resident is unsuccessful, an issue should be elevated to the MaineDOT project manager and, if necessary, the MaineDOT staff utility coordinator assigned to a region.

6.3 Utility Relocation Costs

The State of Maine and local governments cannot reimburse utility companies for moving poles, underground lines and other facilities already within a highway right-of-way when transportation improvements require such relocations. The utilities must pay to move their facilities.

There is legal precedent. The Maine Supreme Judicial Court has found that revenue from taxes and fees on fuel, licenses and registrations cannot be used to pay for utility relocations. Since the revenue available to MaineDOT and municipalities for utility reimbursement would come primarily from these sources, it would be unconstitutional for a public agency to use this money for utility facility relocations.

➡ See *First National Bank of Boston, et al, v. Maine Turnpike Authority, et al*, 153 Me. 131.

6.4 Accommodating Aerial Utilities

MaineDOT will accommodate overhead utilities already located within a highway right-of-way if a project requires poles to be moved. This policy applies to locally administered projects, as well. Sufficient property rights may be acquired for project design purposes to enable the utilities to place their poles consistent with a project’s design and to carry out adequate tree trimming for immediate needs – in some cases up to 8 feet beyond the outermost conductor.

Consider these guidelines when deciding whether to acquire rights specifically for trimming needs:

- Trimming needs should be accommodated only on parcels where an agency plans to obtain rights for highway purposes that are necessary for a project;
- Trimming needs should *not* be accommodated if they will cause significant severance issues;
- Trimming needs should *not* be accommodated if they will cause additional impacts to wetlands or other natural resources that could trigger mitigation;
- Trimming needs should *not* be accommodated if they will cause additional impacts to historic properties, properties subject to section 4(f) or 6(f) requirements, or properties not subject to MaineDOT’s authority of eminent domain;
- Accommodating trimming needs is *not* required when the existing right-of-way width will accommodate the project improvements and new utility poles, and the only reason to acquire more right-of-way would be to achieve the maximum 8-foot offset.



Maine law prohibits local governments and the State from acquiring rights only to benefit utilities, as covered in section 6.3 above, “Utility Relocation Costs.” These include aerial and guying rights, which utilities must obtain if clearance for trimming and guying cannot be accommodated within the right-of-way acquisitions required for highway design purposes.

6.5 MaineDOT Utility Accommodation Rules

The primary reference document for utility relocations is MaineDOT’s Utility Accommodation Rules, governing the accommodation of utility facilities within the limits of state and state-aid highways.

The rules establish administrative procedures and requirements for location, method of installation, maintenance, adjustment and relocation of utility facilities. Within state and state-aid highways, these rules supersede less stringent standards established by the Maine Public Utilities Commission.

MaineDOT developed the rules to protect public safety and to safeguard the integrity and capacity of public highways, while allowing for placement of utility facilities that serve the public good.

The Utility Accommodation Rules are found online: www.maine.gov/mdot/utilities/

6.6 Utility Special Provision

A special provision labeled “Section 104 Utilities,” must be developed and inserted into the contract book for every project to ensure that the contractor and utility companies can coordinate the work during construction. The standard special provision should provide the following information:

- Identify utility, with contact information;
- Outline type of work;
- Time needed to complete work;
- Sequence of work;
- Any special considerations.

A fillable utility special provision is online: www.maine.gov/mdot/utilities/utilcoord/

6.7 Utility/Railroad Certification

Before a locally administered project may be put out to bid, the municipality or other local agency managing it must certify that all required utility and railroad work has been identified and that arrangements have been made to complete this work. This is required by federal regulation 23 CFR, section 636.309: “Authorization.” *An example of this certification is found in Appendix 6B of this chapter, on page 6-15.*

MaineDOT project managers *cannot* authorize local agencies to advertise for construction bids without receiving signed utility certifications. Typically, a utility certification is submitted with the final Plans, Specifications and Estimate (PS&E) package, covered in Chapter 7 of this Manual, “Final PS&E Package.”

The certification letter in Word is found in the “Utility” section of the LPA Documents web page: www.maine.gov/mdot/lpa/lpadocuments/

Appendix 6A: Model Utility Letters

- ❑ Electronic templates of the seven letters in this section are on the Utilities web page: www.maine.gov/mdot/utilities/utilcoord/



IMMEDIATE RESPONSE REQUESTED

Date _____

RE: Identification of Utility Facilities

Town/City: _____

Project WIN: _____

Location: _____

To whom it may concern OR Dear Sir/Madam:

The Municipality of _____ is planning _____

Beginning... or Project Details... _____

Enclosed you will find a location map to further assist you in locating the proposed project.

Please complete and return the brief questionnaire attached to this letter. The information provided here will allow our project designers to recognize the presence of existing facilities or plans to install additional facilities within the next five years. Your responses will enable us to better coordinate our work with you throughout this project.

PLEASE NOTE, THAT IF YOU ARE THE POLE OWNER, OR HAVE MAINTENANCE RESPONSIBILITIES ON A JOINT POLE AGREEMENT, PLEASE IDENTIFY ALL OF THE ATTACHING ENTITIES. THIS INFORMATION IS CRITICAL IN IDENTIFYING ANY UTILITIES WHICH MAY NOT HAVE BEEN IDENTIFIED AS PART OF THIS INITIAL PROCESS.

The Work Identification Number (WIN) assigned to this project is _____ and should be used on any future correspondence regarding this project.

This project is scheduled for design OR construction OR Advertise for the summer of “__”. If you have any questions or concerns, please feel free to contact me at (XXX) XXX-XXXX, or by email at _____. Thank you for your cooperation.

Sincerely,

Utility Coordinator

Enclosures: Questionnaire Response Form
Project Location Map OR Project Alignment Map

****IMMEDIATE RESPONSE REQUESTED****

RE: _____

Date

Town/City: _____

Project WIN: _____

Location: _____

Utility Coordinator: _____ – Coordinator

Street

Town, ZIP

Cell: XXX-XXXX

Fax: XXX-XXXX

E-Mail: coordinator email

Please complete the following short questionnaire and fax, email or send via mail. The following may be filled out electronically in Microsoft Word by using the “TAB” key.

Utility:

Date Form Submitted:

1. Does the utility you represent presently have facilities within the project limits?

Yes No

2. What type of facilities do you have in the project area?

Underground

Aboveground

3. Pole Owner:

Attachments:

4. Do you plan on installing any facilities within the project limits in the next 5 years?

Yes No

6. Contact person for project coordination:

Name:

Address:

Tel:

Cell:

Fax No:

E-mail:

6. Contact person for construction:

Name:

Address:

Tel:

Fax No:

E-mail:

7. Comments

{Date}

{Utility Company Address}

RE: Review of Survey Plans, {Town}, {Location}, {MaineDOT WIN}

Dear {Addressee}:

Enclosed please find a set of survey plans for the above referenced project being developed by _____ on behalf of the Municipality of _____.

Please review the locations of your existing facilities as shown on these plans and complete the brief questionnaire attached to this letter. Identification of any incorrectly located or omitted facilities now will enable us to make the appropriate corrections before substantial design has occurred. I ask that you return the attached questionnaire along with any additional comments you may have within two weeks.

This project is scheduled to be advertised on _____. If you have any questions or concerns, please feel free to contact me at **{Phone Number and Email}**. Thank you for your cooperation.

Sincerely,

Utility Coordinator

Enclosures: Survey Plans
Survey Plan Questionnaire

{Town}
 {MaineDOT WIN}
 {Date}
 {Utility Name}
 {Consultant or Town LAP contact, with contact information including Fax, email,
 telephone, and mailing address}

Survey Plan Questionnaire

{Utility Name}

Please complete the following short questionnaire and Fax, e-mail or send via mail. The following may be filled out electronically in Microsoft Word by using the "TAB" key.

QUESTION	RESPONSE
1. Are all of your facilities within the project limits on the survey plans?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Are your facilities shown correctly on the survey plans?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Do your facilities or portions thereof require unique considerations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Are you considering upgrading or replacing any of your facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Do you feel that an on-site review of the project is required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Will you be forwarding additional information from your records?	<input type="checkbox"/> Yes <input type="checkbox"/> No
RESPONSE BY:	
DATE:	
TELEPHONE:	
EMAIL:	
(USE THIS SPACE FOR ANY CLARIFICATION OR ADDITIONAL INFORMATION)	

{Date}

{Utility Company Address}

Subject: Review of Preliminary Plans, **{Town}**, **{Location}**, **{MaineDOT WIN}**

Dear **{Addressee}**:

Attached you will find preliminary design plans and right-of-way maps for the subject project. At your earliest convenience, **please review these plans to establish the following:**

- What potential conflicts exist between the proposed design and your existing facilities?
- Is additional data gathering (such as test pits) required?
- Aerial Utilities: Please develop a list of preliminary proposed pole locations in compliance with the applicable safety standards and the MaineDOT's Utility Accommodation Rules, 17-229 CMR Chapter 210.
- Underground Utilities: Please develop preliminary proposed underground plant relocation plans for any required relocations or proposed installations in accordance with applicable standards and the MaineDOT's Utility Accommodation Rules, 17-229 CMR Chapter 210.
- If your facilities are located on property which is either owned by your company or for which you have an easement, you may be entitled to reimbursement in accordance with Federal Aid Policy Guide, Title 23, Code of Federal Regulations, Chapter I, Subchapter G, Part 645, Subpart A. Please contact this office prior to preparing any plans or estimates.

Please note: These plans are for Utility purposes only, to assist in planning utility relocations required as part the Project, and are not intended for public distribution. Although, not confidential, discretion is requested by the Department in sharing this information with the public. It is recognized, that utilities may need to acquire rights beyond those shown on the attached plans, if so, please contact this office so that the Department can provide proper notification of the project to the public prior to the utility obtaining additional rights.

The Municipality intends to advertise this project on **{Date}**. If you have any further questions, please contact me at **{Phone Number and Email}**. Thank you for your cooperation.

Sincerely,

Utility Coordinator

Enclosure: Preliminary Plans & Right-of-Way Maps

{Date}

{Utility Company Address}

RE: Pre-coordination Meeting & Review of Construction Plans, {Town}, {Location},
{MaineDOT WIN}

Dear {Addressee}:

Enclosed please find one copy of final construction plans for the above listed project. These plans are only intended for information and planning purposes at this time. No actual relocation of facilities should be made because of these plans.

Please review your proposed pole and/or proposed underground plant locations on the Department's plans. If changes are necessary, they should be communicated to us prior to the Pre-coordination Meeting. **The Pre-coordination Meeting has been scheduled for {Date, Time and Place of Pre-coordination Meeting}. It is requested that you be prepared to assign working days to your required utility work at this meeting.**

This project is scheduled for advertising {Date}. If you have any questions or concerns, please feel free to contact me at {Phone Number and Email}. Thank you for your cooperation.

Sincerely,

Utility Coordinator

Enclosure: Construction & R/W Plans

{Date}

{Utility Company Address}

RE: Draft Special Provisions, **{Town}**, **{Location}**, **{MaineDOT WIN}**

Dear **{Addressee}**:

I intend to include the enclosed Special Provisions in the contract documents for the subject project. It includes scheduling and descriptive information regarding work to be done by your organization.

If the text does not accurately reflect your intentions, please contact this office immediately at **{Phone Number and Email}**. Thank you again for your cooperation.

Sincerely,

Utility Coordinator

Enclosure: Proposed Utility Special Provisions

{Date}

{Utility Company Address}

RE: Pre-construction Meeting, **{Town}**, **{Location}**, **{PIN}**

Dear **{Addressee}**:

A pre-construction utility meeting for the subject project has been arranged for **{Date, Time and Place of Pre-construction Meeting}**. The purpose of this meeting is to discuss the coordination of work between the contractor and the utilities and any additional considerations or concerns that may exist. Your attendance at this meeting is critical to the success of the project and greatly appreciated.

If you need more information, please contact me at **{Phone Number and Email}**.

Sincerely,

Local Project Administrator

{Date}

{Utility Company Address}

RE: Pre-construction Meeting Minutes, **{Town}**, **{Location}**, **{PIN}**

Dear **{Addressee}**:

This is my understanding of the issues discussed and the conclusions reached at the pre-construction utility meeting held on **{Date, Time and Place of Pre-construction Meeting}**. It is understood that the dates and times agreed upon and summarized herein assume reasonable weather conditions and freedom from emergencies.

The following representatives were present:

<u>Name</u>	<u>Company</u>	<u>Telephone #</u>
--------------------	-----------------------	---------------------------

{Attendance List}

{Meeting Summary}

I have attempted to summarize our meeting as accurately as possible. If you feel that any of the items discussed herein are misrepresented in any way, please contact me within ten working days. In the absence of any corrections or clarifications, it will be understood that these minutes accurately summarize our discussions. Thank you for your participation and continued efforts in making this a successful project.

Sincerely,

Local Project Administrator

Appendix 6B: Model Utility Certification

- An electronic template of this letter is available online:
www.maine.gov/mdot/utilities/utilcoord/



Communication 13: Utility Certification (Federal Project)

INSTRUCTIONS: This must be submitted on letterhead with the PS&E package.

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Utility Certification, Federal Project
MaineDOT WIN:

Dear [NAME]:

The Municipality of [NAME] certifies that all utility and railroad work necessitated by the subject project has been identified and coordinated with the respective parties. All arrangements have been made for utility work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with Title 23 in the Code of Federal Regulations, Part 645, "Utilities," subparts A and B.

Based on 23 CFR 635.309(b), the Municipality further certifies either that all railroad work has been completed or that all arrangements have been made for such work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with 23 CFR 140 Subpart I and 23 CFR 646 Subpart B.

Listed below are utilities/railroads having facilities within the project limits:

Utility/Railroad

Impacted facilities? (yes/no)

All of the entities listed above were first informed of the project on [DATE], were involved as necessary throughout design, and received the latest plans on [DATE]. Furthermore, the above entities have been informed of the proposed advertising date: [DATE]. There are no direct payments anticipated to utilities/railroads as a part of this project.

The primary utility/railroad contacts involved in the coordination of this project are as follows:

Utility/Railroad

Contact Name

Telephone #

Sincerely,

Local Project Administrator

Local Project Administration Manual & Resource Guide

Final PS&E Package



MaineDOT

Integrity - Competence - Service

Revised September 2019

Final PS&E Package

Before a project may put out to bid, the agency administering it must submit the final plans, specifications and construction estimate (PS&E) to MaineDOT for review, along with a request for construction authorization. At this point, the construction plans and specifications must be complete, all permits must be in hand, and all right-of-way must have been acquired.

Chapter 7 of this Manual is set up to explain the documentation requirements at the project stage known as final PS&E. It contains the following:

- A summary of the requirements (page 7-1);
- A checklist for final PS&E, *revised* (page 7-2);
- Appendix 7A: Project certifications (page 7-3);
- Appendix 7B: Bid package checklist, *revised* (page 7-10).



7.1 Summary of PS&E Requirements

Final PS&E is the stage before a project is put out to bid. At this point, right-of-way and environmental work must be completed. If there is federal money, the U.S. Department of Transportation must have issued the appropriate document under the National Environmental Policy Act (NEPA) – in most cases what is known as a Categorical Exclusion, or “CE.”

The certifications listed below must be submitted with the final PS&E package for a project. Templates are found online on the LPA Documents page in the section *Letters to MaineDOT*: www.maine.gov/mdot/lpa/lpadocuments/

- Public process certification (Communication 10), found on page 7-4;
- Environmental certification (Communication 12), on page 7-5;
- Utility certification (Communication 13), on page 7-6;
- Right-of-way certification (Communication 14), on page 7-7; and
- Traffic Analysis and Movement Evaluation (TAME) certification, from MaineDOT.

Remember: A local agency cannot advertise for construction bids without receiving written authorization from MaineDOT. This happens after:

- MaineDOT has reviewed and signed off on the final PS&E package as complete; and
- The local agency administering the project has requested construction authorization from MaineDOT, using Communication 15, shown on page 7-9 of this chapter; and
- The U.S. Department of Transportation has obligated federal construction funding.

7.2 Checklist: Final Plans, Specifications & Estimate

Below are the standard steps necessary for a project to be ready to go out to bid.

- Final design plans checked for the following details:**
 - Title sheet;
 - Plan views;
 - Profiles, if applicable;
 - Cross-sections;
 - Typical sections;
 - Documentation of approved design exceptions; and
 - PE stamp of engineer of record.
- Engineer's estimate finalized**, as follows:
 - Estimate uses MaineDOT item numbers
 - Each item in engineer's estimate is shown on the plans
 - Estimate of quantities matches Schedule of Items in contract book
- Bid book contains the following standard items:**
 - Notice to Contractors;
 - Contract Agreement, Offer and Award form;
 - Sample contract performance and payment bond forms;
 - Schedule of Items, with MaineDOT item numbers;
 - Davis-Bacon prevailing wage rates (*federally funded projects*);
 - Maine Department of Labor wage rates (*projects >\$50,000 with any state funds*) - **NEW**;
 - Special provision 104 (Wage Rates), if a project has state funds of any amount;
 - Special provision 104 (Utilities), if applicable;
 - Special provision 104.3.8 (Electronic Payroll), *for federally funded projects*;
 - Special provisions 401 and 403 (Hot Mix Asphalt) from MaineDOT, if applicable;
 - Form FHWA-1273 (*federally funded projects*);
 - Signed Title VI Assurances (*federally funded projects*);
 - Environmental summary sheet from MaineDOT (*federally funded projects*).
- PS&E package approved by MaineDOT project manager:**
 - Public process certification attached (*Communication 10*)
 - Environmental certification attached (*Communication 12*)
 - Utilities certification attached (*Communication 13*)
 - Right-of-Way certification attached (*Communication 14*)
 - Traffic Analysis and Movement Evaluation (TAME) certification attached
 - MaineDOT will prepare TAME certification
- Construction authorization request sent to MaineDOT** (*Communication 15*).
- Construction authorization received in writing from the MaineDOT project manager.**
Note: If you bid a project before getting approval, you risk losing the money for the project.

Appendix 7A: Project Certifications

- ❑ Electronic versions are posted in the “Letters to MaineDOT” section of the LPA Documents web page: www.maine.gov/mdot/lpa/lpadocuments/



INSTRUCTIONS: *This must be submitted on letterhead with the final PS&E package.*

[Date]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification, Federal Project
MaineDOT WIN [NUMBER]

Dear [NAME]:

The Municipality of [NAME] certifies that a public process was carried out for the subject project in accordance with Title 23 in the Code of Federal Regulations, Part 771.111, satisfying a pre-construction requirement in the executed project agreement with MaineDOT.

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

I have attached for your information the following:

- A copy of the notification that was sent to abutters by registered mail;
- A copy of the meeting notice;
- Sign-in sheet; and
- Meeting minutes.

If you need any additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[Date]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Environmental Certification, Federal Project
MaineDOT WIN [NUMBER]

Dear [NAME]:

If permits were required, use this paragraph:

The Municipality of [NAME] certifies that it has obtained all permits and approvals necessary to carry out the subject project, satisfying one of the pre-construction requirements in the executed project agreement with MaineDOT. Attached are copies of the permits, which are required for MaineDOT to complete the Environmental Summary Sheet for the bid package

If NO permits were required, use this paragraph:

The Municipality of [NAME] certifies that no permits were needed for the subject project. This certification satisfies one of the pre-construction requirements in the executed project agreement with MaineDOT. ***NOTE: If no permits were required, please briefly explain.***

Sincerely,

[NAME], Local Project Administrator

Enclosures: Environmental permits
Cc: MaineDOT Environmental Office

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[Date]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 Sate House Station
Augusta, ME 04333-0016

Subject: Utility Certification, Federal Project
MaineDOT WIN [NUMBER]

Dear [NAME]:

The Municipality of [NAME] certifies that all utility and railroad work necessitated by the subject project has been identified and coordinated with the respective parties. All arrangements have been made for utility work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with Title 23 in the Code of Federal Regulations, Part 645, "Utilities," subparts A and B.

Based on 23 CFR 635.309(b), the Municipality further certifies either that all railroad work has been completed or that all arrangements have been made for such work to be undertaken and completed as required for proper coordination with the construction schedule, in accordance with 23 CFR 140 Subpart I and 23 CFR 646 Subpart B.

Listed below are utilities/railroads having facilities within the project limits:

<u>Utility/Railroad</u>	<u>Impacted facilities? (yes/no)</u>
-------------------------	--------------------------------------

All of the entities listed above were first informed of the project on [DATE], were involved as necessary throughout design, and received the latest plans on [DATE]. Furthermore, the above entities have been informed of the proposed advertising date: [DATE]. There are no direct payments anticipated to utilities/railroads as a part of this project.

The primary utility/railroad contacts involved in the coordination of this project are as follows:

<u>Utility/Railroad</u>	<u>Contact Name</u>	<u>Telephone #</u>
-------------------------	---------------------	--------------------

Sincerely,

[NAME], Local Project Administrator

INSTRUCTIONS: If a local agency acquired rights or otherwise carried out the right-of-way process, this letter must be signed by the agency's highest-ranking administrative officer and submitted with the attached certificate to MaineDOT with the final PS&E package for a project.

[Date]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification, Federal Project
MaineDOT WIN [NUMBER]

Dear [NAME]:

If right-of-way was acquired, use this statement:

Attached is the required certification that all right-of-way necessary for construction and maintenance of [PROJECT] in the Municipality of [NAME] has been acquired, in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the executed project agreement with MaineDOT. The Municipality certifies that it has legal and physical possession of all rights needed for the project.

If NO right of way was required, use this statement:

The Municipality of [NAME] certifies that no right-of-way acquisition was required for the subject project, since all planned work will occur within the existing public right-of-way. If you require additional information, please let me know.

All information about the right-of-way process can be made available upon request. If you need additional information, please let me know.

Sincerely,

Highest-ranking administrative officer

Enclosure: Right-of-way certificate

MUNICIPALITY OF _____

RIGHT OF WAY CERTIFICATE

FEDERAL PROJECT		WIN	
-----------------	--	-----	--

ROUTE		LOCAL NAME	
-------	--	------------	--

RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:

Property Owners		Fee Simple Parcels		Easement Rights	
-----------------	--	--------------------	--	-----------------	--

Displacement Summary:		Number of Cases
Number Displaced		<input type="text"/>
Number Relocated		<input type="text"/>

The Municipality of _____ hereby certifies that the right to occupy and use all the right of way necessary for this project has been acquired by deed, condemnation or permit to work. All right-of-way has been or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property and all relocations have been accomplished.

Without Exception

Legal Possession completed as of

All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by federal regulation.

Signed by:

Highest-Ranking Administrative Officer	Date

INSTRUCTIONS: This must be submitted on letterhead with the final PS&E package.

[Date]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Authorization Request, Federal Project
MaineDOT WIN [NUMBER]

Dear [NAME]:

Attached for your review, comment and approval are the final plans, specifications and estimate (PS&E) for [insert project scope] in the Municipality of [NAME].

Also attached are the following certifications:

- Communication 10 (public process);
- Communication 12 (environment);
- Communication 13 (utilities); and
- Communication 14 (right of way, if applicable).

The Municipality hopes to advertise for construction services on [insert date], but we understand that we cannot put the project out to bid without MaineDOT's written approval.

We further acknowledge that construction authorization will be contingent upon:

1. The Municipality addressing to MaineDOT's satisfaction any final comments on the PS&E package; and
2. MaineDOT obtaining authorization for the construction stage of the project from the Federal Highway Administration.

Sincerely,

[NAME], Local Project Administrator

Enclosure: Draft PS&E package

Appendix 7B: Bid Package Checklist

Updated September 2019



FINAL PLANS & BID DOCUMENTS

Note: This section was updated in September 2019, offering guidance on standard items for federally funded bid packages. Check online for the latest versions of all inserts and special provisions: <https://www.maine.gov/mdot/lpa/lpadocuments/>.

Final Plans

1. Title page is signed with a professional engineer's stamp.
2. Schedule of items matches the final engineer's estimate.
3. All pay items on the design plans also are on the schedule of items and engineer's estimate.

Specifications

1. Make sure that all project specifications and special provisions include the following:
 - Description of the work;
 - Materials required to complete the work;
 - Requirements to construct and accept the work;
 - Measurement, specifying what, when and how to measure for payment; and
 - Basis of payment for the work.

Bid Documents

Standard bid book inserts are found under "Bid Documents" on this web page: www.maine.gov/mdot/lpa/lpadocuments/

1. Bidding Instructions
 - The latest inserts from MaineDOT must be at the front of the bid book. The instructions will be labeled Federal or State, depending upon funding source.
2. Notice to Contractors, includes:
 - Stamp of Engineer of Record, as applicable and required by law
 - Bid opening date and time (*pay attention to holidays*)
 - Project WIN, description, location, and outline of work
 - Basis of award
 - Disadvantaged Business Enterprise requirements (*federally funded projects*)
 - Statement that MaineDOT Standard Specifications shall apply
 - Bid bond amount (5% of bid, typically)
 - Cost of copies of bid book and plan sets

- Projects less than \$125,000 require no contract performance surety bond or contract payment surety bond. Bonds are required for projects exceeding \$125,000.
 - For projects greater than \$300,000, a bidder must complete a highway, bridge or project specific pre-qualification through MaineDOT to be awarded the contract.
 - For projects less than \$300,000: “Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract.”
3. Special Provision 102.7.3, Acknowledgement of Bid Amendments
 4. Schedule of Items, using MaineDOT item numbers
 5. Contract Agreement, Offer and Award form: two copies
 - Check Section A, “The Work,” for correct WIN, location and scope of work
 - Check Section B, “Time,” to be sure completion date matches Special Provision 107
 - Check Section F, “Offer,” to be sure the paragraph labeled “Fourth” references Disadvantaged Business Enterprise (DBE) requirements (*federally funded projects*)
 6. Forms labeled “Sample” – one copy each:
 - Contract Agreement, Offer and Award
 - Contract Performance Bond
 - Contract Payment Bond (Surety Company Form)
 7. Davis-Bacon prevailing wage rates (*federally funded projects*)
 - Check for latest General Decision by county and type of work:
www.wdol.gov/dba.aspx
 8. Prevailing state wage rates established by the Maine Department of Labor – **NEW**
 - *Starting with projects advertised after **September 19, 2019**, this applies to public construction contracts of \$50,000 or more containing any amount of state funds.*
 9. Special Provision (SP) Section 104, Wage Rates
 10. SP Section 104, Utilities
 11. SP Section 104.3.8, Electronic Payroll Submission (*federally funded projects*)
 12. SP Section 105.11, Buy America (federally funded projects)
 13. SP Section 105, General Scope of Work: Limitations of Operations (*if applicable*)
 14. SP Section 105, Over Limit Movement Permits (*if applicable, based on nature of work*)
 15. SP Section 107, Prosecution and Progress: Scheduling of Work
 - Ensure completion date matches date in Contract Agreement, Offer & Award.

16. SP Section 108, Asphalt Escalator (*if more than 500 tons of HMA is used*)
 17. SP Section 401, Hot Mix Asphalt Pavement
 18. SP Section 403, Hot Mix Asphalt Pavement (obtain from MaineDOT)
 19. SP Section 502, Structural Concrete (if there is concrete work)
 20. SP Section 608, Detectable Warnings (*for sidewalks*)
 21. SP Section 609, Structural Concrete: Concrete Slipform Curb (*if applicable*)
 22. SP Section 634 Highway Lighting (*if highway lighting is part of the contract*)
 23. SP Section 643, Traffic Signals (*if traffic signals are part of the contract*)
 24. SP Section 652, Maintenance of Traffic
 25. SP Section 656, Temporary Soil Erosion and Water Pollution Control
 - MaineDOT's Environmental Office will prepare this document, if necessary
 26. MaineDOT Standard Detail updates
 - Latest version is online: <https://www.maine.gov/mdot/contractors/publications/>
 27. MaineDOT Supplemental Specification: Corrections, Additions & Revisions
 - Latest version is online: <https://www.maine.gov/mdot/contractors/publications/>
 28. Special Provision, Projects Funded by the Transportation Alternatives Program (TAP) – Appendix A to Division 100
 - Prohibits use of convict labor on projects using Transportation Alternatives funding
 - Check with MaineDOT if there is question about the funding source
 29. Appendix A to Division 100: Section 1 – Bidding Provisions (*federally funded projects*)
 - This is FHWA Form 1273 and must be inserted into bid books for federal-aid projects
 30. Signed Title VI Assurances from local sponsor of project (*federally funded projects*).
 - Must be signed by highest-ranking municipal officer and include Appendices A and E
 31. Environmental Summary Sheet
 - The MaineDOT Environmental Office prepares this document on federal projects
-

Local Project Administration Manual & Resource Guide

Advertise & Award



MaineDOT

Integrity - Competence - Service

Revised 2017

Advertise & Award

Construction work on projects with federal and state money is performed primarily by contractors hired through competitive bidding. A low-bid process must be used by law; contractors based in a specific community or region cannot be favored. (The exception to the bidding requirement is force account work, covered in Chapter 9 of this Manual.)

When design, permitting and right-of-way work is finished, the local agency administering a project may advertise for construction bids after MaineDOT has signed off on the final plans, specifications and estimate package (PS&E) and given construction authorization.

Chapter 8 of this Manual provides guidance on the requirements for advertising a project for bid, opening and reviewing bids, and awarding a construction contract. It contains the following:

- A summary of the required steps (pages 8-1 to 8-4);
- A checklist covering the advertise and award process (page 8-5);
- Sample project award request (page 8-6);
- Sample Notice of Intent to Award (page 8-7); and
- Advertise and Award flowchart (page 8-8).



Caution: If you advertise a federally funded project before getting written authorization, you will forfeit **ALL** of the federal money and any matching state funds for the project.

8.1 Bidding Requirements

Except for work done by force account, MaineDOT requires competitive bidding on projects with federal and state funding. Sections 102 and 103 of MaineDOT's Standard Specifications govern the process: www.maine.gov/mdot/contractors/publications/standardspec/

General procedures include the following:

- Local agencies often seek bids through a notice to contractors advertised in a newspaper. The notice provides the deadline for sealed bids, the time and location of bid opening, the location and description of the work, and any pre-qualification requirements.
- Projects may be advertised on municipal websites, and MaineDOT will post advertised locally administered projects on its website: www.maine.gov/mdot/contractors/
- The bidding period must be at least **3 weeks**; it can be longer if an agency so chooses.
- The local agency administering a project may hold a **pre-bid meeting** enabling contractors to view the project and submit questions, but this isn't mandatory.

- ❑ **Questions** must be submitted in writing to the contact listed in the notice to contractors, at least 48 hours before bid opening.
 - The person answering should repeat the question and provide the same answer to all bidders in writing through amendments or at the pre-bid conference.
 - Amendments should be posted online, if that is how a project is being advertised.
- ❑ During the bidding period, the MaineDOT project manager must sign off on any bid **amendments** that change the approved plans or specifications.
- ❑ The notice to contractors must specify the **date and time** at which sealed bids will be opened. If that date changes, bidders must be notified of such through addenda and an announcement made before the originally scheduled date and time.

8.2 Bidder Pre-qualification

Bidders must demonstrate the ability to complete certain types of projects successfully, a requirement that must be included in the notice to contractors for a project, as follows:

- ❑ If the estimated construction cost is **greater than \$300,000**, a bidder must complete a highway, bridge or project-specific pre-qualification to be awarded the contract: www.maine.gov/mdot/contractors/prequal/
- ❑ If the estimated construction cost is **less than \$300,000**, a bidder must demonstrate successful completion of projects of similar size and scope to be awarded the contract.

Note: Contractors that have been debarred cannot be awarded federal or state contracts. Check with MaineDOT to find out if any bidder on your project is debarred.

8.3 Bid Opening

All sealed bids received in accordance with the terms of the advertisement are opened and read publicly at the time and place specified in the notice to contractors or any bid amendments. Usually, only the total price of each bid is read.

A contract must be awarded to the lowest responsive and responsible bidder for bid amount. A bid is responsive if it meets the requirements of the advertisement and project specifications.

Remember: Negotiating with the apparent low bidder before awarding a contract is **prohibited**. Doing so will jeopardize the money for your project.



If a local agency deems the lowest responsive bid to be unacceptably high, **ALL** bids must be **rejected**. In such a case, the local project administrator must notify the MaineDOT project manager. The work may be re-advertised after adjustments are made in consultation with MaineDOT.

8.4 Bid Review

After the bid opening, the local project administrator or qualified designee must review the bids for errors and discrepancies. This analysis should include the following:

- Reviewing unit bid prices for obvious mathematical or material unbalancing that may cause doubt about a contractor’s ability to meet the project specifications.
➔ Refer to section 103.1.2 of MaineDOT’s Standard Specifications for definitions.
- Checking numerical and written unit prices. (If they differ, the written unit price applies.)
- Checking all mathematics, including multiplication of unit price and quantity, for total item cost and summing items for total bid;
- Reviewing bid and alternatives to ensure that the apparent low bidder meets the requirements of the bid and available funds.



If irregularities in a bid proposal are found, the reviewer may deem them curable or non-curable.

➔ Refer to section 102.11 of MaineDOT’s Standard Specifications, “*Bid Responsiveness*.”

8.5 ‘Non-curable’ Bid Defects

Defects and discrepancies found in bid documents are “non-curable” – meaning that a contractor will have no chance to correct them – if they cast doubt on a bidder’s total bid amount or the bidder’s ability to complete the work within the contract timeframe. A bid must be **rejected** if any of these non-curable defects is found:

- The bid and bid guaranty are not delivered to the precise location and by the precise time set forth in the Notice to Contractors or any applicable bid amendment;
- The bidder is debarred or otherwise ineligible to bid on the project;
- The bid is not signed by a duly authorized representative of the bidder;
- A bid guaranty meeting the specifications for the project is not submitted;
- The unit or lump sum price for any item is missing or is illegible;
- The bid contains any conditional or alternate bidding language, including the right to accept or reject an award of the contract;
- The bidder submits more than one bid for the same contract, or the bidder and any related entity each submit a bid for the same contract;
- There is substantial evidence of collusion by the bidder; and
- The bidder fails to comply with any provision in the bid documents that expressly indicates that such non-compliance will cause bid rejection.

8.6 'Curable' Bid Defects

Not all defects will nullify a bid proposal. A bidder may be given the opportunity to correct certain “**curable**” defects within a set amount of time, when:

- The bidder only signs one of the Contract Agreement, Offer & Award forms;
- The bid is not submitted on forms provided by the agency in charge of the project or on identical copies thereof;
- The total sum of the items provided in the schedule of items is missing;
- Prices or signatures on the bid or bid guaranty are not in ink;
- A defect doesn't raise a significant question about the total bid amount or the bidder's ability to complete the work.

8.7 Contract Award

The local agency administering a project has **30 days** after bid opening to deliver a written Notice of Intent to Award to the lowest responsive, responsible bidder. The bidder must meet certain conditions before the contract may be awarded – including a requirement for the prime contractor to perform at least **30 percent** of the value of the contract with its own forces.

➔ Refer to Section 103.3 of MaineDOT's *Standard Specifications*, “*Post-Bid Qualification.*”

The local administrator must send the MaineDOT project manager a letter or email with the recommended bid award. The document should contain a summary of the bid review and a bid tabulation with the engineer's estimate and all bids with unit prices. MaineDOT's approval is required before the contract is awarded. (*See sample Communication 16, on page 8-7.*)

Remember: A contract cannot be awarded without MaineDOT's approval.

A contract generally must be executed within **14 days** after the apparent low bidder has met all conditions of award. After a contract is executed, copies of the award notice and signed contract must be sent to the MaineDOT project manager.

8.8 Rejection of Lowest Successful Bid

If the apparent successful bidder fails to fulfill the conditions of award within the time set out in the bid documents, the bidder forfeits the award. In such an event, the local agency overseeing a project has the following options, which should be considered in consultation with MaineDOT:

- Award the contract to the responsible bidder with the next lowest responsible bid; or
- Reject all bids and re-advertise the project.

➔ See Section 103.6 of the *Standard Specifications*, “*Failure to Fulfill Award Conditions.*”

CHECKLIST: ADVERTISE & AWARD

- Receive authorization to advertise from MaineDOT project manager.**
- Advertise the Notice to Contractors** (3-week minimum period).
 - Advertising in regional or statewide newspaper is traditional practice.
 - Notice can be posted to municipal website and MaineDOT website.
 - Notice must have date and location of the opening of sealed bids.
 - Basis of Award must be clearly defined, so low bidder is apparent after bids are opened.
- Determine contractor qualifications:**
 - For contracts of \$300,000 or more, low bidder must be pre-qualified by MaineDOT.
 - For contracts of less than \$300,000, low bidder must demonstrate successful completion of projects with a comparable size and scope.
- Bidders must submit written questions using the Request for Information (RFI) form.**
 - The same answer must be distributed to all bidders in writing, with the question repeated.
- Issue addendum, if documents are modified or if answering a Request for Information.**
 - If there is not enough time for bidders to make changes, then delay the opening.
- Open and publicly read aloud all bids at the designated time.**
 - Prepare bid tabulation sheet.
 - Check submitted bids for tabulation errors.
 - Determine the lowest responsive bid.
- Review all bids for bid defects**
 - Go by the curable/non-curable language in MaineDOT Standard Specification 102.11.
 - Verify that contractors are licensed as legally required by the State of Maine.
- Determine the apparent successful bidder.**
 - Return bid securities to everyone except for the two lowest bidders.
 - Notify the second bidder that securities will be held until contract execution.
- Send award recommendation to MaineDOT project manager (Communication 16).**
 - Tabulation of bids;
 - Engineer's estimate; and
 - Completed Contractor DBE Utilization Form (federally funded projects).
- Receive MaineDOT approval in writing of recommended award.**
- Award contract**, in accordance with Section 103 of MaineDOT's Standard Specifications:
 - Send Notice of Intent to Award to apparent successful bidder.
 - If contract exceeds \$125,000, bidder has 14 days to deliver required bonds.
 - Bidder also must provide certificate of insurance, which applies to all projects.
 - Sign contract.
 - Notify all unsuccessful bidders of such.
- Send copy of signed contract to MaineDOT project manager.**
 - Return bid securities to first and second bidders.

Note:

An electronic version is found under the category “Construction” on the MaineDOT Local Project Administration site: <https://www.maine.gov/mdot/lpa/lpadocuments/>

[DATE]

[NAME], Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Request to Award Construction Contract, Federal Project
MaineDOT WIN:

Dear [NAME]:

Attached for your review are the bid tabulations, engineer’s estimate and completed Contractor DBE Utilization Form for [SCOPE, LOCATION] in the Municipality of [NAME]. [CONTRACTOR NAME] is the apparent successful bidder. We request authorization to award the project to that contractor.

In making this request, we acknowledge that we cannot send out the Notice of Intent to Award without written authorization from MaineDOT.

If you need additional information, please let me know.

Sincerely,

[NAME], Local Project Administrator

Enclosures:

1. Bid tabulations
2. Cost estimate

Note:

An electronic version is found under the category “Construction Contract Award” on the MaineDOT Local Project Administration site: <https://www.maine.gov/mdot/lpa/lpadocuments/>

[DATE]

[Firm name]

[Firm address]

Subject: NOTICE OF INTENT TO AWARD

Project: [Insert project location]

WIN: [Insert WIN]

Description: [Insert description]

Your company is the apparent successful bidder for the subject project. Upon receipt of your properly executed certificate of insurance, payment bond [use if contract >\$125,000], performance bond [use if contract >\$125,000], two signed Contract, Agreement, Offer, & Award Forms, a copy of this letter and projected payment schedule, we will sign the agreement, and you will have a written contract.

We will sign both originals provided with your submission and send one original agreement to you via certified mail. We will be in contact with you concerning a notice to proceed with the work.

Contract Amount: _____

If you have any questions on contract procedures, please feel free to contact me at [phone].

If federal money, include this statement:

Note that the prime contractor and subcontractors on Federal contracts must have accounts set up with Elation Systems for payroll processing. If you do not already have an account, please register for one, at your earliest convenience, using the information in Special Provision, Section 104.

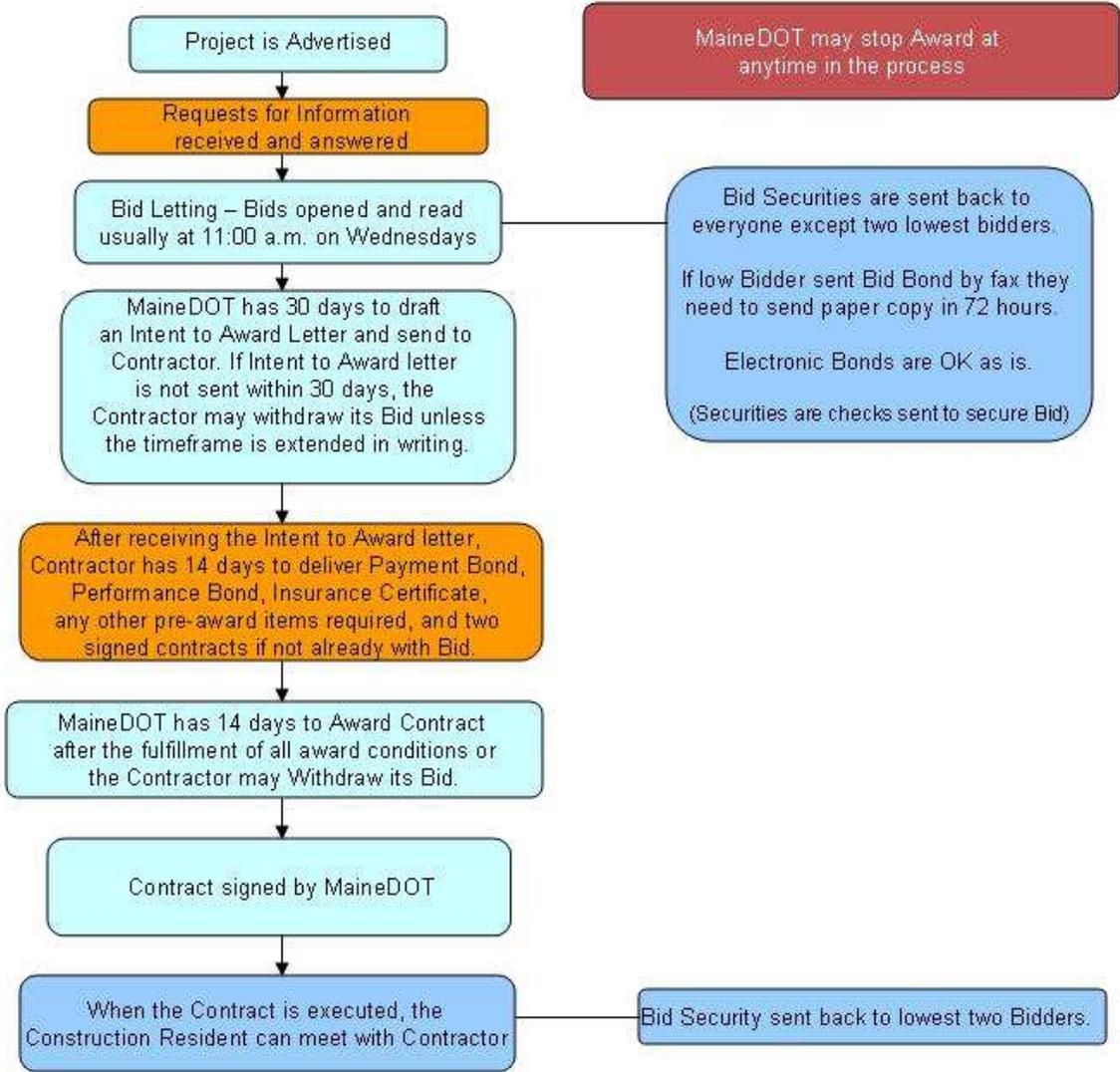
Sincerely,

MUNICIPALITY OF [INSERT NAME]

By _____
[Name, Title]
Local Project Administrator

Maine Department of Transportation **Bid Award Process**

Section 103



Local Project Administration Manual & Resource Guide

Force Account Work



MaineDOT

Integrity - Competence - Service

Revised 2017

Force Account Work

Most of the time, construction work on federally funded projects is done by contractors hired through competitive bidding. Occasionally, however, a larger municipality or other agency may consider it advantageous to build a project with its own personnel using a “force account” process. If so, the municipality or agency managing a project must justify why using force-account labor would serve the public interest. A written request, which should be submitted to the MaineDOT project manager for a particular project, must include:

- A description of the nature of the work;
- A detailed description of how the work is to be done;
- A cost breakdown for materials, equipment, labor and overhead;
- An explanation of why doing the work by force account would be more cost-effective than competitive bidding.



MaineDOT may review force-account requests in consultation with the Federal Highway Administration. Generally, a municipality or other local agency must demonstrate that its personnel can perform the work to the standard to which a private contractor would be held. The agency also must show, among other things, that:

- Its employees can perform the work in the range of **15 percent less** than the official cost estimate for competitive bidding – based on estimated quantities and prices for materials, labor and equipment;
- Agency personnel have successfully completed other projects of similar size and scope;
- The agency has the personnel and equipment to do the work to the same standard of quality that is required for a competitively bid contract;
- The agency can meet labor-compliance requirements and other federal mandates in Form FHWA-1273, “Required Contract Provisions for Federal-aid Construction Projects”; and
- Authorizing an agency to perform work by force account will not hinder MaineDOT’s ability to achieve its overall Disadvantaged Business Enterprise (DBE) performance goal.

State Projects

Requests to use “in-kind” work on projects with no federal money must have the approval of the manager of MaineDOT’s Multimodal Program. In making a request, a city, town or other agency must explain why it wants to forego competitive bidding and must document the following:

- Estimated number of hours of work, with labor rates; and
- Estimated quantities and prices for materials to be used on a project.

Federal Guidance – Force Account Labor

“Force Account” refers to the direct performance of highway and highway-related construction work by a public agency (State, local, or Tribal), a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by the agency and used under its direct control [23 CFR part 635.203(c)].

In general, federal-aid highway construction projects must be awarded based on the lowest responsive, responsible bidder [23 U.S.C. 112] unless the state transportation agency can demonstrate to the satisfaction of the Federal Highway Administration (FHWA) that some other method is more cost-effective or that an emergency exists. In this case, “cost effective” is defined as the efficient use of labor, equipment, materials and supplies to assure the lowest overall cost [23 CFR part 635.203(e)].

In accordance with the stewardship/oversight agreement between MaineDOT and the Maine Division of the FHWA, MaineDOT has established a self-certifying process to meet the requirements for a finding of cost effectiveness as described in 23 CFR part 635.204(c). Construction work proposed by a public agency on a federal-aid project meeting these requirements is considered to be cost effective.

The purpose of this document is to provide an overview for using the **Force Account Construction Method – Finding in the Public Interest Form (hereafter “the Form.”)** The MaineDOT Project Manager is responsible for preparing and submitting the form and attaching all required supporting documentation. The corresponding MaineDOT Program Manager (or in MaineDOT M&O Regions, the Region Manager) must provide review/approval sign-off. All Force Account requests shall be maintained at a central secure repository site, available for review, including by FHWA.

When the force account construction method is used, it must be justified by a cost effectiveness determination that shows a significant savings over estimated contract prices. The requestor shall document this savings by providing Force Account costs on the attached ‘**Force Account Estimate Worksheet**’ that must be submitted with the Form. This should be compared with the detailed cost estimate of work by the competitive bid method of construction. The estimates for both shall be all inclusive so a fair and equal comparison can be made.

The public agency estimate for the force account construction method must include all costs associated with the work and not just the work that will be billed to the project. These costs include non-reimbursable costs that are inherent to the work including labor, overhead, equipment, materials, and supplies. MaineDOT will provide a standard overhead figure to be used with these estimates – it currently is 110%. *Municipalities and other local public agencies either shall provide their audited overhead reports or use the standard overhead figure of 110% of labor costs.*

- If the public agency has no set rates for its equipment, it may use current Blue Book rates.
- The public agency obtains all required clearances and permits as applicable.

- Project activity should only proceed when:
 - a. All documentation justifying the force account construction method is complete.
 - b. Plans are complete and approved by the project manager.
 - c. Obligation authority and funding are cleared by the project manager.
- Project expenditures should follow established MaineDOT guidelines

The Force Account method of construction may be used in the following circumstances: A) Emergency Repair Work; B) Railroad or Utility Work; C) When there is Lack of Bids or Unreasonable Bids; or D) Work by a Public Agency. The eligibility and documentation requirements for the latter types of projects are indicated in the YES sections of Part D of the attached form.

A) Emergency Repair Work

Necessary to protect public health and safety, or a major element or segment of a highway or roadway has failed, and competitive bidding is impossible or impractical. Competitive bidding may be precluded because immediate action is necessary to minimize the extent of the damage, to protect remaining facilities, or to restore essential travel as provided in 23CFR 635.204(b).

B) Railroad or Utility Work

The inherent nature of the operation makes it cost effective to perform minor adjustments of railroad and utility facilities (as determined by the railroad or utility) by the force account construction method, while the majority of work is performed by competitive bid. See 23CFR 635.205(b).

C) Lack of Bids/Unreasonable bids or Work by a Public Agency

1. It can be demonstrated that it is cost-effective to do the work by the Force Account method and the scope of work is within the approved Force Account criteria, or that there is a lack of bids or the bids received are unreasonable. The Force Account value must be in the range of 15% less than estimated competitive bid method of construction. *If the cost savings is less than 10%, concurrence must be obtained from the appropriate MaineDOT Bureau Director and the FHWA.*
2. It is cost-effective to perform work that is incidental to the main purpose of the project by the Force Account construction method. The majority of work is still accomplished by competitive bidding.
3. Appropriate documentation shall be provided to substantiate the reason for work done by MaineDOT or municipal forces.
4. Force Account activity shall not be considered for routine maintenance work.

MAINE DEPARTMENT OF TRANSPORTATION FORCE ACCOUNT METHOD – FINDING IN THE PUBLIC INTEREST	WIN : Cost:
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Today's Date:	Planned Project Begin
----------------------	------------------------------

Location:

The term “force account construction method” refers to construction work a public agency performs on federally funded projects using its own forces. Specifically, it means the direct performance of highway construction work by the Department, local entity, county, railroad, public utility company, or other agency by use of labor, equipment, materials, and supplies furnished by the agency and used under its contract terms (23 CFR part 635.203(c)).

Scope of Work:

I do / do not recommend that _____ be allowed to construct the work by the force account construction method. The work does / does not meet one of the following conditions justifying performance of the work by the force account construction method.

Check type of work below that applies (one only):

<input type="checkbox"/> A. Emergency Repair Work	Y	N	Documentation
1. Work meets definition in 23 CFR 668.103	<input type="checkbox"/>	<input type="checkbox"/>	
2. Materials meet requirements or waiver issued	<input type="checkbox"/>	<input type="checkbox"/>	
3. Attach backup documentation	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> B. Railroad or Utility Work			
1. Work Scope meets Definition of “Adjustment” per Subpart B	<input type="checkbox"/>	<input type="checkbox"/>	
2. Organization is qualified to perform work	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> C. Lack of Bids or Unreasonable Bids			
1. Is there lack of bids or unreasonable bids?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is Force Account method more cost effective than bidding, as defined in 23 CFR 635.203(e)?	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> D. Work by Public Agency (Municipal Forces)	Y	N	Documentation

1. Does scope meet definition of “construction” (23 USC, 101)?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is the project located within the highway right of way?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does agency have cost estimates for materials, labor and equipment, including overhead rates and indirect costs?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does agency have experience, resources and ability to perform the work to same quality as private contractor?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does agency have ability to comply with appropriate design, construction, and materials quality standards?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Does agency own (or currently lease) most equipment needed to perform the work?	<input type="checkbox"/>	<input type="checkbox"/>	
7. Were Force Account and competitive bid cost estimates based on the same project completion timeline?	<input type="checkbox"/>	<input type="checkbox"/>	
8. Has it been determined that proposed work cannot be competitively bid with other Federal-aid projects?	<input type="checkbox"/>	<input type="checkbox"/>	
9. Has it been determined that no materials will be purchased sole-source in excess of \$5,000?	<input type="checkbox"/>	<input type="checkbox"/>	
10. Are there assurances that force-account work will not hinder the State’s ability to meet its DBE utilization goal?	<input type="checkbox"/>	<input type="checkbox"/>	
11. Are there assurances that the organization will comply with FHWA-1273?	<input type="checkbox"/>	<input type="checkbox"/>	

E. Additional Project Information

1. Public Agency paying part of cost?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Agreement provided if work done by other(non-state forces)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Is any portion of work being subcontracted?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Will agency perform all labor besides specialty work? (paving)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Is more than 50% of the work sub-contracted?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Is this a full FHWA oversight project?	<input type="checkbox"/>	<input type="checkbox"/>	

I hereby certify that _____ provided all the necessary documentation relating to Items A through E above in support of the request to administer and/or perform the work on the above referenced project by the force account construction method.

NOTE:
Documentation that shall further support Items A through E should be retained as part of the project files.

Approvals:

MaineDOT Program Manager:

FHWA Division Administrator:

Local Project Administration Manual & Resource Guide

Civil Rights & the ADA



MaineDOT

Integrity - Competence - Service

Revised 2019

Civil Rights & the ADA

Municipalities and non-profit organizations administering federally funded transportation projects must comply with a variety of federal civil rights laws, rules, regulations and presidential executive orders designed to prevent and eliminate discrimination.

Chapter 10 of this Manual provides an overview of the Americans with Disabilities Act (ADA) and a variety of other civil rights requirements and programs that local agencies are likely to encounter as they develop federal-aid projects. The topics listed below will be covered.

- Title VI of the Civil Rights Act of 1964 (page 10-1);
- Americans with Disabilities Act (page 10-2);
- Limited English Proficiency (page 10-3);
- Disadvantaged Business Enterprises (page 10-4);
- Equal Employment Opportunity (page 10-4);
- Appendix 10A: ADA Guidance for Local Agencies (page 10-5):
 - Minimum ADA Requirements for Pedestrian Facilities (page 10-6); and
 - MaineDOT ADA Compliance Policy (page 10-9).



MaineDOT's Civil Rights Office oversees compliance with civil rights requirements:
www.maine.gov/mdot/civilrights/

10.1 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color or national origin in any program or activity receiving federal assistance. Subsequent amendments have expanded Title VI to afford federal legal protections based on sex, age and disability, as well.

Programs and activities funded through the U.S. Department of Transportation must comply with Title VI requirements. This applies to local agencies that receive money through MaineDOT from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), which must have policies and procedures in place that address Title VI requirements.

Organizations comply with Title VI in transportation programs primarily by:

- Avoiding, minimizing or mitigating disproportionately high health and environmental impacts to minority and low-income populations; and
- Ensuring the full and fair participation in the transportation decision-making process by all potentially affected groups, including those with limited English proficiency.

Local agencies undertaking locally administered projects with federal funds must have a designated Title VI coordinator who is responsible for Title VI compliance. Additionally, the top administrative official in these organizations must sign a set of Title VI Assurances that must be inserted into all contracts with outside consultants and contractors, along with the following:

- Appendix A and Appendix E to the Title VI Assurances; and
- Form FHWA-1273, “Required Contract Provisions for Federal-aid Contracts.”

➡ A template for the Title VI Assurances is available online:

www.maine.gov/mdot/lpa/docs/lpadocs/2018/TitleVIAssurancesOct2018.docx

10.2 Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) of 1990 and the Rehabilitation Act of 1973 prohibit public entities and organizations that receive public funds from discriminating against people with disabilities in all aspects of life, including transportation, public services and public programs. In transportation, this applies to the planning, design, construction, maintenance, and operation of transportation systems.

In the context of locally administered transportation projects, the law requires new, reconstructed or otherwise “altered” transportation facilities to be made ADA compliant to the maximum extent feasible, regardless of the cost or type of funding. An “alteration” is a change to a public right-of-way that affects or could affect access, circulation, or use.

These definitions may change how local agencies upgrade accessibility to pedestrian facilities. They apply to ALL government agencies regardless of funding. Any of the following activities could be an alternation:

- New construction;
- Road rehabilitation;
- Road reconstruction;
- Mill-and-fill / mill and overlay;
- Addition of new layer of asphalt (light capital paving);
- Cape seals
- Hot-in-place recycling; and
- Microsurfacing / thin-lift overlay.

ADA rules require projects that alter the usability of a roadway to improve pedestrian access to existing facilities to the **maximum extent feasible**. Where pedestrian facilities are present, ADA compliance of curb ramp width, slope and detectable warnings will be necessary for certain treatments; this may also require pedestrian signal upgrades.

➡ ADA guidance – including minimum requirements for pedestrian facilities and MaineDOT’s ADA Compliance Policy – is found in Appendix 10A, starting on **page 10-5** of this chapter.

10.3 Limited English Proficiency

Organizations administering federally funded projects must take reasonable steps to make sure that people with Limited English Proficiency (LEP) have meaningful access to the programs, services and information they provide.

People whose primary language is not English and who have limited ability to read, speak, write or understand English can be LEP. Organizations may need to provide materials in other languages or to translate at meetings to assist LEP individuals.



LEP requirements originate from Presidential Executive Order (EO) 13166, “Improving Access to Services for Persons with Limited English Proficiency,” containing two major initiatives:

- The first initiative is designed to improve enforcement and implementation of Title VI, which prohibits discriminating based on national origin by, among other things, failing to provide meaningful access to LEP individuals.
- The second requires the Federal Government and agencies receiving federal funds – including MaineDOT and local projects sponsors – to provide materials in other languages or to translate at meetings when LEP individuals are present.

Local agencies must provide meeting announcements and outreach materials in languages understood by an affected LEP population, if applicable. Such announcements should state that accommodations, to the extent possible, will be provided for individuals with disabilities and populations with LEP. If so requested, local agencies must provide spoken and sign-language interpreters and alternately formatted materials at no cost.

More information is available on the website of MaineDOT Civil Rights Office:
www.maine.gov/mdot/civilrights/title-vi/

10.4 Disadvantaged Business Enterprises (DBE)

Disadvantaged Business Enterprise (DBE) is a federal program to help women and minority small-business owners promote their businesses and services within the contracting community. MaineDOT sets an annual goal, approved on a three-year basis, for DBE participation in federally funded projects. The current goal – through September 30, 2021 – is **2.4 percent**.

DBE encourages use of businesses owned by women and minorities on federally funded projects. Maine seeks to meet DBE goal requirements through *race-neutral* means; DBE participation typically is not required on specific projects.

Maine calculates the attainable DBE usage on specific projects and encourages contractors and sub-recipients of federal funds to do their best to ensure that DBE firms are sought out and hired. MaineDOT continually reviews DBE usage. If it becomes apparent that Maine’s DBE goal will not be met, MaineDOT may enforce DBE goals on certain projects.

❑ 10.4.1: DBE Use on Federal-aid Contracts

A request for proposals (RFP) for consultant services on a federal-aid contract must state that certified DBE firms are encouraged to submit proposals. The RFP also must require non-DBE consultants to ensure that DBEs have opportunity to participate in any contract.

On federal-aid construction projects, MaineDOT encourages non-DBE contractors to use DBE firms as sub-contractors as much as possible.

- The prime consultant and construction contractor on a federal-aid project must complete a DBE Utilization Form, available online: <https://www.maine.gov/mdot/civilrights/dbe/>

Completed DBE Utilization Forms must be kept in the project files, along with subcontracts with DBE firms, for review during site visits by state and federal personnel.

❑ 10.4.2: Commercially Useful Function

During construction on a federal-aid project, the construction resident must verify that a DBE firm named to work on a project is performing the services listed in its subcontract with its own equipment and workers. Such services are known as the “Commercially Useful Function” (CUF) of the firm. The construction resident must verify that the employees of the firm are listed on the DBE company’s payrolls and not on another firm’s payroll.

During a project, the construction resident must perform an on-site CUF review when a DBE firm initially shows up and during the peak period of the DBE’s work. A review also must be performed when a recognized DBE firm is working on the project but not listed on the contractor’s DBE Utilization Form.

- Commercially Useful Function form is available from the MaineDOT Civil Rights Office: <https://www.maine.gov/mdot/civilrights/dbe/>

10.5 Equal Employment Opportunity (EEO)

Equal Employment Opportunity (EEO) is an effort to ensure that sub-recipients of federal funds, contractors and sub-contractors comply with federal laws and regulations that prohibit government contractors from discriminating in employment. EEO also requires that the recipients of federal funds and their contracted agents understand their contractual obligations and undertake affirmative action to ensure equal employment opportunity in their workforces.

Local agencies are required to include EEO provisions in their federal-aid construction contracts. These provisions are contained in Form FHWA-1273, “Required Contract Provisions for Federal-aid Construction Contracts,” which must be incorporated into the bid documents for every federal-aid project. (*For more information, see Chapter 7, “Final PS&E Package.”*)

- Form FHWA-1273 can be found at the link below under the category of Bid Documents: www.maine.gov/mdot/lpa/lpadocuments/

Appendix 10A:

ADA Guidance for Local Agencies

- ➔ ADA Resources for local agencies are found on the website of the MaineDOT Civil Rights Office: www.maine.gov/mdot/civilrights/ada/resources-engineers/



Maine Department of Transportation

Highway Program

Design Guidance

Title: Minimum ADA Requirements for Pedestrian Facilities	Issue Date: November 1, 2017
Discipline: General Engineering	Revised Date: May 21, 2019
Originator: Highway Program	
Approved By: Bradford Foley, P.E.	

Background:

The MaineDOT updated ADA Title II Transition Plan specifies what ADA standards MaineDOT has adopted. The MaineDOT ADA Compliance Policy specifies what improvements will be required, based on project scope. This document is intended to provide guidance on what makes each individual element of a pedestrian facility ADA compliant. It should be the basis for determining if an existing pedestrian facility is ADA compliant and for designing and constructing new or improved pedestrian facilities.

Guidance:

Existing Pedestrian Facilities

If an existing pedestrian facility meets the requirements listed in [Table 1](#), it is considered an ADA compliant facility. Such facilities do not need to be improved if it is beyond the planned scope of work to do so. Consideration should be given to the overall system of pedestrian facilities on the project to make sure there are no non-ADA safety issues that need to be addressed. Examples of such non-ADA safety issues include cross walk locations, refuge areas, and visibility.

New or Reconstructed Pedestrian Facilities

New pedestrian facilities, or existing facilities that must be reconstructed, shall be designed and built to meet the minimum requirements listed in [Table 1](#).

More detailed guidance for the design of pedestrian curb ramps can be found in the [Standard Details](#).

Exceptions

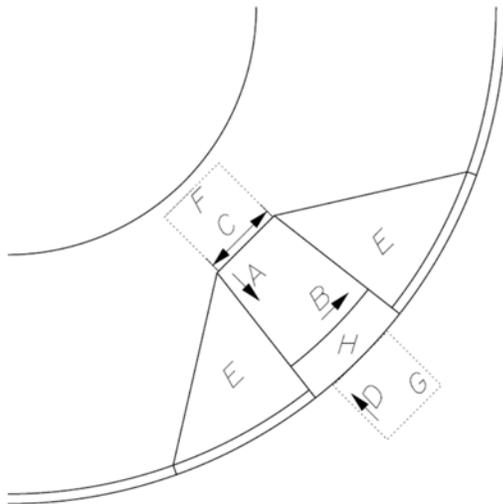
The ADA Compliance Policy allows exceptions to be made when it is “technically infeasible” or “physically impractical” to meet all current ADA requirements. In some cases, there may be physical constraints that are beyond project scope to modify or remove that make it infeasible to meet ADA requirements. Examples of these constraints include, but are not limited to, underground and overhead utility structures, bridge structures, building entrances at back of sidewalk, retaining walls, and established landscaping such as large trees. In such cases, the facility must be upgraded to the maximum extent possible. Technical infeasibility or physical impracticality may not be determined solely based on cost.

The ADA Compliance Policy requires that locations where full compliance with current ADA standards is not feasible be documented according to the following established procedure:

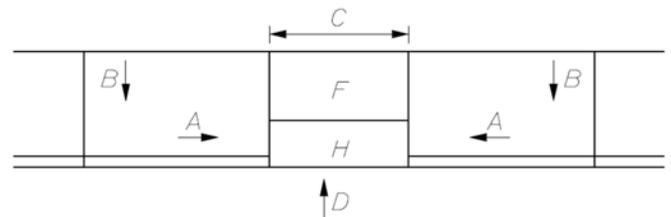
- If an element does not meet the minimum requirements for pedestrian facilities listed in [Table 1](#), include discussion in the ADA compliance section of the Preliminary Design Report and submit an [ADA Technical Infeasibility Form](#) for review to the appropriate Program Manager or Region Manager and the Title II ADA Coordinator. Approval may be granted at the Program or Region level or forwarded to the Engineering Council for further review.

Minimum Requirements for Pedestrian Facilities		
SIDEWALKS		
Cross Slope		Max. 2% (1:50)
Clear Width		5 feet, excluding curb (standard) 4 feet, excluding curb (minimum) 3 feet allowable at a single point <i>Widths less than 5 feet require a 5 foot by 5 foot passing space every 200 feet.</i>
CURB RAMPS		
Running Slope	A	Max. 8.33% (1:12)
Cross Slope	B	Max. 2% (1:50) <i>Ramp cross slope at street crossings without stop or signal control may match roadway profile.</i>
Clear Width	C	Min. 5 feet <i>For existing ramps only, ramp width may remain 4 feet.</i>
Counter Slope	D	Max. 5% (1:20) <i>Adjacent surface must be flush with the ramp.</i>
Flared Sides	E	Max. 10% (1:10)
Turning Space	F	4 feet by 4 feet <i>Maximum slope of 2% in any direction. May include Detectable Warnings.</i>
Clear Space	G	4 feet by 4 feet <i>Located at the bottom of the ramp outside active travel lanes.</i>
Detectable Warnings	H	<i>Required at traffic controlled intersections and mid-block crossings, full ramp width.</i>

Table 1. Minimum Requirements for Pedestrian Facilities



Perpendicular Ramp



Parallel Ramp

MaineDOT ADA Compliance Policy for Construction and Maintenance

- Revised August 11, 2016 -

□ Overview

MaineDOT is responsible for implementing the requirements of Section 504 of the Rehabilitation Act and Title II of the Americans with Disabilities Act (ADA), and all applicable enforcement regulations, on its transportation facilities. This policy identifies actions necessary to comply with ADA requirements as work is performed on the highway and bridge system.

***NOTE:** This policy applies to locally administered projects with federal or state funding. MaineDOT will expect municipalities and their design consultants to abide by the requirements.*

□ General

Newly constructed, reconstructed, or rehabilitated pedestrian facilities will fully meet current ADA accessibility standards. MaineDOT will maintain its design guides and Standard Details to ensure that all elements of current ADA compliance are incorporated into roadway improvements as required by this policy.

□ Alterations and Maintenance

When walkways or other right-of-way elements intended to assist pedestrians are altered as part of a roadway improvement, those walkways and elements must be upgraded to meet current ADA standards. While many maintenance activities are not considered alterations and do not trigger requirements to perform ADA upgrades, most other work, including surface paving treatments and traffic signal replacements, do cause ADA improvements to be made. Table 1 below provides the minimum ADA upgrades required for a variety of work scopes.

□ Consideration beyond minimum requirements

In determining the extent to which ADA improvements must be performed within the limits of work, designers should consider the accessibility of existing pedestrian facilities in context with local pedestrian use and needs.

- Areas of heavy pedestrian use or the presence of hospitals, retirement centers, veterans facilities, schools, libraries and government buildings would give compelling reason to consider more extensive upgrades, particularly if there are barriers along the adjacent sidewalk. In these areas, municipalities and other local agencies should seek guidance about the extent of ADA improvements from MaineDOT project managers, in consultation with the Multimodal Program Manager and Office of Civil Rights.
- If multiple ADA modifications are being made to meet the minimum requirements, designers should consider upgrading all pedestrian facilities within the project limits rather than leaving a patchwork of compliant and non-compliant ADA elements.
- The extent of work for traditional improvement scopes should not be altered solely to avoid the requirements of this policy.

❑ Crosswalks and curb ramps

Any paving work affecting an existing crosswalk is considered an alteration that requires accessibility review and upgrades.

- When a crosswalk is altered, curb ramps must be installed or brought to current ADA standards where the crosswalk connects to a sidewalk or other pedestrian walkway.
- When a crosswalk is altered at an intersection, upgrades will be made at all corners, even if outside the project limits.
- Curb ramp upgrades will be made as required at driveway/crosswalk crossings when paving activities impact crossings.
- Current standards will be met for all required and applicable curb ramp elements including slopes, width, cross slope, landing area and detectable warnings.

❑ Pedestrian signal systems

When the accessibility of an existing pedestrian signal system is impacted by an alteration, such as improper button height or slopes at pedestrian poles, the pedestrian signal system must be upgraded to meet current ADA standards. The replacement of traffic signals and the relocation of pedestrian poles are also actions that require upgrade of the entire pedestrian signal system.

❑ Exceptions

Technically infeasible situations

If it is technically infeasible or physically impractical to meet all current ADA standards, the standards will be met to the maximum extent possible. Locations where full compliance is not feasible must be documented. If the non-compliant element cannot be improved enough to remove barriers, the municipality managing a locally administered project must consult with the MaineDOT Multimodal Program, which may contact the MaineDOT Civil Rights Office to determine the appropriate course of action.

Federal “Safe Harbor” provision

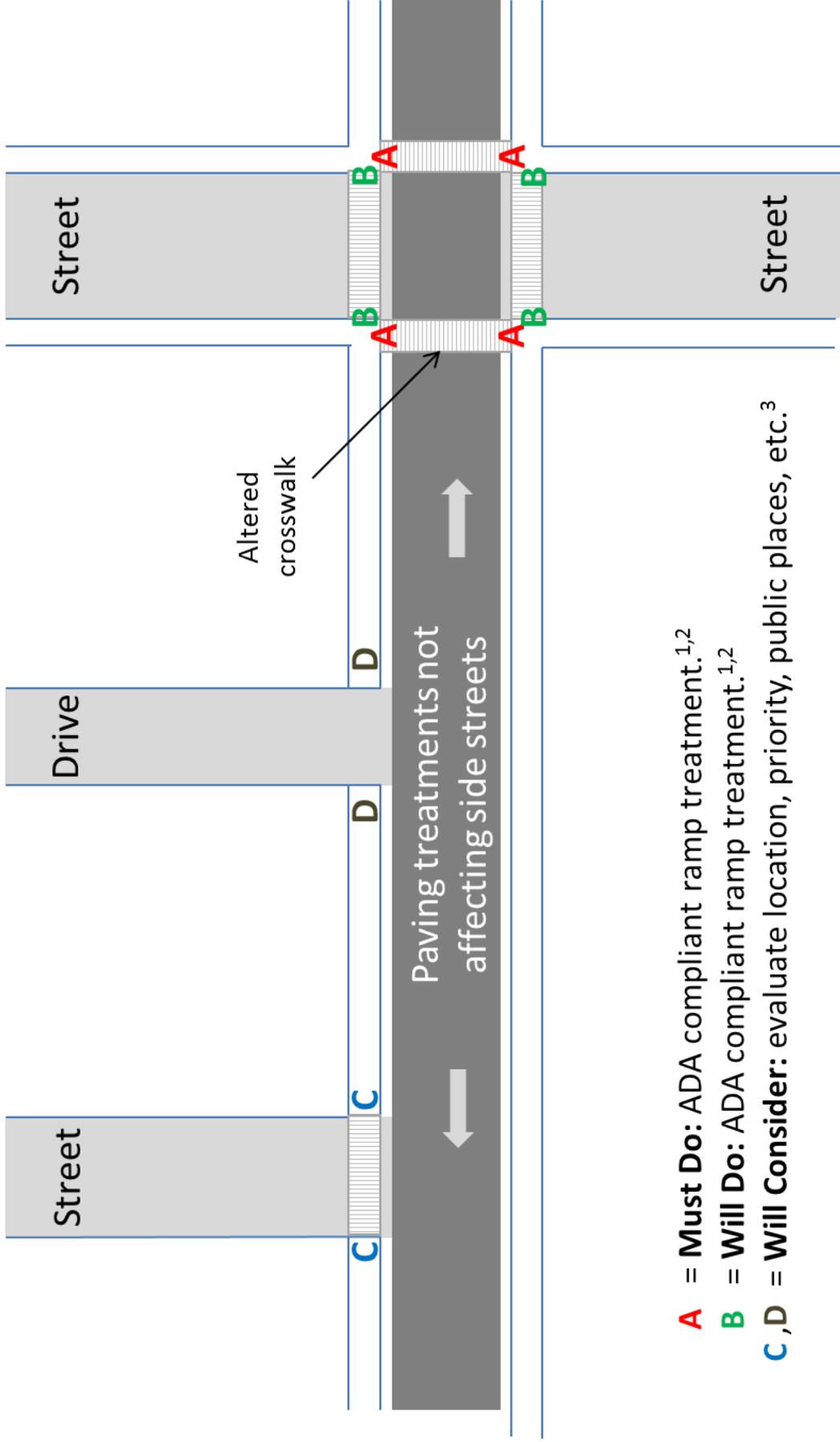
By federal regulation, existing accessibility elements constructed or altered before March 15, 2012 that comply with 1991 ADA Accessibility Guidelines do not have to be modified to comply with the 2010 standards. If this exception is utilized and detectable warnings are not present, detectable warnings will be added at locations determined appropriate as described in the Alterations and Maintenance section above.

❑ Responsibilities

For locally administered capital improvements, the municipality managing a project, in consultation with its contracted design consultant if applicable, is responsible for reviewing existing pedestrian and accessibility elements within the limits of a project and determining what ADA improvements must be made in accordance with this policy.

TABLE 1: REQUIRED ADA ELEMENTS BY SCOPE OF WORK

TYPE OF WORK	ADA IMPROVEMENTS NEEDED?	MINIMUM IMPROVEMENTS
<ul style="list-style-type: none"> ▪ New Construction ▪ Reconstruction ▪ Rehabilitation 	YES	Pedestrian facilities must be constructed or upgraded to meet current ADA requirements within the project limits.
<p>Paving Treatments:</p> <ul style="list-style-type: none"> ▪ Mill and fill / Overlay ▪ Micro-surfacing ▪ Hot or Cold In-Place Recycling ▪ PMRAP ▪ Ultra-Thin Bonded Wearing Course ▪ Light Capital Paving 	YES	<ul style="list-style-type: none"> - Upgrade curb ramps where treatment crosses or impacts existing pedestrian elements or routes within project limits. - If a crosswalk is altered at an intersection, all corners must be upgraded even if outside project limits. - Upgrade pedestrian signals to current ADA standard if the improvement affects the accessibility of the system.
<p>Signal: New location that warrants pedestrian facilities</p>	YES	Install or upgrade intersection pedestrian facilities to meet current ADA standards, including curb ramps and pedestrian signal systems.
<p>Signal Replace in Kind</p>	YES	Upgrade intersection pedestrian facilities to meet current ADA standards, including curb ramps and pedestrian signal systems.
<p>Signal: Modification involving excavation or right-of-way that warrants pedestrian facilities.</p>	YES	Upgrade intersection pedestrian facilities to meet current ADA standards, including curb ramps and pedestrian signal systems.
<p>Lighting</p>	NO	
<p>Striping</p>	NO	
<p>Maintenance Activities: Chip Seals, Crack Filling and Sealing, Dowel Bar Retrofit, Fog Seals, Joint Crack Seals, Joint Repair, Pavement Patching, Scrub Sealing, Slurry Seals, Spot High-Friction Treatments, Surface Sealing.</p>	NO	Note: Some combinations of these may require ADA upgrades.

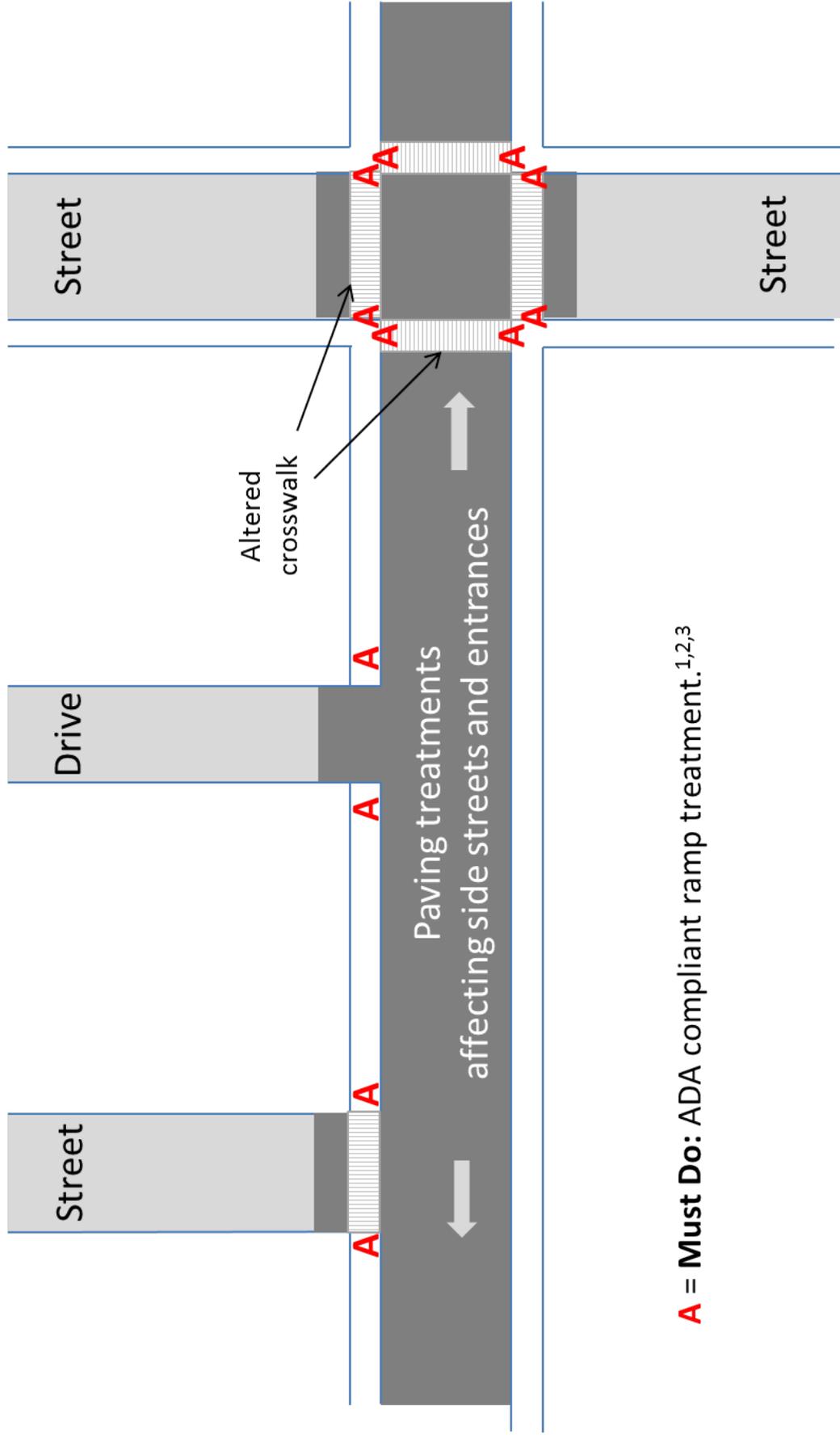


A = **Must Do**: ADA compliant ramp treatment.^{1,2}

B = **Will Do**: ADA compliant ramp treatment.^{1,2}

C, D = **Will Consider**: evaluate location, priority, public places, etc.³

1. Current ADA standards must be met unless existing ramps meet 1991 ADA Standards or 1991 UFAS.
2. Truncated domes will be installed at all modified ramps at roadway intersections, but not at drive crossings.
3. Consideration should be given to remove all physical barriers within the project limits along the roadway being improved and the adjacent sidewalks. Project guidance is available through the Highway Program Manager and the Director of the Civil Rights Office.



1. Current ADA standards must be met unless existing ramps meet 1991 ADA Standards or 1991 UFAS.
2. Truncated domes will be installed at all modified ramps at roadway intersections, but not at drive crossings.
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Local Project Administration Manual & Resource Guide

Construction Administration



MaineDOT

Integrity - Competence - Service

Revised, September 2019

Construction Administration

Construction of a project typically follows a contract award to the successful bidder. Once the contractor starts a job, the agency administering the project must document and inspect the work. MaineDOT determines the appropriate level of oversight in consultation with the local project administrator. Often, this can be a full-time responsibility.

Chapter 11 of this Manual provides guidance on oversight and inspection, as follows:

- Oversight responsibilities (page 11-1);
- Pre-construction meeting (page 11-2);
- Materials testing (page 11-3);
- Davis-Bacon wage rates (page 11-4);
- State of Maine wage rates - **NEW** (page 11-5);
- Electronic payrolls (page 11-6);
- Project bulletin board (page 11-6);
- Buy America requirements (page 11-7);
- Construction contract modifications (page 11-8);
- Final inspection and project closeout (page 11-9);
- As-built plans (page 11-10);
- Appendix 11A: Construction administration checklist (page 11-11); and
- Appendix 11B: Submittals to MaineDOT (page 11-15).



11.1 Responsibilities of Construction Resident

During construction, the agency administering a project must assign an employee or private consultant with appropriate technical qualifications to inspect and document the work. This “construction resident” must be on site for activities such as excavation, grading, drainage work, concrete placement, and paving to make sure that the contractor is performing in accordance with the project contract, plans, specifications, and applicable laws.

The construction resident must be on site as necessary to meet the expectations set out in the MaineDOT Project Record-Keeping Manual, included here as Chapter 12, “Construction Documentation.” The local administrator should check with MaineDOT’s project manager to determine the proper level of oversight. Often, this can be a **full-time** commitment.

Remember: During construction, the local administrator must stay current with what is happening on a project. A checklist covering the steps in construction administration is found in Appendix 11A, starting on page 11-11 of this chapter.

Major responsibilities of the construction resident consist of the following:

- Ensuring that the work is performed in accordance with the design plans, specifications and construction contract. Tasks include inspecting the work, documenting quantities of materials, and checking lines and grades.
- Preparing and managing all documentation – including the field book, final quantities book, and drainage book.
- Providing for testing of materials such as gravel, hot-mix asphalt and concrete – and rejecting all materials and work not in compliance with the plans and specifications.
- Coordinating contract modifications (change orders), requiring independent estimates of cost and an accounting of the associated time.



➔ **MaineDOT** must review and concur with contract modifications **before** they are signed, as explained later in section 11.9 of this chapter, “Contract Modifications.”

- Reviewing contractor payrolls in the online Elation system for compliance with federal wage requirements, as covered in section 11.4, “Federal Davis-Bacon Wages.”
- Monitoring the contractor’s traffic control plan to ensure safe travel in the work zone.
- Making sure the work complies with environmental commitments and permit requirements, including erosion-control provisions.
- Approving payments for satisfactory work.
- Checking labor compliance, including setup of the contractor’s bulletin board. A diagram is online: <https://www.maine.gov/mdot/civilrights/sfp/>

11.2 Pre-construction Meeting

One key event before work begins is the pre-construction meeting. This meeting – usually held with a pre-utility meeting – typically involves the local administrator, construction resident, general contractor, affected utilities and appropriate MaineDOT personnel, including the project manager. (*See Communication 17, on pages 11-16 and 11-17.*)

A pre-construction / pre-utility meeting should be held at least **one week** before the start of work. The meeting serves to go over the requirements of the contractor during the project, as well as to coordinate the schedule and frequency of progress meetings.

The local project administrator should prepare an agenda and invite participants. Afterward, the administrator should distribute minutes to attendees, utilities and other parties, including public-safety agencies if a project calls for detours or lane closures.

11.3 Materials Testing

Materials used in construction projects with federal and state funds must meet the specifications for those projects. Proper testing of gravel, pavement, concrete and other materials will help to ensure that those materials perform as intended and hold up over time.

After accepting the final plans, specifications and estimate (PS&E), MaineDOT will develop minimum materials testing requirements, which should be reviewed at the pre-construction meeting.



Typically, the local agency overseeing a project or a consultant acting as construction resident will use a sub-consultant to test materials, which must meet standards established by the American Association of State Highway and Transportation Officials (AASHTO). Additionally, MaineDOT may conduct independent-assurance sampling and testing.

❑ 11.3.1: Aggregates

Properly graded gravels and other materials known as “aggregates” should be dense enough to provide a stable foundation, with an optimal number of air spaces that allow proper drainage. Tests commonly will check density and “gradation,” or the relative amounts of well-draining base materials (gravel and sand) and poorly draining fine particles (silt and clay.)

Base gravels, for example, should have no more than 5 percent fine particles when compacted; gravels for sidewalks and trails should have no more than 7 percent fine particles.

❑ 11.3.2: Pavement

Pavement consists primarily of crushed stones of varied sizes with a binder of asphalt cement. To perform as intended, hot-mix asphalt must be placed at the right temperature and compacted properly. Common pavement tests consist of the following:

- **Density or compaction.** Core samples are taken to verify that compacted pavement has the proper density. If pavement is too dense, it may crack. If density is too low, ruts may develop. Air voids should range from 2 percent to 6 percent.
- **Temperature.** Hot-mix asphalt should be placed only when the mix is between 275 degrees and 325 degrees Fahrenheit.
- **Sieve analysis.** Material is run through sieves to measure the distribution of particle sizes and how the aggregates fit together.
- **Performance Graded Asphalt Binder** content is checked to ensure that the proper amount of asphalt cement is used in the mix, so that the pavement does not rut or ravel.



❑ 11.3.3: Other Materials

Tests also may be performed on other materials, such as the following:

- **Concrete**, which is tested for compressive strength, permeability and air content; and
- **Loam**, which has requirements for gradation, organics and pH levels.

11.4 Federal Davis-Bacon Wages

The Davis-Bacon Act requires construction workers on federally funded projects to be paid prevailing regional wage rates, as determined by the U.S. Department of Labor. If a project has no federal money, Davis-Bacon wage rates do not apply.

The contract book for a federally funded project must contain a Davis-Bacon wage decision based on county and type of work, which may be highway, heavy or building. This decision, commonly called a “general decision,” will contain work classifications and wage rates that the prime contractor and all subcontractors must follow. A Davis-Bacon wage decision must be part of the bid documents for a federally funded project; otherwise, the project cannot be advertised.

To obtain a Davis-Bacon wage decision, go to: <https://beta.sam.gov/search?index=wd>

The federal wage decision may omit some classifications and labor rates. If that happens, the prime contractor must request missing classifications and rates through the online Elation payroll system. After reviewing the contractor’s request, MaineDOT staff may give provisional approval to use a classification and rate, pending a decision from the federal Department of Labor.

Note: Under 29 CFR Part 541, Davis-Bacon minimum wages do not apply to business owners.

❑ 11.4.1: Payroll Verification

The construction resident on a federally funded project must ensure contractor compliance with Davis-Bacon. Typical responsibilities consist of the following:

- Reviewing the Davis-Bacon wage decision for missing classifications and rates;
- Ensuring that the prime contractor requests missing classifications and rates;
- Checking contractor certified payroll reports for completeness and accuracy;
- Reviewing contractor certified payroll reports for compliance issues;
- Conducting payroll interviews; and
- Ensuring that the duties performed and hours put in by workers covered by Davis-Bacon are consistent with what contractors are reporting in the Elation system.

❑ 11.4.2: Payroll Interviews

Every 90 days, the construction resident must interview **two** covered workers from the prime contractor and all subcontractors that were on site at least **five days** during that 90-day period. Interviews must be voluntary, confidential and in person on the job site. Standard Form 1445, “Labor Standards Interview,” must be signed by both parties.

The construction resident will compare information from the interviews against a contractor’s certified payroll report for a given period. The resident must address all discrepancies found.

➡ MaineDOT’s Civil Rights Office offers guidance: <https://www.maine.gov/mdot/civilrights/>

11.5 State of Maine Wage Rates

If a contracted public works project of \$50,000 or more has state funds, construction workers must be paid at least the prevailing minimum wage and benefit rates set by the Maine Department of Labor for the county and type of construction. This applies to state-funded projects led by municipalities, including those awarded through the Small Harbor Improvement Program (SHIP) and the Municipal Partnership Initiative (MPI).

Similarly, if a public works project with a contract of at least \$50,000 has federal and state funds, both Davis-Bacon federal rates and Maine Department of Labor rates must be included in the contract book. In such cases, the contractor must pay the higher of the two wage rates for each worker classification. This commonly applies to federal-aid projects that have state matching funds, in which cases special provision 104, “Wage Rates,” must be part of the contract books.

This new requirement resulted from a change in Maine law that took effect September 19, 2019. The definition of “public works” in the law – Title 26 MRSA, Chapter 15, Section 1304 – was amended to cover projects funded in whole or in part by state funds. Before, only those projects contracted directly by the State of Maine were included in the definition of public works.

Municipalities and other local agencies may request a wage rate determination from the Maine Department of Labor, as set out below:

Richard W. Stephens
Maine Department of Labor
Wage and Hour Division
45 State House Station
Augusta, ME 04333-0045
Phone: (207) 623-7906
Email: Richard.W.Stephens@maine.gov

➡ For forms and guidance, check with the Maine Department of Labor:
www.maine.gov/labor/labor_stats/publications/wagerateconst/index.html

❑ 11.5.1 Certified Payrolls on State-Funded Projects

The prime contractor and subcontractors on projects requiring Maine Department of Labor prevailing wage rates must prepare and submit certified payrolls to the cities, towns and other local agencies administering those projects. Each contractor’s submittal must include a signed “Statement of Compliance” that the payrolls are correct and complete, proving that each covered worker has been paid at least the proper prevailing wage rate for the work performed.

Contractors should use a standard certified payroll form from the Maine Department of Labor. The form enables the construction resident and other reviewers to determine that employees have received legally required wages and benefits.

➡ The certified payroll form is online:
www.maine.gov/labor/labor_stats/publications/wagerateconst/maine_certified_payroll_form.pdf

11.6 Electronic Payrolls

Contractors and subcontractors on federal-aid projects must submit certified payrolls electronically using the Elation System, which will enable the construction residents on those projects to check for Davis-Bacon compliance. Electronic payrolls also may be used for state wages if both federal and state rates are required.

Upon awarding a contract, the agency managing a project should email the information listed below to MaineDOT's Contracts Section, which will set up a project in the Elation system:

- Work Identification Number (WIN);
- Name and email of the construction resident;
- Name and address of the prime contractor;
- Amount of the contract award;
- Dates of advertise, bid opening and award;
- Construction start date;
- Contract completion date stipulated in the contract;
- Subcontractor information (legal name, tax ID, phone number, city/town, state), with the service provided and dollar amount of the subcontract;
- County in which the work will take place;
- Wage Rate General Decision and modification numbers, such as ME100010-Mod-0.

Contact at MaineDOT:
Angela Latno: 207-624-3519
angela.latno@maine.gov

The Elation Manual is online: <https://www.maine.gov/mdot/contractors/publications/>

11.7 Project Bulletin Board

By law, the prime contractor on a project must display a series of posters on a bulletin board at the job site informing employees of their rights. This bulletin board must be installed by the first day of construction activity and stay in place until project completion.

The bulletin board must be placed in an area of the job site that is readily accessible to employees and the public at all hours, seven days per week. The board is commonly displayed in a highly visible location, such as outside the field office used by the contractor or construction resident. It must be protected from stormy weather and maintained to stay readable for the duration of a project.



If a project has federal funding, *both* federal and state labor posters must be placed on the bulletin board. If a project has only state funds, only state posters are required.

➡ MaineDOT's Civil Rights Office has placed a checklist, diagram and poster packet online: <https://www.maine.gov/mdot/civilrights/sfp/>

11.8 Buy America Requirements

If a project has funding from the Federal Highway Administration (FHWA), steel and iron products installed permanently must be produced domestically. Failing to comply with the Buy America Act of 1982 – known as “Buy America” – will result in loss of federal funding.

Under Buy America, the manufacturing processes for products made of steel and iron, including the application of coatings, must occur in the United States. Raw materials such as iron ore and alloys, however, may originate from outside of the country.



Buy America, for example, commonly covers the following items:

- Guardrail, piles, steel culverts, structural and reinforcing steel, and the structural plates and steel supports for highway signs, luminaries and signals;
- Cast iron grates; and
- The application of coatings such as epoxy, galvanized and paint.

See section 105.11 of MaineDOT Standard Specifications - Other Federal Requirements: www.maine.gov/mdot/contractors/publications/standardspec/docs/2014/div100.pdf

☐ 11.8.1: Certifications

The prime contractor must provide mill certifications for steel and iron products and manufacturer certifications for product coatings. Additionally, the contractor must certify that all products subject to Buy America comply with the law. The construction resident must verify these certifications before permanent products subject to Buy America are installed.

☐ 11.8.2: Other Work on Federal-aid Contracts

Buy America applies to all work on federal-aid contracts – even if some work won’t require federal money. If utility work using local funds is added to a federal-aid contract, for example, Buy America in most cases applies to that work.

☐ 11.8.3: Exceptions

MaineDOT expects steel and iron items incorporated into federal-aid projects to comply with Buy America. If, however, a local agency during design believes that Buy America cannot be met – or if a contractor contends that certain steel or iron items subject to Buy America cannot be acquired – the MaineDOT project manager should be contacted immediately.

MaineDOT may determine that a minimal amount of foreign steel and iron is allowed. The total cost of such foreign steel and iron incorporated into a federal-aid project cannot exceed \$2,500 or one-tenth of one percent of the total contract amount, whichever is greater, in accordance with MaineDOT’s Standard Specifications and federal regulations.

☞ The expectation is that federal-aid projects be designed to comply with Buy America.

❑ 11.8.4: Buy America and Transit Projects

Buy America applies to mass transit projects funded by the Federal Transit Administration (FTA), which has requirements for contracts and purchases greater than \$150,000 covering:

- Iron, steel and manufactured products used in construction projects; and
- Mass transit vehicles, commonly called rolling stock.

As with FHWA projects, the FTA requires a contractor certification. If a project will have steel, iron or manufactured products covered by Buy America, each bidder must complete and submit an appropriate Buy America certification. Similarly, waiver requests must be submitted to the FTA, through MaineDOT, for consideration.

Note: FTA rules are found primarily in **49 CFR part 661**, “Buy America Requirements.”

❑ 11.8.5: Buy American Act of 1933

Although Buy America requirements will apply in most cases, local agencies should be aware of a second law favoring domestically produced goods in federal contracts. The Buy American Act of 1933 – which is different from Buy America – requires the U.S. Government to give preference to products made in the United States. Buy American commonly applies to building construction and airport projects with federal funds.

If you are unsure whether the Buy the America Act of 1982 or the Buy American Act of 1933 applies to a federally funded project, check with MaineDOT for specific requirements.

11.9 Contract Modifications

Occasionally, a contractor will be asked to do extra or unforeseen work. Such additional work always requires a change to the original contract and – if the work will be paid for with federal or state money – concurrence from MaineDOT.

Contract modifications, also known as change orders, must be drafted by the resident or local administrator – and NOT the contractor. If MaineDOT will be asked to participate financially in a modification, the MaineDOT project manager or construction manager must concur with the change before it is executed or any associated work begins. Otherwise, MaineDOT may deny reimbursement for work covered by such a modification.

Two pieces of information must accompany contract modifications submitted to MaineDOT, which should be made in the format of *Communication 18*, found on page 11-18:

- An independent estimate of the cost of the additional work; and
- A statement addressing the associated contract time. If there is no change, write **0 days**.

Modifications must set out what work will be done, why it is being added, how much it will cost, and how it will be paid for. They require the signatures of the contractor and either the local project administrator or a designated representative.

Construction contract modifications generally are needed for:

- Changes in specifications;
- Substitution of materials;
- Changes in testing requirements;
- Changes or extra work within the scope of the contract;
- Design changes beyond the scope of the contract;
- Adding payment or credit for incentives/disincentives to the contract terms.
- Changes resulting in an increase or decrease of 25 percent or more in “major” items, which are defined as those exceeding 10 percent of the original contract amount.
- Changes in deadline dates, completion dates or time extensions not covered elsewhere.

A contract modification form may be downloaded from the MaineDOT website:
www.maine.gov/mdot/lpa/docs/lpadocs/2018/ContractMod2018.doc

11.10 Inspection of Completed Project

Once construction is finished, the local administrator sets up a project walk-through with the construction resident, contractor and MaineDOT staff. (*Use Communication 19, on page 11-20.*) The parties meet on site to inspect the project for flaws, incomplete work and necessary changes.

Afterward, a “punch list” is developed of items to be addressed before the project will be accepted as complete. Once the local administrator determines that the contractor has addressed all punch-list items, the administrator issues a letter stating that the project has been accepted and completed, with the date given. If the local agency managing the project will have maintenance responsibilities, the project at this point is turned over to that organization.

11.11 Closeout

A project cannot be closed out until all issues are resolved and the final payment is made. After the walk through, documentation of the final quantities is sent to the contractor stating that the final quantities are included and indicating which documents are to be submitted. The notice to the contractor also identifies any issues that need to be settled before final payment can be made.

Once construction is determined to be complete, the local administrator sends the MaineDOT project manager a final invoice, with a certification that all quantities were documented for payment to the contractor. (*Use Communication 20, on page 11-21.*)

Remember: The local share of MaineDOT’s internal costs, if applicable, will be reconciled and deducted from the final reimbursement payment, as described previously in Chapter 1 of this Manual, “Administration & Finance.”

11.12 As-Built Plans

As-built plans are design plans that have been revised, after completion, to document a project as it was constructed. They show the changes to the original plans to ensure their use as a reference for future project design and maintenance efforts. As-built plans for projects on state highways should be submitted to MaineDOT as .pdf files within **90 days** of completion.

As-built plans consist of full-sized plans marked up either with a red medium felt-tip marker or a blue or black medium ballpoint pen. On each revised plan sheet, the reviser should write in the lower right corner “Revised As-Built” and initial; on all unchanged plan sheets, the reviser should write “As-Built” and initial. Finally, the reviser should sign the title sheet of the plans.

As-built plans should note changes to the following:

- Project length, showing revised beginning and end stations;
- Plan index;
- Typical cross-sections;
- Construction centerline as constructed;
- Geometrics;
- Superelevation showing revised cross-sections;
- Drainage, on plan sheets and Drainage Summary;
- Tree removals;
- Guardrail;
- Centerline profile grades;
- Entrance dimensions and their surface treatment;
- Fence locations;
- Utility locations, including conduit, foundations, junction boxes, lighting, signs;
- Structure elevations;
- Pile locations or type;
- Structural Steel or Precast members; and
- Structural details.



As-built plans also must note changes resulting from bid amendments, with the following:

- Year the project was completed;
- Permanent bench marks, monuments and survey markers;
- Year that any buildings were removed or “Removed by Others” with date; and
- Known ties to utilities.

Appendix 11A: Administrative Checklist

(Updated in 2019)



CHECKLIST: CONSTRUCTION ADMINISTRATION

- Obtain minimum materials testing requirements from MaineDOT project manager:**
 - PM sends plans, specifications and estimated quantities to technician Jean Tukey: 624-3543.

Pre-Construction / Pre-Utility / Pre-Pave Meeting

- Send notice of meeting and agenda (Communication 17) to the following, at a minimum:**
 - Contractor
 - Utilities
 - Construction resident
 - MaineDOT project manager and construction manager
- Meeting Held, and Minutes Distributed**
- Contractor Schedule of Work received**
- Quality Control (QC) Plan and Mix Designs received from Contractor**
 - Contractor must submit them at least 30 days before the work is scheduled to begin
 - Submit to MaineDOT construction manager for review and approval
- Contractor Traffic Control Plan:**
 - Submitted to MaineDOT Traffic Section (Dana Hanks)
 - *MaineDOT Approval Date:* _____
- Soil Erosion Water Pollution Control Plan approved by construction resident**

Electronic Payroll : Federally funded projects

- Send information to MaineDOT to set up project in the Elation payroll system**
 - MaineDOT contact is Angela Latno: (207) 624-3519 or Angela.Latno@maine.gov
 - Work Identification Number (WIN);
 - Name and email address for person who will review/approving payrolls;
 - Prime Contractor;
 - Award amount;
 - Subcontractors, with addresses, phone numbers, item numbers and subcontract amounts;
 - Dates for project advertise, bid opening, and contract award;
 - Construction start date and completion date stipulated in the contract;
 - County in which the work will take place; and
 - Wage rate General Decision number and dates of any modifications.

Construction Testing & Documentation

- Project Field Book created, with the following:**
 - Entries dated and initialed – noting weather, crew & equipment, hours worked, and activities
 - Field measurements taken
 - Drainage work measurements performed and computations by stationing, from outlet to inlet
 - Details of grade checks done (subgrade and/or fine-grading), with results from each day
 - Noteworthy events recorded (accidents, discussions with owners, debates with contractor)
- Pit authorizations completed**
- Waste area agreements completed**
- Project Bulletin Board erected:** <https://www.maine.gov/mdot/civilrights/sfp/>
 - Project signage monitored (condition must be noted weekly in a project field book)

- Set up materials testing files for:**
 - Aggregate
 - Concrete
 - Pavement
 - Other materials subject to testing
- Quality Assurance (QA):**
 - Municipality may hire consultant or use MaineDOT testing labs with approval.
 - Contact MaineDOT independent assurance supervisor in the Bangor office: 941-4545
 - Verify if pavement plant was inspected recently: Kevin.cummings@maine.gov
 - Notify MaineDOT of schedules for paving and concrete work to ensure that plant QC operations are monitored and scales checked at least twice in five days of production
- Subcontractor Approvals:** <https://www.maine.gov/mdot/contractors/publications/>
 - Municipality must approve subcontracts before a subcontractor can start work
 - Send copy of approved package to the MaineDOT project manager
 - *Project manager will arrange for the subcontractor to be added to the Elation system*
- Federal projects: Weekly certified payrolls received electronically from all contractors**
 - Certified payroll checked in “Elation” system for compliance with minimum wage rates
- Federal projects: Employees interviewed to verify Davis-Bacon wage rate compliance.**
 - Voluntary interviews held every 90 days with 2 covered workers from the following:
 - Prime contractor and all subcontractors on site at least 5 days during a 90-day period.
- Federal Projects: “Commercially Useful Function Form” sent to MaineDOT, if applicable**
- Federal Projects: “Buy America” (Special Provision 105)**
 - “Buy America” certifications must be received before steel and iron products can be installed
- Progress payments to contractor:**
 - Prepare estimate and review with contractor; or receive and check estimate from contractor
 - Once approved, process estimate and send payment to contractor
 - Once payment is made, send reimbursement request with backup to MaineDOT
- Final Quantity Book created**
 - Book set up by item numbers
 - Pages set up for original measurements (or computations from plan dimensions)
 - Pages set up with a total-to-date column
 - Entries and computations initialed and dated
 - After item is completed, compute final quantity

Contract Modifications

- Modifications to the construction contract are handled as follows:**
 - Prepare an independent cost estimate for the additional work
 - Note the time associated with the change. (If no change, note 0 additional days.)
 - Send draft modification to MaineDOT construction manager for review (**Communication 18**)
- Obtain MaineDOT’s concurrence with contract modification**
- Send the modification to the contractor for signature
- When contractor has signed, local project administrator signs and dates the modification
- Send copy of the executed modification to the contractor, with a copy to MaineDOT

Project Completion

- Final inspection by Municipality, MaineDOT and contractor (Communication 19)**
 - Inspection Date: _____
 - Final “punch list” of items completed on: _____
- Notice of completion sent to contractor with notification of any liquidated damages**
 - Copies sent to MaineDOT project manager and construction manager
- Quality Assurance (QA) Certification completed**
 - Testing file provided to municipality’s project administrator for project files.
- Final quantity book completed by construction resident**
- Federal projects: DBE Form completed by the contractor, signed by each DBE**
 - MaineDOT project manager will forward to MaineDOT’s Civil Rights Office
- Final estimate paid and retainage released**
- As-built plans completed and sent to MaineDOT project manager (if applicable)**
- Final billing sent to MaineDOT project manager (Communication 20)**
- MaineDOT project manager completes a project evaluation**
 - Local administrator reviews, signs and returns to project manager
 - Project manager files the completed evaluation in Tedocs electronic filing system

Note: By regulation, records must be kept for **3 years** from completion for federally funded projects.

Appendix 11B:

Submittals to MaineDOT

- ❑ To obtain electronic documents, go to the section labeled “Letters to MaineDOT” on the LPA Documents web page: <https://www.maine.gov/mdot/lpa/lpadocuments/>

[Date]

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-Construction Meeting
MaineDOT WIN_____

Dear _____:

Your attendance is requested at the pre-construction meeting for **[insert project scope]** in the Municipality of _____ on **[insert meeting date/time]**. I have attached an agenda for your convenience.

If you need additional information, please let me know.

Sincerely,

Local Project Administrator

Cc: [Insert Name], Construction Manager, MaineDOT Multimodal Program

**AGENDA ITEMS FOR PRE-CONSTRUCTION MEETING
(Federally Funded Project)**

1. Introductions
2. Review Scope of Project
 - a. Acknowledge Amendments
 - b. Completion Date
 - c. Liquidated Damages
3. Permits Obtained (if required)
4. Construction Safety
 - a. Primary consideration during construction
 - b. Emergency contact list including 24 hour contacts
 - c. Contractor safety plan to be provided
 - d. Traffic Control Plan (TCP) must be reviewed and approved by Maine DOT
5. Schedule for the completion of work to be provided
 - a. Are there utility issues?
 - b. Update schedule as required
 - c. Daily construction activities to be recorded
 - d. Town must pay contractor first, then request reimbursement on a monthly basis
6. Labor Requirements
 - a. Davis-Bacon wage rates apply – if project has federal money
 - b. Certified payrolls with classifications to be submitted & reviewed: Elations
 - c. Payroll labor interviews
 - d. DBE participation & CUF form
7. Construction Control
 - a. Minimum Testing Requirements
 - b. Subcontract Approval (*FHWA-1273 must be inserted in all subcontracts*)
 - c. Measurement & documentation of materials used for payment purposes
 - d. Engineering oversight of activities
 - e. Manufacturer's certification for materials
 - f. Soil Erosion and Water Pollution Plan (SEWPCP)
 - g. Quality control plans, mix design submittals, pre-pave meeting
 - h. Buy America: steel/iron product certifications must be received before payment for that item, if a project has federal money
8. Submittals
 - a. Requests for Information (RFIs)
 - b. Change Orders require MaineDOT review; must include detailed description of scope change, independent cost estimate & time
 - c. Notification of anticipated issues, claims or disputes

[Date]

Jen Paul, Construction Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Contract Modification Request
MaineDOT WIN_____

Dear _____:

Attached for your review is Contract Modification #_____ for **[insert project scope]** in the Municipality of _____. The change will consist of **[insert description of contract modification including scope change and/or extra costs]**.

An independent estimate of the cost of the additional work is attached. This modification will add **[number of days]** to the original contract.

(Instructions: The amount of time required by the modification must be noted. If there is no change in the schedule, then state "0 days" or indicate that the modification will not change the amount of time associated with the contract.)

If you need additional information, please let me know.

Sincerely,

Local Project Administrator

Cc: MaineDOT Project Manager

PROJECT DESCRIPTION:	
CONTRACT MOD. NO.:	
PROJECT WIN:	
MUNICIPALITY:	
DATE ISSUED:	

To: _____, you are hereby notified, the following work is to be accomplished in accordance with the provisions of your Contract. The work will not be considered authorized for payment without the required signatures. Payment will be made as described.

(By signing this Order the Contractor agrees that all issues, including time, relating to the described work are satisfactorily resolved by this Order. No other compensation will be sought or made.)

DESCRIPTION:

--

REASON:

--

COST:

--

Amount of this Order: \$

Original Contract Amount	\$
Total Cost of this Contract Modification	\$
Total Cost of all Contract Modifications Including this Mod	\$
Percentage of Contract for this Mod	%
Total Percentage of Contract including all Mods	%
Total Contract Amount Including this Mod	\$

Additional Days Added (This Mod):	New Completion Date:
-----------------------------------	----------------------

TITLE:	SIGNATURE:	DATE:
Resident or Inspector		
Contractor		
Municipality		

[Date]

Jen Paul, Construction Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Inspection, MaineDOT WIN_____

Dear _____:

Your attendance is requested at the Final Inspection for **[insert project scope]** in the Municipality of _____ on **[insert date/time]**. At the time, we can make available all documentation and testing required for the project.

If you need additional information, please let me know.

Sincerely,

Local Project Administrator

Cc: MaineDOT Project Manager

INSTRUCTIONS: *This must be submitted on letterhead with all requested documentation.*

[Date]

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Invoice and Notification of Completion of Work

MaineDOT WIN _____; Contract # _____

This Municipality of _____ certifies that the contractor has completed all work on the project in accordance with the construction contract and approved modifications, and that:

- The Municipality has accepted the work;
- All quantities were measured in accordance with the contract;
- Final quantities have been reconciled and agreed to by the contractor;
- The Municipality has all required supporting documentation for the final quantities;
- There are no outstanding claims or disputes associated with the project; and
- All fees and contract balances have been paid, including expenses from preliminary engineering, right-of-way, construction, inspection, and construction engineering.

Attached is the final invoice for the project requesting reimbursement of \$_____ as MaineDOT's _____% share of expenditures for the service period, _____. Attached is the documentation to support this request, including copies of invoices received and checks issued. I understand that the Municipality's _____% share of MaineDOT's internal charges to the project will be reconciled and deducted from this final invoice.

Also attached is a copy of the federally required consultant evaluation for the project.

By signing this invoice, I certify to the best of my knowledge and belief that the information provided is true, complete, and accurate, and the expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal funding award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812.)

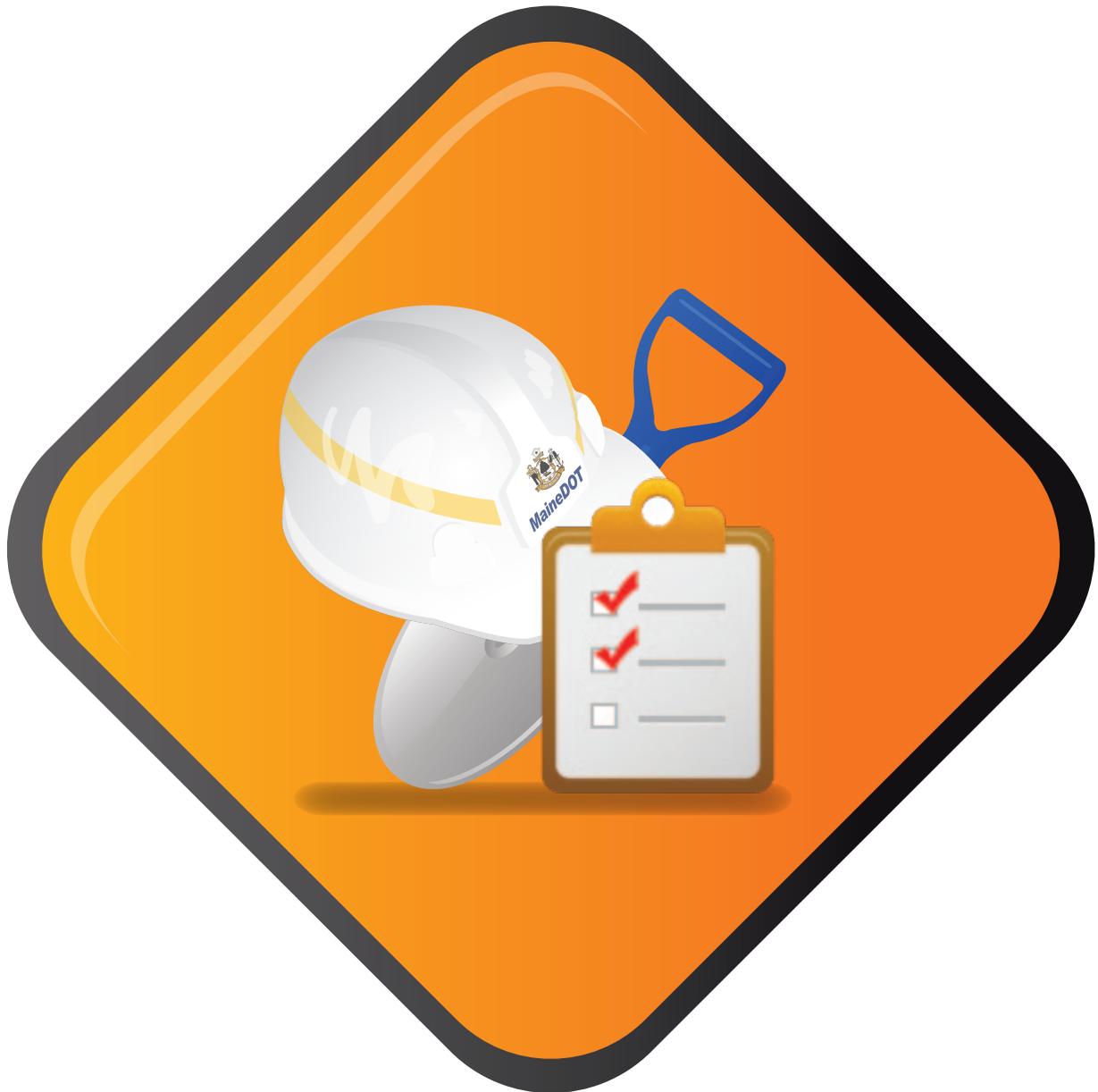
Sincerely,

_____, Local Project Administrator

Enclosure: Final billing

Local Project Administration Manual & Resource Guide

Construction Documentation



MaineDOT

Integrity - Competence - Service

Revised 2013

**PROJECT RECORD
KEEPING MANUAL**



2013

**GUIDE FOR CREATING,
MAINTAINING AND
SUBMITTING,
CONSTRUCTION
PROJECT
DOCUMENTATION
AND RECORDS**



MaineDOT

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REVISIONS

Rev No.	Revision Description	Page(s)
1	Added FHWA Construction Inspection Requirements	Appendix D
2	Added Final Inventory list	Appendix C
3	Responsibility of the Checker	109.10
4	Clarified the Definition of Lump Sum re: Contract Modifications	109.7
5	Pro-rating Lump Sum items in Contract Modifications	109.70
	Added the What, Why and How description to Contract Modifications	109.30
6	Figure; Contents of a Contract Modification	109.7
7	Figure; Common Excavation, Packaging references	203.5
8	Figure; ASCG, packaging references	304.10

SECTION 108 – MEASUREMENT AND PAYMENT

108.1 General.

This Section describes, in general, Departmental policies and acceptable methods for measuring and computing contract quantities for progress and final payments. Divisions 200 through 600 and 900 of this Manual explain in more detail, the requirements and procedures to follow.

There are two systems in use and acceptable to the Department for documenting and measuring quantities for payment: the traditional “paper” method, the computer software program Field Manager – Field Book and Field Pad method. Residents are encouraged to use the software program when feasible.

If the Resident chooses to use the paper method, they will have the following project records; a Final Quantity Book, a Final Quantity Computations Book, a Project Diary, Testing file and a Construction Book. Other fieldbooks may be required, such as a Drainage Book, depending on the complexity of the project. If Field Manager is used, the project records will consist of an Item History to Date instead of the Final Quantity Book, a Daily Diary, and Inspectors’ Daily Reports. The Inspector’s Daily Report is needed to generate progress estimate quantities. A Construction Book is almost always necessary; it is policy of the Department and good record practice that original field measurements must be entered in a bound fieldbook or PDA. The Final Quantity Computations Book may or may not be required, depending on the extent of computations needed to figure quantities.

Division 900 of this Manual explains further, and in more detail, project records required. It is suggested that you study Division 900 before proceeding beyond Sections 108 and 109.

For anyone needing training in the use of Field Manager, the Contracts Section will provide instruction in the application of this software program. You should contact the Contracts Section either directly or through your Supervisor for help.

Quantities for Progress Payments

After the formalities of contract award have been completed, the Contracts Section will initiate the first payment, which is Mobilization. The Resident will receive either a paper copy of the first estimate paid or an electronic transfer, depending on whether or not Field Manager is being used. The Resident should advise the Contracts Section, preferably before the contract is awarded, whether they will use paper or Field Manager to make progress payments. The Department encourages the use of Field Manager.

It is important to our highway and bridge contractors that they receive prompt and full payment of all monies due them for work satisfactorily performed. Unnecessary delay in paying the Contractor increases his or her cost of doing business, and these costs are ultimately passed on to the Department in the form of higher bid prices on future contracts. The Contractor is to be paid, on each progress estimate, the full estimated value of the work satisfactorily completed. The Resident should not hold payment of money due the Contractor other than what is sufficient to cover work still remaining to be done under a particular item. Quantities should be current to the end of the pay period, particularly for hot mix asphalt items because of the time-dependent nature of the asphalt escalator price adjustment Specifications. If a significant overpayment or underpayment is detected following the submission of a progress estimate, an additional estimate correcting the error should be submitted to the Contracts Section immediately. Section 108.2 of the Specifications further explains procedures for making progress payments.

Contract Specifications require the Department to pay the Contractor a minimum of once a month, but it is policy to make a progress payment every two weeks. The Resident will determine the quantities or the Contractor may submit, as allowed in Section 108.2, a requisition for payment. The Resident will review the figures submitted by the Contractor and so note in the project records. The estimate will then be forwarded to the Contracts Section, either electronically or on a paper copy, for payment. The Contracts Section will process the progress estimate for payment minus a retent. This retained amount is based upon Section 108.3 of the Specifications.

Quantities for progress payment will be estimated with the help of the following guidelines:

Quantities paid by the unit: Progress estimates can be based on a percent of the estimated quantity or on actual field measurements of the work done to date. The Resident is cautioned not to pay too high a percent of the estimated quantity without first checking the Engineer's Estimate for accuracy.

Quantities paid lump sum: The Resident may pay a percent of the bid price, as work progresses; amount paid is dependent on amount of work done. Contract Specifications will state, for some items paid lump sum, what portion to pay as work progresses.

Quantities paid load count: Whether by weight or by volume, quantity to date can be readily determined from daily totals entered in the Final Quantity Book/Item History to Date.

Quantities paid by the hour or force account: Hourly work items and force account work are determined from Daily Reports of Labor and Equipment Rental.

Regardless of the methods used to arrive at quantities for progress payments, the Resident will keep on file the notes and measurements used to document payments.. These records may be needed to explain to Auditors and to the Contractor how Quantities were determined.

108.21 Using the Progress Estimate Form – Paper Copy

Estimates must be made out on the computerized print-out generated by the Contracts Section. The first form the Resident will receive will be labeled "Payment Voucher Summary" number 0001, and it will show partial payment for Item 659.10 – Mobilization. The Resident will also receive, at the same time, "Progress Estimate" number 0002. Present policy is to fax the completed estimate form to the Contracts Section for processing. The resulting "Payment Voucher Summary" and the next "Progress Estimate" will be sent to the Resident as e-mail attachments.

Tracking of funding allocations requires separate cost figures for highway and bridge expenditures, for what is federally participating and federally non-participating, and for town and utility reimbursements. Each category of funds is designated by a number as, for example: 0001 for highway, 0002 for bridge. Categories are assigned by the Project Manager. Work done under the original contract items or added to the project, whether unit price, lump sum or force account, must be coded to the correct category, i.e., highway, bridge, non-participating, etc.

Progress Estimate. Final Quantity Estimate or Final Estimate. During the progress of work, the Resident will place a checkmark on the "Progress Estimate" line. When the project is closed out with the Contracts Section, the "Final Quantity Estimate" line will be checked and the words "Final Quantity Estimate" will be written on the "Comment" line in the upper right-hand corner of the estimate. The Final Estimate will be made out by the Contracts Section when the retent is released and paid off.

Pay Period Ending – Year, Month, Day. The date, entered by the Resident, should be the end date for the period the work has been done. This end date will be as current with the work as is practicable; it will be the middle and/or the last day of the month and not the first day of the next month for the purposes of figuring asphalt escalator price adjustments.

New Items. This section is used to make modifications to the contract, such as: items from one Pin to another Pin under the same contract, new items added by contract modification paid by agreed unit price, lump sum or force account, categories added, or work made non-participating.

Modifications are made as follows:

Catg #: Enter the appropriate four digit category number.

Item # (Or None): The item number can be obtained from the Bid Item Dictionary located at http://www.maine.gov/mdot/contractor-consultant-information/item_dictionary_english.htm . If the item does not appear in the Dictionary, print the word "None" in its place, and write a very brief description of the item or work order in the "Description" column.

Authorized Quantity: Enter the estimated quantity shown on the Work Order. If there is no work order, enter the actual quantity.

Quantity to Date: Enter the quantity you want to pay at this time. Figures can be carried to two decimal places.

Unit Price: Enter the unit price shown on the Work Order, or defined in the contract or in the Specifications.

RWO/EWO: Enter the Work Order or a Resident's Work Order number. To move an existing bid item from one Pin to another Pin on the same contract, use the same item number and use RWO/EWO zero. Items that are to be added to the Schedule of items through existing mechanisms in the contract without a RWO/EXO, such as; rock excavation, structural excavation-major structures-below grade and HMA pay adjustment, can be added by writing SS, standard Specifications, in lieu of a RWO/EXO number.

Description: Enter a description only if "None" was entered as the Item #.

Changes to lump sum items will be done as separate line item entries under the New Items section described above. The lump sum item originally in the contract will show a zero quantity for payment and will be re-entered under New Items with the new price.

The "New Item" procedure, or more pertinently, contract modification, will be processed by the computer and print it in the body of the next estimate at the end of the appropriate code section or in a newly coded section.

Specifications provide a mechanism for paying for certain items added to the contract without the need of a price quote from the Contractor. The following is a list of items commonly used and how to pay for them

<u>To Pay For</u>	<u>Use Item</u>	<u>Unit Price</u>
Rock Excavation	203.20 ComExc	6 X Bid
Struct. Rock Excavation – Drainage	203.20 Com Exc	16 X Bid
Excavation for Slope Blanket	203.20 Com Exc	2 X Bid
Struct Rock Excavation – Major Str	206.082 Str Ea Exc – Major Sit	6 X Bid
Str Ea Exc – Major Str, Below Grade	206.082 Str Ea Exc – Major Str	1 ½ X Bid
Str Rock Exc – Mjr Str, Below Grade	206.092 Str RockExc – Mjr Str	1 ½ X Bid
Aggr Sub Crse – For Foundations	304.10 Aggr Subbase Crse – Grav	2 X Bid
Aggr Sub Crse – Slope Blanket	304.10 Aggr Subbase Crse – Grav	2 X Bid

Specifications provide a mechanism for paying for certain items that were bid to be measured using one method, but may have been measured using a different method. The following is a list of commonly used shrink and swell factors.

<u>Item Measured</u>	<u>Original Source Method</u>	<u>Shrink/Swell Measured Quantity</u>
203.20 Common Exc	IN-Place	
In-place		1.0
Truck Measured		.90
203.25 Borrow	In a Pit	
Pit		1.0
In-Place		1.15
Truck Measured		.90
304.10 ASCG	In-Place	
In-place		1.0
Truck Measured		.80
203.27 Rock Borrow	In-Place	
In-place		1.0
Truck Measured		.75
Measured Stockpile		.75

Stockpiled Materials. This section is used by the Resident to pay for stockpiled materials. Section 108.4 of the Specifications allows for the payment of non-perishable materials stored for future use on the project.

Departmental policy is as follows:

1. Partial payments may be made for certain materials delivered to the project but not yet incorporated into the work.
2. Payment will be shown on the progress estimate as a separate line item entry.
3. Materials will not be paid until the Contractor furnishes the Resident with copies of receipted bills.
4. As the stockpiled material is incorporated into the project and paid under the bid item, the stockpiled quantity should be reduced proportionally.
5. When work involving the stockpiled item is complete, that portion remaining in the stockpile, if any, shall be reduced to a "0" quantity on the progress estimate.

Payment for a stockpiled item is entered on the progress estimate as follows:

Category No.: Enter the appropriate four digit category number. Refer to New Items above, if necessary.

Item No: Enter the same item number as shown for the pay item in the contract.

Quantity To Date: Enter the quantity, typically 1, or a portion of 1. Figures can be carried to two decimal places.

Unit Price: The unit price for payment under the stockpiled item is determined from receipted bills. The unit price shall equal the dollar amount shown on receipted bills divided by the quantity.

RWO/EWO: MA, material allowance, shall be used designate this item as allowable stockpile payment After the first estimate is processed with the above information, the stockpiled item will appear in the body of the next estimate directly following the item as originally bid.

Retent Modification. This line is used by the Contracts Section to control the retent status of the Project.

Body of the Estimate. The Resident fills in only the “Quantity to Date” column of this section for each item that has changed since the previous estimate. The total quantity to date may be an increase or a decrease from the previous estimate. Entries will be made in red ink.

Quantities will be entered as follows: whole numbers to the left of the decimal point and tenths and hundredths, if required, to the right of the decimal point. Quantities or percentages can be entered to three decimal places. Numbers are free read; for example, 2 is the same as 2.0 or 2.00.

For quantities with a unit of Lump Sum, show the quantity for progress payment from 0.01 to 1.00. Be careful to place the number on the correct side of the decimal point, i.e., whole numbers to the left and tenths/hundreths to the right.

For items with a unit of Each, show the quantity as a decimal, for example, for a Field Office, 0.33 or 0.67 or 1.00.

If you are adding a Lump Sum item by work order, enter the quantity for payment as 1 L.S. and not 100% L.S. If payment shows as 100% LS, the mistake of paying 100 times the L.S. price can result.

108.22 Using the Progress Estimate Form – Field Manager.

Progress estimates may also be submitted to the Contracts Section electronically, using the Field Manager construction management software program.

To use Field Manager, the Resident must import the database file of his or her project to the Field Manager program. This file will be obtained from the Contracts Section, either by network transfer or by floppy disk. If a Resident is using Field Manager solely for the generation of progress estimates, it will be necessary to generate an IDR (Inspector’s Daily Report) posting the quantities for each item that needs to be paid, prior to each progress estimate submittal.

Once the IDRs’ have been generated and saved, the next estimate can be added. After adding and before generating the next estimate, it should be checked for accuracy. When the Resident is confident in its accuracy, they then generate it.

When an estimate is generated, a file is automatically created in the “outbox” folder of the “fieldmgr” folder, which is accessed by using “Windows Explorer” or “My Computer”. This file should then be transferred to the appropriate project folder located on the Network Neighborhood at Dotaugl/\$com-Cons/Field ManagerProjects for processing by the Contracts Section. If network connections are not possible, the file can be transferred by using a floppy disk.

When the Contracts Section receives the file, it is then processed in the Transport System and a “turnaround” file is created. This file is then picked up by the Resident, as described above, and imported back to the Field Manager program before the next estimate can be generated.

108.3 Quantities for Payment

Method of measurement and payment for items in the contract and for extra work are grouped as follows:

1. Plan Quantities.
2. Lump Sum Quantities.
3. Measured Quantities.

Specifications, under Sections “Method of Measurement” and “Basis of Payment” state how items in the contract are to be paid.

Plan Quantities. Quantity for final payment will be the figure shown in the Schedule of Items as defined in the contract Specifications or as mutually agreed to by the Resident and the Contractor.

If the Specifications state, that for some items, final payment will be based on the quantity shown in the Schedule of Items, more commonly referred to as the “plan quantity”, that figure will be paid whether the amount is estimated correctly or not. It may be altered only if a design change is made in the field. Example items are: granular borrow backfill and structural excavation for bridge abutments, granular borrow backfill for multi-plate pipes, and shoulder rehabilitation.

Final payment can also be based on plan quantity by agreement between the Resident and the Contractor.

Examples are: common excavation and gravel. For such an agreement to take place, two conditions have to be met: (1) the estimated quantity must be reasonably accurate and (2) work done under the item must be to the same limits as shown in the Engineer's Estimate. Reasonably accurate is defined as the Estimate being within five percent of the true figure. The Resident must check the Estimate before proposing the agreement. Errors and changes to limits of work will be taken into consideration and corrections made.

Payment based on "plan quantity" will be documented by notes of inspection and acceptance entered in the project records.

Lump Sum Quantities. Some items in the contract will be designated lump sum for payment as defined in the Specifications. Examples are: field office, structural concrete, and maintenance of traffic. "Lump sum" quantities must be documented by notes of inspection and acceptance recorded in the project records.

Measured Quantities. Payment for some items in the contract will be determined from measurements and computations of the actual work done. Sources for measured quantities can be: surface area measurements, three-dimensional volume measurements, average end area measurements, delivery slip measurements, weight measurements, hourly measurements, and force account measurements.

Surface Area Measurements. By Specifications, some items in the contract will be measured and paid based on surface areas. Examples are: clearing, butt joints, shoulder rehab, cold recycled-in-place pavement, and rehabilitation of structural concrete deck slab. Measurements and any sketches will be entered in a bound fieldbook; these can be taken in the field or scaled off the plans or a combination of both. Computations will be done in the same fieldbook or in the Final Quantity Computations Book.

Volume Measurements. Items measured by volume will be specified in the Contract. Examples are: common excavation, borrow, gravel, and concrete. Volumes can be figured using three dimensional field measurements, such as for roadway undercuts, or trench boulders. For large quantities, the average end area method will be used to figure earth excavation, rock excavation, and borrow. Any basic route survey textbook will explain in detail the average end area method. "Typical factors" will be used for figuring aggregate subbase course – gravel. Computer programs are available from the Survey Section to compute borrow and excavation.

If the Resident chooses to figure their own quantities rather than having the Survey Technicians do this, they must consider correcting between stations on curves as on ramps, for example. Also, it must be remembered that the average end area method is not usually accurate between any two stations, particularly if the areas cross sectioned differ considerably. This method is only accurate when at least three cross-sectional. Areas are used to compute a quantity.

Load Count Measurements, by Volume: Items paid load count will be identified by Special Provision in the Contract. In addition, Specifications allow load count Measurement up to specified maximum limits. Load count is used when it is not practical to measure the quantities by cross-section or by three dimensions.

When materials are measured by load count, the following rules apply

- a) A delivery slip must accompany each load.
- b) The slip must be of a printed format and it must be serially pre-numbered.
- c) It will contain the project number, item description, and truck number.
- d) It must be issued by the truck driver or Foreman present at the site and signed by him or her.
- e) The Inspector or Ticket Taker must witness every load dumped and as evidence, will sign the slip. Partial loads will be noted as: "3/4 full", for example.

Volume need not be shown on the slip but the Inspector will measure every truck body and enter measurements in a bound fieldbook, signed and dated. The Correct shrinkage factors will be applied when the quantities are figured for payment. Borrow and excavation measured load Count are reduced 10 percent; gravel is reduced 20 percent; concrete, riprap, and loam are measured on a "yard for yard" basis, i.e., no shrinkage or swellage is applied. Refer to the Specifications under the appropriate items for swellage and shrinkage factors.

Load Count Measurements, by Weight: Specifications require that hot mix asphalt items be measured by weight. A delivery slip will accompany each truckload of *mix* delivered to the job. Slips will contain the following information:

- a) Slips will be serially pre-numbered.

- b) Weight of each batch and total weight of the load will show on the slip if the plant weigh system is computerized. If not, only the total weight of the load needs to be shown, and the slip must be signed by a certified weigh master.
- c) The Paving Contractor's name must appear at the heading, in print.
- d) Every slip will be signed by the Ticket Taker.
- e) A Cover slip showing the day's total will be made out and signed by the Contractor's Representative and the Resident.

All weigh slips for hot mix asphalt must be kept in the Resident's office for the duration of the project. When the Resident submits their records to the Contracts Section for final review and close-out, delivery slips may be discarded but the Cover slips will remain with the project records.

The Testing Technician will do some check weighing to verify the accuracy of the scales. Check weighing procedures are explained in Division 100, Section 108, of the Specifications.

Hourly Work Items. Extra work, unforeseen, is sometimes measured and paid by the hour. This work can be paid by using the hourly bid items in the contract, by force account or by a combination of both. Section 109.07, of the Specifications and Section 109 of this Manual explain in detail, rules covering extra work. The Daily Report of Labor and Equipment Rental will be used to document the hours of labor and equipment, and materials used. Authorization for the work by the Resident or by Contract Modification and description will be noted in the Remarks portion of the Report which will be signed by both the Inspector or the Resident and the Contractor's Foreman or Superintendent.

This Section, Quantities for Final Payment, is intended to describe only in general, methods used to measure and pay final quantities. The Resident will refer to Divisions 200 through 600 and 900 for more detailed discussion of the requirements for field documentation, measurement, and payment.

SECTION 109 – CONTRACT MODIFICATIONS

General.

Specifications require the Contractor, as directed by the Resident, to perform extra or unforeseen work added to the contract a supplemental agreement, in the form of a contract modification, will be written to authorize and to document the added work.

Conditions Requiring Contract Modifications.

Contract Modifications will be initiated and written by the Department, normally by the Resident, and will be **signed** by the Resident. All Contract Modifications, except those initiated by standard Specifications i.e.; rock excavation & Quality Assurance Pay Adjustments, will require the **signature** of the Contractor and may also require the **signature** of administrative personnel within the Department, as explained further in the next Section. A contract modification will be written when the following conditions are present on the project:

1. Changes in Specifications.
2. Substitution of materials.
3. Changes in Testing Requirements.
4. Changes or Extra work with –in the scope of the contract.
5. Changes in design beyond the scope of the contract.
6. Adding or changing a D.B.E. subcontractor. (Requires a signature from Human Resources)
7. Adding payment or credit for Incentives / Disincentives to Contract Items.
8. Changes that result in an increase or decrease of 25 percent or more in major items of the contract. A major item is one that exceeds 10 percent of the original contract amount, as awarded. These changes may result in an increase or decrease in unit bid prices. Section 109.1.2 defines a major change.
9. Changes in deadline dates, completion dates, or time extensions not covered elsewhere.
10. Additional driveways, copy to Right of Way team member.
11. Municipal Government, County Government, or other State Agency request for additional work or change in proposed work. If the Agency involved requests additional work, it will be required to pay the non-federal share. The Contract Modification will clearly state what portion will be paid by the Agency and will be signed by a responsible person from that Agency.

109.3 Contents of a Contract Modification.

Every Contract Modification shall include the What, Why and How of the scope of work within the Contract Modification. The What describes the work that is to be incorporated, the Why is the reason(s) for adding the work and the How is a detail description(s) of how the work is to be paid. A more detailed list of contents is listed below.

1. Description and location of work.
2. Reason for the change or for the added work.
3. Method of payment, i.e. existing bid items, contractor quoted work, force account, and benefits to the project.
4. Procedures to be followed by the Contractor. Time constraints, Special Provisions, and Supplemental Specifications are to be made part of the Contract Modification, as applicable.

5. Price quotations, if required on Contractor Letterhead.
6. Time extensions and reasons for the extra time, if needed. A time extension is not granted unless the work directly affects the Contractor's progress, known as the "critical path".
7. Right-of-way acquisitions or easements if needed.
8. Cost estimates. The Resident will include with the Modification, his or her estimate of the cost of doing the work, whether it is done by unit price, lump sum, or force account. The Resident should arrive at the cost estimate independently of the Contractor's figures as much as possible. It should be more than just a review of the Contractor's numbers. An excellent source of historical data is the MDOT Bid History by items, which is located at <http://dot0dta1asora14.mdot.w2k.state.me.us:7778/freeprod/pBidHistEnglish.display>.
9. Approvals and **signatures**. The Contractor's **signature** shall be on all Modifications; it signifies their concurrence with performing and payment of the work. A Contract Modification is a supplemental agreement and is not legally part of the original contract unless it contains the **signatures of both parties**. Contract Modifications may be required to be submitted to the Resident's Supervisor for his or her approval and signature. Section 109.4 Contract Modifications – Resident Authority and 109.5 Contract Modifications Requiring Supervisor Approval explain further, and in more detail under what conditions additional signature are required.
10. Federal participation. All Contract Modifications on federally funded projects must be designated "**participating**" or "**non-participating**", i.e., whether or not Federal funds will be expended in the costs involved. In general, the FHW A will participate in the cost of all work except when an outside agency such as a Town, County, or a private developer requests the work, or the work is beyond the scope of the contract and is of no direct benefit to the project. Conditions under which FHW A approval is needed are outlined in Section 109.6 of this Manual and what approvals are required,

109.4 Contract Modifications - (Residents Authority)

The Department has authorized the Resident to execute certain work orders at the project level without the approval of their Supervisor, but subject to the following limitations:

1. Each Contract Modification is limited to \$10,000.00, not to exceed a cumulative cost of 3 percent of the awarded contract amount.
2. The Resident's authority is limited to construction of the project as intended and designed and does not extend beyond the original scope of the contract.

In addition to the above limitations, the requirements of Section 109.3-Contents of the Contract Modification will apply, as applicable.

109.5 Contract Modifications Requiring Supervisor Approval.

The following types of changes are considered to be beyond the limits of the Resident's authority to approve and therefore must be submitted to the Supervisor for concurrence and **signature**:

1. Changes in geometric design of the project or structural design of bridges, including foundations, and culverts greater than 1.8 m. in diameter.
2. Revision of typical plan cross-sections.
3. The addition, deletion, or relocation of any bridge or other structure which affects the function or intent of the approved design.
4. Changes in Right-of Way
5. The addition of work outside project limits. An exception is work necessary for erosion control, in which

case the property owner's permission is needed and put in writing.

6. Changes that alter contract Specifications or other requirements of the contract.
7. Changes that will affect the safety and operation of traffic other than what is allowed under the terms of the contract.
 2. Changes that result in an increase or decrease of 25 percent or more in major items of the contract. A major item is one that exceeds 10 percent of the awarded contract amount. These changes may result in increases or decreases in bid prices. Section 109.1.2, Division 100 of the Specifications – Green Cover, defines a major change.
9. Changes that exceed \$10,000.00 in cost and result in negotiated prices or payment by force account.
10. Changes which may require modification to previously approved environmental permits.
 2. Quality Control/Quality Assurance provisions added to the contract.
 2. Significant changes in completion dates or other time constraints, if not addressed as part of other work orders.

All of the above situations, the Resident can obtain verbal approval from his or her Supervisor before the Contractor does the work, and will follow up by a signed work order. The Supervisor's approval will be noted on the Contract Modification.

109.6 Contract Modifications Requiring Federal Approval.

Every construction season, the Federal Highway Administration will designate certain federally funded projects as "Direct Involvement" projects. On these jobs the FHW A will be involved in the design and construction more so than on other projects, and will do on-site visits on a regular basis. The Resident should ask their Supervisor or the Designer if his or her job is a Direct Involvement project.

Types of work orders described in Section 109.5 –Contract Modifications Requiring Supervisor Approval will also need concurrence from the FHW A on Direct Involvement projects. The Resident can obtain Federal approval verbally and so note on the Contract Modification this can be done by phone or when the FHWA Engineer visits the project, preferably prior to the work being done. Details of the conversation such as name of the FHW A Engineer and date the conversation took place should be recorded on the Contract Modification. A copy of the Contract Modification should be mailed to the FHW A for documentation. Copies of all Resident's Contract Modifications should also be sent to the FHW A prior to project completion.

109.7 Method of Payment for the Work.

The Specifications, Section 109.7 – Equitable Adjustments to Compensation, specifies that payment for extra work will be made by any one or a combination of the following methods:

1. Agreed Unit Prices.
2. Lump Sum.
3. Force Account.

Agreed Unit Price includes miscellaneous extras such as, but not limited to: labor, materials, equipment, supervision, overtime, travel time, benefits, small tools, transportation, profit, overhead, and other incidental items of work.

Lump Sum is all inclusive and includes extraneous items such as: profit, overhead, regular and overtime labor,

supervision, benefits, materials, equipment, and miscellaneous small tools.

Lump Sum payments for work included in a contract modification should be reserved for work that is difficult to measure, for example a temporary signal. A Lump Sum payment may also be used to track the cost of a particular scope of work, for example, the change(s) may include using several existing or added items. In this case the resident shall measure, inspect and accept the quantities and pay items per standard specification(s), and then when the scope of the work is complete, make the payment of all work Lump Sum.

It is becoming common practice for the contractors to request additional compensation for existing lump sum item(s) in the contract when work is added through contract modifications. For example, the resident decides to add 1000' of underdrain to a project and the contractor request that the lump sum items of Traffic Control, Erosion Control and Field Office be pro-rated for any days that may be added to the completion date. The resident may honor this request, but special attention should be given to the reasonableness of the cost before the agreement is reached. For example, a week is added to the contract and the pro-rated value for a field office is \$200 per day, then the resident should decide to move toward force account to pay for the actual cost of the contractor.

If agreement cannot be reached between the Contractor and the Resident on methods 1 or 2, the Contractor must accept payment on a force account basis. Reference is made to Specifications, Sections 109.3 – Extra Work and 109.7.2 – Basis of Payment.

Force Account should be used only when either of the following conditions are present:

1. The extent of the work is difficult to predict, and therefore the cost cannot be estimated with any degree of accuracy.
2. The Resident and the Contractor cannot come to an agreement on unit prices *or* lump sum prices. Sections 109.7.3, 109.7.4, and 109.7.5 of Division 100 – Specifications, explain in detail how to calculate payment made by force account.

The following is a brief summary of the contents of the Sections noted above:

Materials: actual cost supported by receipted bills plus 15 percent mark-up

Labor: payroll cost for regular and overtime plus 90 percent for laborers and foremen directly involved in the work.

Equipment: "Blue Book" rates, available from the Contracts and Specifications Section.

Mark-Ups: The Prime Contractor is allowed a 5 percent mark-up on a subcontractor's bill for profit and handling of paperwork. When force account work is involved, a 90 percent mark-up is allowed on payroll labor rates and a 15 percent mark-up is allowed on materials. No further mark-ups are permitted.

Regardless which method is used to pay for extra work, whether agreed unit prices, lump sum, or force account, estimating the cost before the work is done is necessary. The Resident should have an idea of what the work will cost before the Contractor submits their price. The figures will be submitted to the Supervisor with the Work Order; other documentation such as receipted bills and price quotes will remain in the Resident's project files. Back-up documentation and cost estimates for Resident's Contract Modification will be kept in the project files on site also.

Contract Modification

MDOT

3/12/2007 11:26 AM

FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Cont. Mod. Number	Revision Number	Cont. Mod. Date	Net Change	Awarded Contract Amount
21		3/12/2007	\$-1,000.00	\$2,373,386.00
Route				
Contract Location RTE.35				

Short Description

This section will contain the scope of work that is added by this contract modification

Description of Changes

This section will contain the information on how the added work is to be paid.

Such as;

- 1) using existing bid items
- 2) new bid items that include a quote from the contractor
- 2) Lump sum quote from the contractor, see attached
- 3) Force account

Also note all other considerations that are to be included with this contractor modifications

Such as but not limited to;

- 1) Specification and or testing revisions
- 2) Design revisions
- 3) Time extensions

New Items

Project: 002852.10, KENNEBUNK

Category: 0001, HIGHWAY ITEMS

Item Description	Item Code	Prop.Ln.	ItemType	Unit	Proposed Qty.	Unit Price	Dollar Value
TRAFFIC CONTROL PENALTY	652.3901	1215	CHANGE	EA	-1.000	1,000.00000	\$-1,000.00

Reason: Note the reason for adding this item to the contract.

Such as: ref project Diary date 8-17-07

Subtotal for Category 0001: \$-1,000.00

Subtotal for Project 002852.10: \$-1,000.00

Figure; Contents of a Contract Modification

Division 200 – Earthwork

201.5 Clearing, Tree and Stump Removal- Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure clearing and the removal of single trees and stumps.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing the subcontractor's clearing and selective clearing operations; equipment, personnel, and station to station limits of work will be noted. Workers and equipment need not be recorded every day unless there are frequent changes.

The Contractor, or more commonly the clearing subcontractor, will take the clearing limits from the plans and flag them in the field. If the Resident makes substantial changes or if the limits are not shown on the plans, a clearing list will be made up by the Resident and a copy given to the Contractor. For sample Inspector Diary entry, ref pg 90

Measurement and Payment.

Final quantity for payment can be plan quantity providing the estimated quantity is accurate and work is done as estimated. The Resident will adjust the plan quantity, upward or downward, according to changes made in the field.

Should the Resident find it necessary to establish new limits for the entire job, final pay quantity will be figured from these revised limits flagged in the field. A list of new limits will be made part of the project records.

Whether the Resident makes final payment based on plan quantity or based on a list of revised clearing limits, he/she must substantiate final payment by notes stating that clearing has been completed and accepted to limits flagged. These notes will be made in the Final Quantity Book or in the Construction Book.

Single trees and stumps required to be removed outside clearing areas will be field counted and entered directly in the Final Quantity Book for payment. All measurements will be signed and dated.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such; reference to measurements, clearing limits flagged, and statements of inspection will be made as necessary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

202.5 Removal of Structures, Obstructions, Pavement - Field Documentation, Measurement and Payment.

This Section describes the recordkeeping necessary to document and measure the removal of structures, pavement, and other existing structures designated to be removed under pay items in Section 202.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing, for example, demolition of buildings, removal of bridge superstructures and substructures, removal of pavement and other obstructions for which there is a pay item in the contract. Station to station limits of work done by the Contractor, if appropriate, and disposal will be noted. Disposal usually consists of hauling materials to a waste dump, turning over to a State or Town Official, or stockpiling for future use.

The Contractor may need a permit to dispose of certain building materials off the project. The Resident should review the special Provisions of the Contract and contact the Environmental Services Section in Augusta for advice regarding permits.

Special Provisions of the Contract may require that certain components of the existing bridge become property of the State or the Town. The Resident should obtain the signature of the individual receiving such materials.

Measurement and Payment.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such.

For items to be paid lump sum, the Resident will make reference to notes in the Project Diary that document progress of work. A statement of final inspection and acceptance will be made in the Final Quantity Book.

For items to be paid by the unit, such as removal of existing concrete, reference will be made to field measurements. These measurements will be entered in a Construction Book or directly in the Final Quantity Book; all measurements will be signed and dated.

For items to be paid plan quantity, such as removing existing pavement, the estimated quantity must be accurately figured and the actual work limits must be the same as those shown in the Engineer's Estimate. The Resident may have to adjust the Estimate to reflect field changes. As for lump sum items, the Resident will make references to Diary notes verifying that work has been done as estimated. These notes may be made directly in the Final Quantity Book. If the plan quantity is a "throw-in" quantity, i.e., has no basis other than a guess, the work in question will have to be field measured.

Removal of curb, fence, and guardrail will be incidental to the work in general. No separate payment will be made unless there exists specific pay items in the contract for these items.

All calculations and data entries must signed, dated and checked; the checker must sign and date their work.

203.5 Excavation - Field Documentation, Measurement, and Payment.

This section describes the recordkeeping necessary to document and measure excavation. It is recommended that you read Division 900 - Project Records of this Manual to better acquaint yourself with project recordkeeping in general.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report. By Specifications, the Contractor is required to place usable excavation within the slopes of the embankment;

no excavation can be hauled off the project without the Resident's approval. It is their responsibility to determine what material can be used on the job, or can be wasted, or stockpiled for future use. This becomes particularly important on a "borrow job" as the amount of wasted excavation directly affects the amount of borrow required. A project is a "borrow job" when material from off the project is required to meet the fill requirements of the contract.

The Resident, or the Inspector if one is assigned to cover excavation items, will keep daily notes of the Contractor's activities relative to earth and rock excavation. It is the Resident's option, whether or not the Inspector is to keep a Diary or Daily Report. The Resident may prefer to have all daily documentation entered directly in the Project Diary. Entries will be made documenting station to station limits of material excavated and locations where placed. It is important to record such information as: material directed to be placed within the core of the embankment or in waste storage areas within embankment limits, or to be stockpiled for future use on the project, or hauled to waste dumps off the job.

Circumstances surrounding the hauling of excavation off the project must be explained, particularly if the project is a borrow job. Material suitable to be placed in the embankment, but wasted without the Resident's permission will be deducted from borrow. Likewise, material only suitable to be placed in waste storage areas outside the core of the embankment, but wasted without permission will also be deducted from borrow. Excess excavation, not required for embankment construction, will be hauled off the project and disposed in waste dumps or other locations approved by the Resident. Excavation that the Contractor stockpiles away from the job for future use on the project will or will not be measured for a second payment, depending on whether or not the Resident has allowed stockpiling. Section 203 of the Specifications, Basis of Payment, allows payment for the rehandling of excavation when it is not possible for the Contractor to do otherwise.

Added undercuts, changes in ditches either in grade or offset, changes in backslopes such as flattening, changes in excavation limits to the approaches, and changes in drives must also be noted and measured for payment.

Grade Check Book. It is a requirement of the Department that the Resident or Inspector spot check the Contractor's grading operations to assure that fine-grading is done within construction tolerances stated in the Specifications. It is recommended although not a requirement, that a "Grade Check Book" be made part of the project records. This book will serve as a convenient and ready reference for checking sub grade, sidewalks, ditches, and backslopes on mainline and side roads, and also for keeping tract of what areas the Contractor has fine-graded and what areas have been spot checked. This book should be set up prior to the start of excavation and borrow operations so that the Resident, when in the process of figuring offsets and grades, will discover possible errors in the plans and will also become familiar with the geometrics of the job before work begins.

Whether or not the Resident uses a Grade Check Book, some written documentation must be entered in the project records that the Contractor's fine-grading operations have been checked and approved. These entries may be made in the Project Diary, Inspector's Diary, Daily Report, directly in the Final Quantity Book, or in the Grade Check Book if there is one.

For sample project diary documentation ref page 64, Final Quantity Entries ref page 65 & 66 and Construction Book entries ref page 80,82,85,88 & 92.

Measurement and Payment

Final quantity for payment can be the figure shown in the Schedule of Items in the contract, more frequently called the "plan quantity". The Resident may pay plan quantity as final payment but the following two conditions must be met: the quantity estimated, i.e., the Engineer's Estimate, must be reviewed for accuracy and considered reasonably accurate, and the limits of excavation in the field must approximate those estimated.

Frequently the plan quantity must be adjusted, upward or downward, because of changes made in the field and also because of increases or decreases in quantity of rock excavation estimated. The Engineer's Estimate must be reviewed to assure that rock is not included in the quantity of earth figured. Changes will be measured and recorded directly in the Final Quantity Book or in the Construction Book. Types of changes are described under Field Documentation, above. The Final Quantity Book and the Construction Book are described in Division 900, Section 901.3 of this Manual.

Field changes and added work will be measured by load count, by length, width, and depth, or by original and final cross-sections. Load count will be reduced by 10 percent to arrive at a quantity equivalent to what would be measured in its original position. Computations may be done in the Final Quantity Book, in the Construction Book, or on computation sheets that are part of the Final Quantity Computations Book. If the Resident uses the computer program "Field Manager", the Item History to Date will be generated in lieu of a Final Quantity Book.

Wasting of excavation without the Resident's permission will be measured and deducted from borrow. Measurement will be by load count or by length, width, and depth. Load count excavation will be reduced to 90 percent for deduction purposes; excavation measured in-place off the project will be deducted at 100 percent of quantity so measured.

Muck and grubbing excavated beyond limits shown on the plans will not be measured for payment unless the Resident has authorized a change in the limits. Lateral excavation limits for muck excavation are determined by the intersection of the bottom of the excavation and a 1: 1 slope line drawn down from the finish shoulder break. Borrow placed in over excavated areas will not be deducted unless the excavation beyond lateral limits is deliberate or due to negligence by the Contractor.

All pay quantities will be entered in the Final Quantity Book and referenced to the source document; the final pay quantity will be so labeled. A chain of referencing from the

Final Quantity Book to the original record is always needed. All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Rock Excavation: Unlike earth excavation, it is usually the case that the actual quantity of rock excavated will not agree with the Engineer's Estimate. Since soundings are normally taken some distance apart, original ledge cross-sections drawn on the plans do not accurately describe top of ledge, particularly where there is earth overburden. Abrupt changes in elevations are not always detected and also, boulders may be mistaken for solid ledge. This lack of detailed information results in errors in the estimated quantity, and therefore the "plan quantity" cannot be used to make final payment. If earth is paid plan quantity, it must be adjusted according to actual quantity or rock paid.

Rock has to be re-sectioned before removal; but, if the Contractor does not want to strip ledge prior to blasting, top of ledge elevations can be determined, by recording from a known elevation, depth the drill rig has to go before hitting solid rock. Section 203.04 General, requires that the Contractor remove overburden before original cross-sections are taken; it is the Resident's prerogative, therefore, whether or not to allow the Contractor to leave the earth in place before blasting.

Quantity of ledge for payment will be figured from "new" originals to the design cross-section if rock is removed to the construction limits described in Section 203.05 of the Specifications. No payment will be made for rock removed beyond the design cross-sections unless the Resident has directed a change in design. Section 203.18 Method of Measurement, Specifications, defines pay limits. Quantities will be computed by the average end area method. A computer program is available from the Augusta Office, Survey, to figure ledge quantities. Print-outs will be made part of the Final Quantity Computations Book.

Boulders, concrete, solidly mortared masonry, all defined in Section 203.01(b), and small quantities of rock

such as ledge nubbles, will be measured by three dimensions. Boulders encountered at sub grade during excavation operations will be measured as rock excavation and the portion estimated to be above sub grade will be deducted from earth excavation. A “pay” boulder is defined in Section 203.1(b) referred to above.

The situation may arise where ledge is not measured in its original position but is measured load count or in its final location as riprap or rock fill. The quantity so measured will be reduced to 75 percent to determine the amount of rock excavation for payment, the reason being that ledge swells after it is excavated. Measurements and sketches if needed for clarification will be entered in a bound field book, which would be the Construction Book or the Final Quantity Book.

If the job is bid “unclassified”, the Resident should make note of the elevation of actual top of ledge where backs lopes are designed on a Y4: 1. In deep ledge cuts, pay limits of earth overburden have to be adjusted depending on the elevation of the ledge.

If the Contractor wastes rock without the Resident’s permission and the result is an increase in the amount of borrow needed to meet the fill requirements of the contract, the quantity of rock wasted will be deducted from borrow at 100 percent of the quantity so measured. All measurements and load counts will be entered in a bound field book.

All quantities for payment will be entered in the Final Quantity Book and referenced to the source document. There must always be a trail of reference from the Final Quantity Book to the original record. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work. The final quantity for payment must be labeled as such and signed, checked, and dated.**

Item History to Date

MDOT

3/12/2007 12:13 PM

FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Item Description COMMON EXCAVATION			Item Code 203.20	Prop. Line 0050	Unit M3	Type ORIGINAL ITEM	Unit Price 8.00000
Authorized Quantity 23,500.000	Authorized Amount 188,000.00	Quantity Placed 23,523.000	Quantity Paid 23,523.000	Quantity Unpaid 0.000	Item Completed No		
Documentation All material that is not used on this project is being wasted at Cooper waste area			Attention No	Notes Ref book #4, Grade check book for subgrade checks			

Projects And Categories

Project	Project Description	Catg	Category Description	Authorized Quantity	Pending Changes	Quantity Placed	Quantity Paid	Quantity Unpaid
002852.10	KENNEBUNK	0001	HIGHWAY ITEMS	23,500.000	0.000	23,523.000	23,523.000	0.000

Contractors

Contractor	Remarks
A & V CONSTRUCTION, CORP.	

FIGURE: COMMON EXCAVATION – PACKAGING REFERENCES

203.6 Borrow - Field Documentation, Measurement, and Payment.

This section describes the recordkeeping necessary to document and measure borrow required to meet the fill requirements of the contract.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: Specifications, Section 203.03, Unauthorized Use of Materials, and Section 203.04 General, require that no excavation suitable for embankment construction be hauled off the project. The Resident or the Inspector is to make note of wasted excavation and the nature of it, since the more excavation the Contractor removes from the project, whether authorized or not, the more borrow is needed to construct the embankments.

The Resident or the Inspector will keep daily notes in the Project Diary or the Inspector's Diary/Daily Report relative to the Contractor's operations. Name of the pit that borrow is being hauled from and station to station limits it is being placed, whether in the core of the embankment or in waste storage areas. These areas, which are beyond the 1: 1 slope from the finish shoulder break, are to be reserved for the placement of grubblings or other excavation not suitable for constructing the core of the embankment. The Contractor should not be allowed to place borrow in these areas if there is waste excavation available.

Ideally, the Contractor should complete all excavation operations prior to hauling borrow to the project. If he/she places borrow on the job before all excavation is complete, the Resident should advise the Contractor that he/she is doing so at the risk of having some borrow deducted from the final pay quantity at a later time. As stated previously, no excavation is to be removed from the project if it can be placed either in the core of the embankment or in waste storage areas. The case may arise, usually because traffic has to be maintained on the existing road, where borrow has to be hauled to the job before excavation is complete. The result is that good excavation is wasted; in this situation the Contractor is not penalized. Discussions relating to these matters must be noted in the Diaries.

Borrow diverted for the Contractor's own use must be documented as well; materials used to maintain a haul road or town road, or to grade the equipment yard is all to be deducted from borrow if the material comes from a sectioned pit.

Grade Check Book. As stated previously under Section 203.5 - Excavation, documentation of subgrade checks is a requirement of the Department, whether the operation is in a cut or in a fill. Refer to Section 203.5, Grade Check Book, for further discussion of grade checks.

For sample final quantity book entries ref page 67, for construction book entries ref page 82 and for inspectors diary entries ref page 90 & 91

Measurement and Payment

Borrow: While common excavation can be paid plan quantity, borrow cannot. An exception is when the plans require backfill behind abutments and around multi-plate pipes to be granular borrow or gravel borrow. Specifications, Section 203, Method of Measurement, allow backfill around bridge structures to be paid plan quantity.

When the Designer estimates the quantity of borrow required for the project, he/she makes assumptions that may or may not be representative of what actually happens in the field, particularly on bridge projects. Quantity of excavation estimated to be available for fills is, to some extent, guesswork. Some of the excavation may not be suitable for embankment construction or a situation may exist on the job that makes excavation not available in a timely manner; an example would be traffic maintenance on the existing roadway. The result is that the actual quantity of borrow used on the job is usually not what is estimated.

For these reasons, final quantity of borrow must be determined from actual measurements. The Resident will use the following methods or a combination thereof:

Cross Sections. By Standard Specifications, the contract bid price for borrow is based on the material being

measured in its original position, i.e., in the pit. When measured any other way, the quantity must be adjusted as explained below. Original cross-sections are taken in the pit after the Contractor has stripped the surface and before excavating and hauling operations begin. The Survey Crew should flag the pit limits to alert the equipment operators not to remove material beyond the outer limits of the original cross-sections. Final sections will be taken after the pit has been graded and before grubblings, loam, or other material that can support a growth of grass has been spread. Specifications, Division 105.8.6, addresses pit rehabilitation.

Borrow pushed up and beyond the edge of pit at its perimeter will be deducted from the overall quantity measured for payment. The Survey Section uses a "total station" computer program to take cross-sections and to compute quantities; a print-out of each cross-section is available.

Load Count. It is frequently not practical to figure borrow quantities by cross-sectioning the source. Since nearly all borrow pits are commercial pits and therefore are available to the public, it is nearly impossible for the Contractor to guarantee or even assure the Resident that all material taken out of a sectioned pit will be hauled to the job.

Load count, providing the total quantity measured is less than 5000 cm, offers an alternative to the cross-sectional method. There are two problems common to load counted material: trucks not being fully loaded and drivers reporting more trips than what they actually haul. For these reasons, it is advisable to assign an inspector or ticket taker to witness and to collect delivery slips for every load hauled. If, because of lack of personnel, this cannot be done, the Resident or Inspector assigned must do a random check of the Contractor's hauling operations. The Resident should do a "time study", i.e., determine how long it takes for a driver, or more than one, to make a round trip from the pit to the site, and also to visually observe if the trucks are fully loaded.

Section 203.18, Method of Measurement, Specifications, requires that borrow by load count must be reduced to 90 percent of the quantity so measured.

In-Place Measure. A third method of measuring borrow is to compute the quantity in its final position, more commonly called "in-place-measure". This method is particularly suited to bridge projects. The procedure to follow is to figure the total quantity in the embankment from the design template to original ground or to bottom of grubbing limits. The excavation placed in the fill would be deducted from the total embankment and the resulting figure would be swelled 15 percent for final payment.

If earth excavation that is placed in fills is measured in its original position, it will be shrunk 15 percent before being deducted from the total embankment quantity. If it is measured in its final position, i.e., in the embankment, it will be deducted at 100 percent of the quantity so measured. If it is measured load count, it will be shrunk 25 percent before deduction.

If rock excavation that is placed in fills is measured in its original position, it will be swelled 33 percent before being deducted from the total embankment quantity. If it measured in its final position or by load count, it will be deducted at 100 percent of the quantity so measured.

Borrow Deductions. When the Resident computes the final pay quantity of borrow, he/she must determine if any of the material should be excluded from payment.

Unless directed by the Resident, all usable excavation will be placed in the core of the embankment and all waste excavation will be placed in waste storage areas, either as shown on the plan cross-sections or as directed in the field. Only excess excavation can be hauled offsite. Borrow diverted for the Contractor's own use or placed in unauthorized areas will be at their expense. Specifications, Section 203.18 - Method of Measurement, states that material placed outside the embankment will not be eligible for payment.

For deduction purposes, the following situations are to be considered:

Borrow is placed ahead of excavation operations which results in a surplus of excavation: Common excavation and rock excavation wasted will be swelled 15 percent before deduction; reference is made to Section 203.04.

Excavation is hauled off the job instead of being placed in the embankment and then later replaced with borrow because of convenience and ease of operation to the Contractor: The quantity of excavation that could have been placed in the embankment will be deducted from borrow at 100 percent of the quantity so measured.

Excavation is placed in the embankment beyond the design template in concentrated areas as opposed to being distributed throughout all fills, thus creating "fat" slopes: Earth and rock excavation placed beyond the

pay limits defined in Section 203.18 - Method of Measurement, Specifications – 6", will be deducted from borrow at 100 percent of the quantity so measured.

Borrow is placed in embankments beyond the design template, the result being "fat" slopes: Quantity placed beyond the pay limits defined in Section 203.18 will be deducted from borrow. Deduction will be made at 100 percent of the quantity so measured.

Borrow is diverted for the Contractor's own use: Material used to dress the Contractor's equipment yard or a waste dump, or to upgrade a haul road or town road will not be included for payment. Deduction will be made at 115 percent of the quantity so measured; refer to Section 203.03 - Unauthorized Use of Materials, Specifications.

Final quantity for payment will be entered in the Final Quantity Book. Subtotals, and deductions making up the final quantity for payment will be entered in the Final Quantity Book and referenced back to source. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

206.5 Structural Excavation - Field Documentation, Measurement, and Payment.

This Section describes the recordkeeping necessary to document and measure the excavation of earth and rock required to install culverts, bridge abutments, and other structures.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Drainage Book, and Construction Book: The Resident or Inspector will keep notes describing the Contractor's excavation operations required for the installation of drainage, bridges, and other structures. These notes will describe location and final disposition of the material, whether on the job or off the job.

Documentation of installation of culverts, underdrain, catch basins, and manholes will be entered in the Project Diary. If the drainage is extensive, a Drainage Book should be set up prior to the work being done and all notes pertaining to drainage work will be entered in the Drainage Book. Reference is made to Division 900 of this Manual for further explanation of the Drainage Book. Undercutting to provide a stable foundation, bedding, excavating rock, and material used to maintain traffic will be noted and measured for payment.

Documentation of construction of bridge abutments, pier footings, wingwalls, retaining walls, multiplate pipes, and other major structures will be entered in the Project Diary or Construction Book. The Construction Book will be used if layout and/or field measurements and sketches are required. Typical measurements would be for rock excavation and undercutting. Division 900 of this Manual explains the Construction Book and how it is used.

Documentation of installation of other miscellaneous minor structures will be entered in the Project Diary or the Construction Book. The Construction Book will be used if layout and measurements for removal of rock or unstable foundation material are required.

For sample construction book entries ref page 84 & 86 and for inspectors diary entries ref page 89,90,91 & 93.

Measurement and Payment.

Drainage and Minor Structures: In areas of full width construction and reconstruction of shoulders, excavation for culverts, catch basins, and other minor structures is incidental from sub grade down to 12" below the flow line of the pipe or bottom of the base. Excavation required below that point for stable foundation or change in grade will be paid under the item "Structural Earth Excavation-Below Grade". That quantity will not be paid plan quantity; this figure is a "throw-in" and is not necessarily based on work anticipated to be done. Quantity for payment must be field measured. Measurements and sketches will be entered in the Drainage Book, signed and dated. Depth will be as directed by the Resident and width will be the limits defined in Section 206.04 of the Specifications and sheet #605(1) of the Standard Details for underdrain.

Rock excavation for drainage and other minor structures will be the quantity actually excavated to the pay limits defined in Section 206.04 of the Specifications. Measurements and sketches will be entered in the Drainage Book, signed and dated.

Bedding material will be computed to depth authorized beginning at the flow line of the pipe or bottom of the base in the case of catch basins; width will be as defined in the Specifications.

Major Structures: Section 206.04 of the Specifications states that final payment for earth excavated for bridge abutments and piers will be the quantity shown on the plans unless the structure is founded on ledge. In this case payment for earth and rock removed would be based on field measurements. Since top of ledge shown on the plans is not accurate, new ledge originals would be needed. Original cross-sections will be taken at right angles to the centerline of bearing at close intervals.

Quantity of earth will be figured vertically from original ground or roadway sub grade to top of ledge and horizontally to pay limits shown on the plans or to 18" beyond the footing. If actual top of ledge is lower than the elevation shown on the plans, earth excavated below that elevation will be paid at 1 1/2 times the bid price for structural earth excavation. Typically, elevation of top of ledge is shown on the plans as, for example: 26 +/- . Such a designation would be interpreted to mean that only earth excavated below elevation 25 would be paid at 1 1/2 times the price. Another example would be: if the elevation shown were 26.0+/-, earth excavated below 25.9 would be paid at 1 1/2 times the price. Likewise, if the elevation of bottom of footing is lowered due to change in design, excavation below, the original elevation shown would also be paid at 1 1/2 times the price.

If the plans call for excavating into ledge for the footing, the Contractor is allowed a pay tolerance of up to 12"

below the elevation of the bottom of the footing. Rock excavated and concrete placed below the 12" tolerance will not be paid. If the Resident directs the Contractor to remove rock below bottom of footing elevation because of a change in design or because of the soft nature of the ledge, it will be paid at 1 ½ times the bid price for structural rock excavation.

"Pay" boulders, defined in Section 203.01(b) of the Specifications, that are found partly within the excavation limits for drainage and major structures will be measured and computed for payment as follows: that portion estimated to be within the structural excavation pay lines will be paid as such and the remainder will be paid as common rock excavation.

There will be no payment for rehandling structural excavation; the bid price includes excavating, rehandling as many times as necessary, and placing in its final position, whether it be in the embankment, waste storage areas, or off the project.

Final quantities of structural earth excavation-below grade and structural rock excavation will be entered in the Final Quantity Book and labeled as such. References will be made, as appropriate, to the Drainage Book or Construction Book for measurements and computations.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Division 300 – Bases

304.5 Aggregate Base and Subbase - Field Documentation, Measurement, and Payment.

This Section describes the recordkeeping necessary to document and measure aggregate base and subbase on the project.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's aggregate base and subbase operations. Information recorded will be: name of pit the material is coming from, station to station limits where it is placed, and whether placed in one lift or two lifts.

The Resident is responsible for quality assurance testing; he/she must assure that a Technician from the Department is available to do the testing required. Tests the Contractor may take are not to be counted toward the total number needed; these tests are to be considered as quality control for the Contractor's benefit only. Reference is made to Division 900, Section 901.4, of this Manual for further discussion of "Minimum Testing requirements".

Gravel can fail gradation or density or both. Corrective action directed by the Resident will be documented; more compactive effort may be required or material failing in gradation may have to be removed.

Sections 304.03 and 304.04 of the Specifications requires the Contractor to place the material in two lifts, but he/she can be allowed to place it in one. Gravel placed in one lift must meet density requirements full depth and therefore the lower portion of the one lift will be tested. If it fails, the Contractor must take whatever action necessary to attain passing density full depth.

Grade Check Book: The Department requires that the Resident or Inspector do random checks of sub grade and top of gravel to assure that the Contractor is placing gravel within construction tolerances. Checks should be done between stations as well as on station. Reference is made to Division 900, Section 901.3 and to Division 200, Section 203.5 for further discussion of the Grade Check book.

For sample project diary entries ref page 64, for final quantity book entries ref page 69, for construction book entries ref page 81 & 82 and for inspectors diary entries ref page 91 & 92.

Measurement and Payment.

Final quantity for aggregate base and subbase can be figured by anyone or a combination of the following methods:

Plan Quantity. Quantity for payment can be plan quantity providing the Resident reviews Engineer's Estimate for accuracy and the work is done to the limits estimated. It is often the situation that side streets and mainline approaches and drives are changed to match field conditions; the Estimate should be adjusted to meet these field conditions as necessary. Payment by plan quantity shall be documented by written agreement in the form of a Resident's Work Order. The agreement should state that the plan quantity will be adjusted upward or downward if changes are made in the field. Changes will be measured by three dimensions or load count described below.

In-Place Measurement. If the estimated quantity has no basis, commonly referred to as a "throw in" figure, gravel for the project will have to be refigured. Typical factors should be used for mainline travelway and shoulders where possible. Three dimensional measurements and/or plan dimensions can be used for drives, approaches and intersection areas. Gravel used to backfill undercut areas or to provide bedding for drainage can also be measured and computed by three dimensions to limits authorized. For drainage, depth will be figured from flow line of the pipe and width will be figured to the lateral pay limits defined in Section 206.04 of the Specifications.

Load Count. Gravel can be measured load count if: there is not a large quantity involved and the work involves mostly traffic maintenance or matching into, existing material. By Specifications, gravel measured load count will be reduced 20 percent for payment to arrive at an equivalent quantity measured in its final position. Refer to Section 304.06 of the Specifications for clarification.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such. Reference will be made to grade checks, measurements, load count delivery slips, and computations in the project records, as necessary. Measurements and delivery slip totals must be entered in a bound book which can be the Final Quantity Book or the Construction Book. Reference is made to Division 900, Section 901.3 of this Manual for further discussion of field books. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Item History to Date

MDOT 3/12/2007 11:36 AM
FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Item Description			Item Code	Prop. Line	Unit	Type	Unit Price
AGGR SUBB COURSE - GRAVEL			304.10	0080	M3	ORIGINAL ITE	16.00000
Authorized Quantity	Authorized Amount	Quantity Placed	Quantity Paid	Quantity Unpaid	Item Completed		
12,400.000	198,400.00	12,701.000	12,701.000	0.000	No		
Documentation			Attention	Notes			
All material coming from the Smith Pit in Biddeford			No	See Book #5, Grade check book for all notes on Finegrade checks			

Projects And Categories

Project	Project Description	Catg	Category Description	Authorized Quantity	Pending Changes	Quantity Placed	Quantity Paid	Quantity Unpaid
002852.10	KENNEBUNK	0001	HIGHWAY ITEMS	12,400.000	0.000	12,701.000	12,701.000	0.000

Contractors

Contractor	Remarks
A & V CONSTRUCTION, CORP.	

Figure: 304.10 ASCG PACKAGING REFERENCES

307, 309 & 310 Recycled Pavement - Field documentation. Measurement, and Payment.

This Section describes the recordkeeping necessary to document and measure the recycling of existing pavement.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's operations on the road and in the plant.

Full Depth Recycled Pavement. Field notes will include weather conditions, station to station limits of work, and description of equipment used: pulverizer, grader/spreader, rollers. The Inspector will also document inspection procedures and check measurements of work done, such as: depth of grinding operations, cross-slope, and density of the finished product. Any added aggregate or recycled pavement used as necessary to restore cross-slope will also be noted, tested, and measured for payment if required.

Plant Mixed Recycled Pavement, Foamed Asphalt & CIP require a QC/QA plan to be submitted. Field notes will be the same as for recycled pavement with additional documentation regarding plant inspections.

For sample final quantity book entries ref page 70.

Method of Measurement.

Final quantity of recycled pavement can be figured by either of the two following methods:

Plan Quantity. Quantity for payment can be "plan quantity" providing the estimated quantity shown in the Schedule of Items is reasonably accurate and work is done to the limits estimated. Payment by plan quantity should be documented by written agreement such as a memo or Resident's Work Order, between the Resident and the Contractor.

The agreement must stipulate that the plan quantity will be adjusted upward or downward if changes are made in the field. Quantities paid "plan quantity" will be documented by notes of inspection and acceptance entered in the Project Diary, or directly in the Final Quantity Book.

In-Place Measurement. If the estimated quantity is not figured accurately enough to pay as a final figure, the final pay quantity will be determined from field measurements, or will be refigured from the plans, or a combination of both. Length will be distance between stations and width will be field measured. Frequency of width measurements will depend on road width consistency. All measurements, and sketches if required, will be recorded in a Construction Book or directly in the final Quantity Book and signed and dated. Irregularly shaped areas such as ramp and side street approaches and intersections will be broken down into basic geometric shapes and measured by length and width. Dimensions taken from the plans and corresponding notes of inspection and acceptance also recorded in a Construction Book or the Final Quantity Book.

Added Material. If specified in the contract, material added to maintain cross-slope in areas not designated on the plans or in the construction notes will be paid separately under the item used. Measurement will be by load count reduced by 20 percent for final payment. Every load will be documented by a delivery slip that has been signed and dated at the point of delivery by the Resident or Inspector. Daily totals will be entered in the Final Quantity Book. Refer to Section 304.06 - Method of Measurement of the Specifications and Special Provisions for further explanation of shrinkage factors.

The Special Provisions, Section 108 should also be reviewed for the incorporation of Asphalt Pay Adjustment and the procedure how to determine the adjustment.

Final Quantity. Final quantity for payment will be entered in the Final Quantity Book and so labeled. References will be made to statements of inspection and acceptance, plan dimensions, field measurements, and delivery slips, as necessary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Division 400 – Pavements

401.5 Hot Mix Asphalt Pavement - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure hot mix asphalt placed on the project.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Paving Report, Tally Sheet, Test and Data Reports: The Resident or Paving Inspector will document on a daily basis, the Contractor's paving operations. He/she will keep notes regarding: station to station limits of paving, inspection problems, observations regarding quality control, equipment, personnel, weather, and temperatures. It is strongly suggested that the Paving Inspector use the Paving Report. This document has a preprinted format that serves as a reminder to record all of this information. This report is to be filled in on a daily basis, prior to the start of the next day. Ticket taker will keep a tally of all loads delivered by noting delivery slip number, the location where placed and sign the delivery slip upon delivery. The primary purpose of the Truck Tally Sheet is to control the yield and to determine which loads are involved if a problem area develops. If the Resident can isolate the loads, he/she can correlate the questionable material with specific batching data on record in the plant and in this way the cause for the bad mix may be determined.

Contract Specifications state that quality of mix will be controlled by following the "QC/QA" requirements of Sections 401 and 106 of the Specifications. The Contractor will provide quality control by testing and inspection and will propose their quality control procedures by submitting a Quality Control Plan to the Resident for Departmental approval. Specifications, Section 401 outline the basic requirements of the Plan and also procedures for quality assurance testing that the Department will perform.

Section 401 of the Special Provisions defines the quality control and quality assurance requirements at three levels: Methods A, B, and C. Method A provides for pay incentives and disincentives. Method B provides for disincentives only. Quality control and quality assurance procedures are the same for Methods A and B.

Method C is used for mixes with quantities less than 250 tons, sidewalks, drives, and other mixes behind the curb that are generally referred to as "hand-placed". Quality control requirements are not as stringent as for Methods A and B. Section 401 defines the types and frequencies of QA tests to be taken.

Special Provision, Section 403, designates which method is to be used for a particular pavement item, usually based on quantity. To better understand quality control, quality assurance, and Methods A, B, and C, the contents of Specifications - Section 401 and Special Provision - Section 403 should be thoroughly read by the Resident and the Paving Inspector before paving operations begin. All quality control records and quality assurance records will be filed together in the Testing File daily.

For sample final quantity book entries ref page 71 and for inspectors diary entries ref page 93.

Measurement and Payment.

The delivery slip for each load of hot mix asphalt delivered to the project will be signed at the point of delivery by the Resident, Inspector or Ticket Taker. Daily total quantities for each pay item will be documented by a cover slip signed by the Contractor's Representative and the Resident or Inspector, and will be entered in the Final Quantity Book; all entries will be signed and dated. Delivery slips will be kept in the Resident's field office until the records are submitted to the Project Review Unit for final review. At that time the weigh slips may be discarded, but the cover slips will be kept as part of the project records.

Occasionally a load will be split between two pay items. Quantities will be determined by fractions noted on the slip, example: "pay 1/3 load as hand-placed". A rejected load will be documented by a note on the slip stating the reason such as: segregation, dry load, or low temperature.

Check weighing to verify the accuracy of the scales will be done twice during every five days of production. Section 401.085 of the Specifications explains the check weighing procedures.

Pay factor computations for incentives, disincentives, and penalties will be part of the Testing File but final cost figures will be entered in the Final Quantity Book with the digits 01 and descriptions added to the pertinent pay item number, for example: 403.20801 Incentive-HMA-9.5 mm.

Final quantity for payment will be figured in the Final Quantity Book from daily totals. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Division 500 – Structures

501.5 Foundation Piles - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document the installation and measurement of foundation piles.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Pile Driving Inspector will keep notes describing the Contractor's pile driving operations; personnel, equipment, working hours, and which abutment or pier being worked will be recorded.

The Resident will make a note in the Project Diary of the following: approval of the pile driving equipment, approval of driving procedures, approval of driving hammer, inspection and approval of pipe piles before Contractor places concrete. Sections 501.03 - Equipment and 501.04 - Driving Procedures and Tolerances of the Specifications address, in detail, equipment and driving of piles.

The Resident will document static and dynamic load testing. Static load testing: approval of testing procedures and the results will be recorded in the Project diary. Dynamic load testing: a report of test results will be submitted to the Resident and placed in the Testing File. Specifications, Section 501.07 - Pile Testing and Acceptance explains the requirements of load testing.

Pile tips and pile splicing procedures must be approved by the Resident. Notes will be made in the Project diary. Reference is made to Section 501.09 of the Specifications.

The Resident or the Pile Driving Inspector will complete the following records and make them part of the Final Quantity Computations Book:

Pile Layout Diagram. The layout diagram is a sketch of the outline of the foundation and the batter, identification, and location of each pile by number.

Pile Driving Report. This report identifies each pile driven by number, location, driving length, pay length, and cut-off length. It also gives the type of hammer and other data pertinent to the operation. This report must be kept current with the work and must be signed by the Inspector.

Report of Record Pile. This report is a driving log of a pile; it is an indication of the energy required and the resistance encountered during the driving operation. Two record piles are required for each foundation unit. These reports must also be signed and dated.

For sample project diary entries ref page 87 and for inspectors diary entries ref page 94.

Measurement and Payment.

Foundation Piles. Payment for piles furnished will be based on quantities ordered in writing by the Resident. Cut-off piles in excess of 10 feet for each piece will become property of the Department. A Special Provision in the Contract will designate how the excess will be disposed.

Payment for piles installed will be determined from pay lengths shown on the Pile Driving Report; pay length is the difference between the driving length and the cut-off length. In the case of pipe piles, there is no payment for concrete in them.

Splices and Tips. These will be recorded for payment on the Pile Driving Report.

Loading Tests. These tests will be paid per each; reference will be made to appropriate Diary notes and test results for documentation of quantities paid.

All final quantities for payment for piles delivered, piles driven, load tests, splices, and tips will be entered in the Final Quantity Book. References to documentation of quantities will be made to pile driving reports, to test results, and to entries in the Project Diary or Inspector's Diary for statements of approval. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

502.5 Structural Concrete - Field Documentation Measurement and Payment.

This Section describes the recordkeeping necessary to document and measure concrete for major and minor structures.

Field Documentation. -

Project Diary, inspector's Diary/Daily Report: The Resident or inspector will keep notes describing the Contractor's pre-placement and placement activities, such as: excavation and preparation for erection of forms and installation of reinforcing steel. Equipment, personnel, weather, temperatures, and location of work site will be recorded also.

It is policy of the Department that the Inspector document in writing the inspection and approval of forms and reinforcing steel before a concrete placement. The Contractor is also required to do a "dry run" with the screed machine before the deck placement. The Inspector will note their observations during the dry run and also measure and record thickness of the deck slab as the concrete is placed. Notes can be entered in the Project Diary or Inspector's Diary or directly in the Final Quantity Book.

Concrete for sign bases, light bases, traffic signal bases, and other minor structures will be documented by Inspector's statements verifying that placement of forms, steel cages or mesh, anchor rods, and conduit have been checked and accepted.

For sample final quantity book entries ref page 72 & 73, for construction book entries ref page 84 and for inspectors diary entries ref page 89.

Measurement and Payment.

Final quantity for payment will be lump sum or by the cubic meter computed in-place as specified in the Schedule of Items in the Contract Book.

Lump Sum. This method of payment is specified in the bid schedule if the dimensions of the structure, be it abutment, pier, or deck, are clearly defined and not subject to change in the field. Final quantity for payment will be entered in the Final Quantity Book as "Lump Sum" and reference will be made to inspection and approval of forms, dry run of screed machine, check of the slab thickness, as appropriate.

Cubic Meter. Concrete paid by the unit is usually specified when the dimensions of the structure are not clearly identified, as when the footing is on ledge, or when the work consists of extending an existing abutment or placing a new footing on dry laid granite. In this situation, concrete is measured by delivery slip. The Inspector will sign the slip when the concrete is delivered to the site and he/she will also note amount wasted if any. The note will say, for example: "wasted 1!4 cu meter", Quantity of concrete wasted shall be co-signed by the Contractor's Representative to show agreement with the amount in question. Delivery slip daily totals will be entered in the Final Quantity Book. The concrete may also be measured in-place providing a sufficient number of field measurements are taken; measurements will be entered in the Construction Book. All delivery slip totals and field measurements will be signed and dated.

Seal Concrete. When the item Structural Concrete - Placed Under Water, also known as "seal concrete", is bid by the cubic meter, and the distribution slab above it, part of the item Structural Concrete - Piers or Abutments, is also bid by the cubic meter, the following shall apply:

1. Top of seal is below plan elevation: Quantity of distribution slab is figured from plan measurements for payment and the difference between the plan measured quantity and the delivery slip quantity is paid as seal concrete. Presumably the delivery slip quantity for the distribution slab will be greater than the plan measured quantity.
2. Top of seal is above plan elevation: Quantity of distribution slab is determined from delivery slips for payment and the difference between the plan measured quantity and the delivery slip quantity is paid as seal concrete. Presumably in this case, the delivery slip quantity for the distribution slab will be less than the plan measured quantity.

To determine whether top of seal is above or below plan elevation, check shots will have to be taken to determine the approximate elevation of the seal.

Occasionally the Schedule of Items will specify concrete to be paid by the cubic meter as opposed to lump

sum even though the dimensions of the substructure are clearly shown on the plans and will not change in the field. In this situation the concrete can be paid plan quantity providing the estimated amount is figured to the same degree of accuracy as it would be for final payment. The Resident will check the calculations and so note in the Final Quantity Book.

Where a footing is founded on ledge, concrete placed more than 12" below the designated bottom elevation of the footing will not be included in the pay quantity of concrete figured in-place. Likewise, if the concrete is figured by load count, quantity below the 12" line will be figured in-place and deducted from the total delivery slip quantity.

Since final ledge cross-sections will have already been taken to figure structural rock excavation, these same cross-sections will be used to compute quantity of concrete for payment or to figure quantity for deduction.

If the item "concrete fill" is added to the contract by work order, the lateral pay limits of the fill must be specified in the work order and the final quantity must reflect a deduction or non-payment for concrete placed beyond pay limits.

Contract Specifications stipulate that quality of concrete will be controlled by following the "QC/QA" requirements of Sections 502 and 1 06 of the Specifications. The Contractor will propose their quality control procedures by submitting a Quality Control Plan to the Department for approval. The Contractor will do quality control testing and the Resident will do quality assurance testing.

There are basically three levels of QC/QA: Method A, Method B, and "Non-QC/QA "; Special Provisions will specify the method for each item. Method A provides for incentives and disincentives; Method B provides for disincentives only. The Non- QC/QA method is used when the concrete in question must only meet the minimum quality standards in the Specifications. Examples are: armored joint repairs, surface repairs to wingwalls, bridge decks, abutments, piers, or box culverts, and modifications to concrete endposts. Cylinder breaks below what is allowed in the Specifications will be reason for either rejection of the concrete, or negotiation of a price credit. Quality control and quality assurance are explained in detail in Sections 106 and 502 of the Specifications.

Final quantity for payment will be entered in the Final Quantity Book: References will be made to source documentation, such as: Final Quantity Computations Book, delivery slips, form checks, and reinforcing steel checks. Delivery slip quantities and form checks, and re-steel checks will be entered in the Construction Book or directly in the Final Quantity Book.

Quality control records, quality assurance records, and pay factor computations will be filed in the Testing File for each day's placement. Incentive and disincentive computations and cost figures will be entered in the Final Quantity Book with digits 01 and descriptions added to the pertinent pay item number, for example: 502.2101 Incentive-Str Conc Abuts & Ret Walls. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

503.5 Reinforcing Steel - Field documentation Measurement and Payment.

This section describes the recordkeeping necessary to document and measure reinforcing steel delivered and placed in the structure.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress on this item; also to be noted are crew, equipment, weather, and location work is taking place, i.e., abutment, footing, pier, deck, or sign base.

When the steel is delivered, the Resident/Inspector will inspect the material for condition and proper storage. He/she will record inspection and acceptance in the Project Diary or directly in the Final Quantity Book. Delivery invoices will be kept as part of the project records.

When the Contractor places the re-steel, the Resident/Inspector will inspect for bar size, length, splice assembly, and proper positioning within the forms. He/she will document acceptance of reinforcing steel and splices by notes entered in the Project Diary or directly in the Final Quantity Book. Inspection will also be noted in the project records for re-steel placed in minor structures, such as traffic signal bases, sign bases, or concrete sidewalks.

Measurement and Payment.

Quantity for payment of reinforcing steel delivered and placed will be the quantity shown on the Steel Schedule in the contract plans, checked and corrected as necessary.

Final quantities of re-steel will be entered in the Final Quantity Book, signed and dated. Reference will be made to the Steel Schedule, computations in the Final Quantity Computations Book, and to statements of inspection and acceptance in the Project Diary or other project records.

Final quantity of splices will be entered in the Final Quantity Book. Reference will be made to the plans for the number paid; additional splices requested by the Contractor and approved by the Resident will not be measured for payment. Reference will also be made to Project Diary entries for documentation of splices installed and accepted.

Steel mesh placed in sidewalks, sign bases and traffic signal bases will not be measured for payment but is included in the bid price per unit. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

504.5 Structural Steel - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document payment, delivery, and erection of structural steel.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will record, on a daily basis, the Contractor's progress in the erection of structural steel. He/she will keep notes regarding, but not limited to: the installation of beams, splices, diaphragms, and bearing assemblies. Crew, equipment, weather, and location, i.e., which span, girder, or abutment being worked on and lot numbers of materials will be noted.

Documentation for payment will be as follows:

Fabrication and Delivery. When the steel is brought on the job, the Resident and or Inspector will identify and record which girders, braces, bearing assemblies, and other hardware are delivered, and he/she will inspect for fabricating and shipping defects. Items to consider are:

1. Full bearing of bearing stiffeners.
2. Web buckles in welded girders within tolerance.
3. Welds in proper locations.
4. Burrs and roughness removed.
5. No loose or scaly rust in splice areas.

Notes will be made in the Project Diary or directly in the Final Quantity Book, signed and dated.

The Department will perform through the services of a private Testing Agency, shop and mill inspection of structural steel fabrication. The Fabrication Engineer will forward a copy of the Inspection Reports to the Resident. In addition, the Inspector should become familiar with the many other details of inspection explained in Section 504.4 of this Manual.

Erection. The following tests will be done and documented in the project records at the time steel is erected:

Rotational Capacity Test. Specifications, Sections 504.28 and 713.02 require that a "rotational capacity" be done on two sets of nuts, bolts, and washers in every lot delivered to the project. This test determines the compatibility of the components. The results will be noted in the Project Diary or directly in the Final Quantity Book.

Bolt Tension Test. Specifications require the Contractor to install and test bolt tension in girder splice connections and diaphragm/cross-brace connections using the following methods:

1. Calibrated Wrench Method. If the Contractor makes use of a calibrated torque wrench to do QC testing, the Resident or Inspector will use the Calibrated Wrench Method to perform QA testing. Ten percent of all bolts or a minimum of two bolts per connection in all girder splices will be checked and noted on the splice inspection diagram.
2. Turn of the Nut Method. If the Contractor uses this method, the Inspector will witness the tightening of all bolts in the girder splices and so note on the splice inspection diagram. This inspection procedure should be verified weekly with a calibrated torque wrench. For diaphragm and cross-brace connections, the Inspector will observe the Contractor doing the turn of the nut method is acceptable; other test procedures are not required.
3. DTI Method. The DTI method of installation will be checked by the Inspector with a "feeler gauge". The Inspector will further verify the accuracy of the feeler gauge by checking bolt tension with a calibrated torque wrench on a weekly basis.
4. Inspection of Tension Control Bolts. The Inspector will inspect the bolts to verify that the spline has been snapped off. A spot check with the calibrated torque wrench will be done every week as required for methods noted above.

Departmental policy requires that the Inspector verify bolt tension in girder splices and cross-brace and diaphragm connections. Any of the above methods will be used and the results will be recorded in the Project Diary, Construction Book, or in the Final Quantity Book. On a multi-span structure, a splice layout diagram is suggested to keep account, on a daily basis, of which splices have been checked and accepted; notes will be made directly on the diagram. This sheet will become part of the project records. An overview of the structural steel layout, such as the one found in the contract plans may be used.

Measurement and Payment.

Final quantity for payment will be entered in the Final Quantity Book; references will be made to field inspections, rotational capacity tests, bolt tension tests, and other notes of inspection. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

505.5 Shear Connectors - Field documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure for payment, stud welded shear connectors.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes documenting the Contractor's progress on this item; crew, equipment, and location of work, i.e., which span and which girder, will be noted. Field welding will be done by a prequalified welder, as required under Section 504.49 of the Specifications.

The Resident or Inspector will inspect all shear connectors to assure an acceptable 360 degree weld and will also perform the "bend test" described in Section 505.04 of the Specifications. These inspection procedures will be recorded in the Project Diary or directly in the Final Quantity Book.

Measurement and Payment.

Quantity for payment, lump sum, will be recorded in the Final Quantity Book, signed and dated. Reference will be made to statements of inspection and acceptance in the project records. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

507.5 Railings - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure for payment, the installation of bridge railing.

Field Documentation

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes documenting the Contractor's progress on this item. Crew, equipment, and location of work will be noted, for example: which span if a multi-span structure, and which side, left or right, will be recorded.

Measurement and Payment.

If the item is paid lump sum, notes of inspection and acceptance will be made in the Project Diary or directly in the Final Quantity Book. If the item is paid plan quantity, the Resident will check the accuracy of the computations and will refigure the quantity from the plans if necessary. He/she will also make entries in the Project Diary or Final Quantity Book relative to inspection and acceptance. If the item is paid by the unit, field measurements will be entered in the Construction Book or the Final Quantity Book, signed and dated.

Final quantity for payment will be entered in the Final Quantity Book, and referenced to source documentation, such as: field measurements, plan calculations, or statements of inspection and acceptance, as appropriate.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.

508.5 Membrane Waterproofing - Field Documentation. Inspection and Payment.

This Section describes the recordkeeping required to document and measure the installation of membrane waterproofing on bridge decks.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's preparation and installation of membrane waterproofing on bridge decks. Crew, equipment, weather conditions, and temperatures will be noted. Manufacturers' names of primer, membrane, and mastic will be recorded and verified with the Department's Qualified Products List before approval for use. Acceptance of the item after work is completed will be recorded in the Project Diary.

For sample inspectors diary entries ref page 93

Measurement and Payment.

Final quantity for payment will be lump sum entered in the Final Quantity Book. Reference will be made to notes of inspection and final acceptance. **All calculations and data entries must be signed, dated, and checked; the checker must sign and their entries.**

509.5 Structural Plat Pipe and Arches-Field documentation, Measurement and Payment.

This Section describes the recordkeeping required to document and measure the assembly and installation of structural plate pipes and pipe arches.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress of the installation of the structural plate pipe. Notes will be made regarding, but not limited to: assembly in the dry or in the trench, excavation, bedding, torque checks, stream diversion, cofferdams, and backfilling. Crew, equipment, and weather will also be noted.

To document payment for the item, the Resident/Inspector will inspect and note acceptance of bedding and will check the tension in 10 % of the bolts using a calibrated torque wrench. Bolts are to be torqued to 100-300 ft-lbs. A wrench should be available from the Contractor.

For sample inspectors diary entries ref page 94.

Measurement and Payment

Final quantity for payment will be lump sum and will be entered in the Final Quantity Book, signed and dated. Reference will be made to notes in the Project Diary that document inspection and acceptance of bedding and the checking of bolt tension. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

There is no separate payment for excavation. Sections 206.01 (a) and 206.04(a) of the Specifications state that payment for excavation is incidental to the price bid for the structure. The quantity of granular borrow for payment will be that shown on the plans; reference is made to Section 203.18, second paragraph, of the Specifications.

510.5 Special Detour - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document and measure for payment the installation of a detour on the project.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress in the construction of the detour. The Inspector must be familiar with the contract Specifications, Section 510, to assure that the detour has been designed and constructed according to plan. Acceptance, maintenance, satisfactory removal, and clean-up of the site will be noted. Crew, equipment, and weather conditions will also be recorded.

Measurement and Payment.

Final quantity for payment will be lump sum and will be entered in the Final Quantity Book, signed, and dated. Reference will be made to notes of inspection, acceptance, and disposal recorded in the project records. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

Departmental policy is: If, during removal of the detour, the Contractor uses some of the excavation as permanent fill and if the use of this excavation does not cause a waste of usable excavation elsewhere on the project, the material in question will be measured and paid as common borrow.

511.5 Cofferdams - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document and measure the installation, maintenance, and removal of cofferdams.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep a record describing the inspection and acceptance Contractor's work and submittal, approval and adherence to their Water Pollution Control Plan. Type and size of cofferdam, type of pumping operations and adequacy of the sedimentation basin and sedimentation control will be noted.

For sample final quantity book entries ref page 76, inspectors diary entries ref page 93 & 94.

Measurement and Payment.

Final Quantity Book: Final quantity for payment, lump sum, will be entered in the Final Quantity Book, signed and dated. References will be made to Project Diary entries that document acceptance of the item. The item is not accepted until the removal and clean-up of the cofferdam(s), Sedimentation Basin(s), and pump(s) has been disposed in a manner satisfactory to the Resident. Payment is made regardless of the extent of work required to build the cofferdam. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

513.05 Slope Protection - Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress on this item. Preparation for placing concrete or crushed stone as called for on the plans, i.e., setting grades, excavating as necessary, compacting the slope, as well as crew, equipment and weather will be recorded.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book and referenced to field measurements or plan dimensions. Measurements and calculations will be entered in the Construction Book, signed and dated. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

515.5 Protective Coating for Concrete, Surfaces - Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will record the Contractor's work activities on this item such as surface preparation and condition before applications, note the name of manufacturers material being used, verification of the material with the Departments Approved Product list, application rate of each coat, and notes of inspection and acceptance, crew, equipment, time of each application and weather conditions will also be documented.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be by the square meter or lump sum. Total units will be computed from field measurements or from dimensions scaled from the plans. Measurements, dimensions, and calculations will be entered in the Construction Book and the total transferred to the Final Quantity Book. Lump sum will be entered directly in the Final Quantity Book.

Final quantity for payment will be signed and dated. References will be made to measurements, calculations, and notes of inspection and final acceptance. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

518.5 Rehabilitation of Structural Concrete - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's activities on this item; crew, equipment, weather conditions, location of work, i.e., which lane and which span if appropriate, will be recorded. Also to be documented are: name brand of patching material, bonding grout, and verification of the material with the Departments Approved Product list.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be determined from field measurements recorded in the Construction Book, signed and dated. Rehabilitation of Structural Concrete can involve one or a combination of three items: above re-steel, to re- steel, or below re-steel. If these items overlap in area, the item involving the largest surface area should be measured first and should be all encompassing, i.e., include the other items. These other items should then be measured after and deducted from the largest area. This method of measurement will avoid confusion and result in greater accuracy.

The final quantity will be entered in the Final Quantity Book and referred to field measurements in the Construction Book. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

520.5 Expansion Devices. Non-Modular- Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will make notes regarding: type of seal used, whether gland or compression, manufacturer's name, preparation of surface areas prior to installation, name of lubricant or sealant, and other Specifications requirements. Crew, equipment, weather conditions and temperatures will also be recorded.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book by the unit. Reference will be made to appropriate Diary entries that document inspection and acceptance. **All calculations and data entries must be signed, dated and checked; the checker must sign and date their entries.**

523.5 Pot Bearings - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will inspect and note approval of : 1) when the bearings have been delivered to the site and properly stored 2) when the bearing area has been prepared; 3) when the holes are drilled and the anchor bolts grouted in place 3) note the manufactures name and verification of grout on the Department Approved product list 3) when the preformed pads, plates, and bearings are set; and 4) when the temperature adjustments have been made and the sole plates are welded to the girders. Any or all of these steps may be combined along with a final acceptance of the work.

Approved shop drawings, shop inspection reports and test results will be forwarded to the Resident by the Fabrication Engineer in advance of delivery of the bearing assemblies to the site.

Measurement and Payment.

Final Quantity Book: Final quantity for payment bid and measured by the unit for each assembly will be entered in the Final Quantity Book. References will be made to notes of inspection and acceptance of seating areas and test results for the grout. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

525.5 Granite Masonry - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Dairy/Daily Report: The Resident or Inspector will note inspection and acceptance of granite stones, anchors, mortar, and caulking material. He/she will also inspect and note the Contractor is preparing the areas prior to setting the stones.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be calculated from field measurements or plan dimensions recorded in the Construction Book. Final quantity will be entered in the Final Quantity Book, signed, dated, and referred to notes of inspection and acceptance in the Project Diary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

526.5 Concrete Barrier - Field Documentation Measurement and Payment

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will note when the type of barrier installed, the inspection and acceptance of forms and re-steel. Sometimes this item is pre-cast. In this situation, refer to the inspection reports written by the Inspector at the plant at the time the barriers were cast. When it is necessary to reset, a note of a spot check of the dimensions for plan conformity and will also inspect for location as shown in the traffic control plan or other contract documents.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be lump sum or by the meter.

If the Temporary Concrete Barrier is measured and paid by the linear foot, measure the total length acceptable and enter it directly in the Final Quantity Book. If the item is measured and paid Lump Sum, enter the "Lump Sum" in the Final Quantity Book.

Permanent Concrete Barrier Type II, IIIa, and IIIb will be measured for payment by Lump Sum complete in place and entered directly in the Final Quantity Book.

Permanent Transition Concrete Barrier will be measured by each barrier connecting bridge rail to guardrail complete in place and entered directly in the Inspectors Daily Report or the Final Quantity Book.

The final figure will be entered in the Final Quantity Book, signed, dated, and referenced to Diary entries for inspection and acceptance and to field measurements recorded in the Construction Book if the item is measured by the unit. **All calculations and data entries will be signed, date, and checked; the checker will sign and date their work.**

Division 600 – Miscellaneous Construction

603.5 Pipe Culverts and Storm Drains

604.5 Manholes and Catch Basins

605.5 Underdrain

Field Documentation

Drainage Book, Construction Book: The Resident or Inspector will keep drainage installation notes in the Drainage Book if the drainage is extensive, or in a Construction Book. If the drainage is a minor item in the contract. Section 901.3 - Field Books in Division 900, of this Manual describes in more detail the contents of these fieldbooks.

The Resident or Inspector should note the inspection of the material as it arrives on the project to insure that the material meets specifications, fits the application and is free of damage from delivery. The installation notes should include the inspection of line and location, grade, special connections, bedding & backfill material and compactive effort.

The Resident or Inspector will note the placement of any excavated material that is not used for backfilling. Excavated material should not be wasted unless there is no possible use for it on the project.

For sample project diary entries ref page 63 and for inspectors diary entries ref page 90 & 91.

Measurement and Payment

Excavation to install drainage is incidental to the item except for rock and excavation “below grade”, defined in the Specifications. If a boulder or a concrete obstruction measuring two cubic meters or more is encountered in the excavation, that portion within the limits of the trench is paid as structural rock and the portion outside the limits is paid as common rock excavation. Portions within and outside the trench limits can be estimated in fractions, example “ 1/2 boulder outside trench”.

In a “full construction” area, if a portion of the boulder or concrete is above subgrade, that quantity will be paid as rock excavation and deducted from common excavation.

Underdrain special connections (elbows, wyes or tees) will be counted and 3 feet added per connection to the overall length of the run of pipe.

After acceptance of the catch basin or manhole, the height from floor to top of grate should be measured and recorded for final payment. Units up 2.5 meters [8 ft] will be 1 each. One fifth of a unit [one eighth of a unit] will be added for each additional 0.5 meters [1 ft] over 2.5 meters [8 ft] measured to the nearest 0.5 meters [1 ft]. Rebuild, alter and adjust items are measured as 1 each.

Section 206.5 in Division 200 of this Manual further describes structural excavation for drainage.

Final Quantity Book: Final quantity for payment will be by the linear measurement. The final figure will be entered in the Final Quantity Book, signed, dated, and referenced to Diary entries for inspection and acceptance and to field measurements recorded in the Construction Book if the item is measured by the unit.

All calculations and data entries will be signed, date, and checked; the checker will sign and date their work.

606.5 Guard Rail - Field Documentation. Measurement. and Payment.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, Guardrail Book: The Resident or Inspector will document the Contractor's progress on guard rail items. If guardrail work on the project is extensive and if several items are involved, for example: remove, modify, and reset, or adjust, or remove and reset, the Resident should set up a "Guardrail Book". Each run of guardrail to be worked on will be entered in this book primarily by location, i.e., station to station, left or right, and further identified by type of work to be done, whether remove, modify, and reset, or adjust, etc. As a run is completed and accepted, it will be so noted by the Inspector and dated.

All of the above documentation can be entered in the Construction Book if guardrail is not a major item in the contract.

Measurement and Payment

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to source documentation in the Guardrail Book, or in the Construction Book for lesser quantities.

Final quantities will be field measured or figured from station to station. **All calculations and data entries must be signed, dated, and checked; the checker must sign their entries.**

609.5 Curbing- Field Documentation. Measurement. and Payment.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, or Construction Book: The Resident or Inspector will note the Contractor's progress on these items; approximate station to station limits of work, crew, equipment will be recorded and notes of inspection and acceptance.

Notes of inspection will include, in the case of vertical curbing, the condition of the curbing when it arrives on the project to insure size and tolerance specification. Notes will also include the bedding and backfill material and line and grade.

Field measurements will be entered directly in the Final Quantity Book or in the Construction Book after the curb is complete, accepted and installed. If the curbing is extensive, the Resident should set up a "Curb Book" or at least dedicate a part of the Construction Book before the Contractor begins work. The location of each item of curb, i.e., "new", "reset", or "circular", and terminal, should be identified by sketches, station to station limits, left or right shall be noted.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to measurements.

For sample project diary entries ref page 64.

Measurement and Payment

No separate payment is made for excavation to install curb, whether new or reset. Excavation is incidental to the curb item or to roadway excavation. There is no payment to remove existing curb; only curb that is reset is measured for payment. Removal of existing curb that is not used is incidental to other items in the contract.

All calculations and data entries will be signed, dated, and checked; the checker must sign and date their work.

610.5 Stone Fill. Rip Rap, Blanket. and Stone Ditch Protection.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, Construction Book: The Resident or Inspector will make notes documenting progress of work on these items. They will record source of material, whether rock from within the excavation limits on the project, pit tailings, or rock quarry.

Measurements, sketches, and computations will be recorded in the Construction Book or directly in the Final Quantity Book.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to measurements and calculations. Quantities will be determined from surface area measurements to limits authorized by the Resident and to depths shown on the plans.

If riprap or stone fill is placed under water or on rough, irregular ground as required by the Resident or called for on the plans, quantity for payment can be measured by delivery slip with no reduction in volume. Reference is made to Section 610.05 of the Specifications.

Measurement and Payment

If the source of material is rock excavation, there will be no deduction from borrow, even though rock excavation is designated for use in the embankment, i.e., even though the project is a "borrow" job. Specifications, Division 100, Section 104.3.13 allows the use of ledge for items designated under this Section without deduction from borrow.

There will be no payment for excavation beyond the face of riprap, stone ditch protection, and stone blanket; only the excavation from original ground to face of the finished slope is allowed, i.e., excavation is incidental to riprap where rock is actually placed. More detailed explanation is given in Section 610 of the Specifications.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

615.5 Loam. 616.5 Sod. 618.5 Seed. 619.5 Mulch - Field Documentation. Measurement. and Payment.

These Sections describe the recordkeeping necessary to document and measure for payment loam, sod, seed, and mulch placed on the project.

Field Documentation.

Project Diary, Inspector's diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's loam, sod, seed, and mulch operations. They will record location of areas worked, personnel, equipment, and weather conditions. Depth of loam will be spot checked and recorded; loading of the hydroseeder with seed, lime, fertilizer, and mulch will also be documented.

Contract Specifications require that, at the Resident's directive, a second seeding be applied within 60 calendar days of the first seeding at the Contractor's expense if there is no acceptable growth of grass at the first seeding. The Resident must notify the Contractor before the end of the 60-day period for the Specifications requirements to remain valid. Reference is made to seed Specifications in the Contract Book for further clarification.

Measurement and Payment.

Final quantity for payment will be plan quantity or the quantity determined from measurements.

Plan Quantity. Specifications state that final payment for seed and mulch will be based on the quantities shown in the Schedule of Items if estimated areas agree within 15 percent of actual areas. A review and check of the Engineer's Estimate for reasonableness is an acceptable way to verify the quantity shown in the Schedule of Items. The plan quantity will be adjusted, upward or downward, if changes are made in the field.

Measurements. If the plan quantity is inaccurately figured or has no basis, i.e., is a "throw in" amount, quantities of seed and mulch will be determined from field measurements or from dimensions scaled off the plans.

The accuracy and frequency of measurements will depend on the project. On a rural overlay job, station-to-station limits and typical widths scaled off the plans or field measured are acceptable. On an urban job, areas will be divided into common shapes and field measured by length and width.

Loam and sod will be field measured. Field measurements and scaled measurements will be entered in the Construction Book, signed, and dated. Final pay quantity will be entered in the Final Quantity Book and labeled as such, signed and dated; references will be made to source documentation such as measurements and loading of the hydroseeder. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

626.5 Foundations, Conduit, and Junction Boxes for Highway Signing, Lighting, and Signals - Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Sign Book: The Resident or Inspector will keep notes regarding the Contractor's progress of work on the installation of foundations, poles, signs, lights, and traffic signals. The Resident or Inspector will document inspection and approval of forms, re-steel or steel wire mesh, anchor rods, and conduit in the foundation units.

The Resident or Inspector should keep a log of foundations installed, lengths of conduit buried, junction boxes sign locations, signal support poles and light pole foundations and documented in an Inspectors Diary or Construction book

If the project is primarily a signing or lighting job, the Resident should set up a "Sign Book" before the Contractor begins work. Signs will be identified in this book by location. The Resident or Inspector will note type of sign required and will record when the foundation is placed, when the poles, signs and lights are erected, and length of conduit and wiring installed. As noted above, inspection and acceptance of forms, re-steel, anchor rods, and conduits will be recorded; other pertinent information will be noted as required.

Measurement and Payment.

Final Quantity Book: Final quantity for foundations, junction boxes, conduit, and wiring will be entered under the appropriate items in the Final Quantity Book. Reference will be made to field counts or field measurements. The Sign Book can be eliminated if signing and lighting are not a major portion of the contract; measurements and documentation can be entered directly in the Final Quantity Book or in the Construction Book. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

629.5 Hand Labor 631.5 Equipment Rental Field Documentation. Measurement. and Payment.

Field Documentation.

Daily Report of Labor and Equipment Rental: The Resident will use this form to document hours for payment. Approval for hourly work, if not bid items, will be in writing by Work Order, and verbally by the Resident if bid items are involved. A detailed explanation of the work performed, inspected and accepted, and reference to the pertinent work order or "authorization by the Resident" should be noted in the Remarks section of the Report.

For sample project diary entries ref page 63, for final quantity book entries ref page 77, for inspectors diary entries ref page 90 & 91, and for a sample DREW from ref page 98

Measurement and Payment.

Whereas payment for hourly work often is extra and unforeseen and therefore authorized by work order, the Resident should refer to Division 100 of this Manual and the Specifications for explanation of price determination for labor and equipment.

Section 109 of this Manual further explains the circumstances under which a Work Order is required.

Specifications, Section 629, allow payment for overtime labor under the following circumstances:

- A. When the Resident requires the work to be done during the Contractor's normal overtime hours.
- B.. When the Resident directs the Contractor to do the work within a limited period of time and overtime is necessary to complete the work.
- C. When the work is of an emergency nature and overtime is required.

Final Quantity Book: Final quantities for payment will be entered under the appropriate hourly items as bid, and will be signed, dated and referred to Daily Reports of Labor and Equipment Rental.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Division 900 – Project Record and Closeout

This Division explains how the Resident is to prepare project records for close-out and final payment.

<u>Section</u>	<u>Title</u>
901	Preparation of Project Records
902	Review, Close-out, Final Payment

SECTION 901 - PREPARATION OF PROJECT RECORDS

901.1 General This Section describes the requirements for preparation of the project records by the Resident for final review. Field record-keeping and testing procedures for the individual pay items are explained in the appropriate sections of this Manual.

Project Records. Project records are grouped as follows:

<u>Section</u>	<u>Title</u>
901.2	Project Diary
901.3	Final Quantity Book
901.4	Construction Book
901.5	Drainage Book
901.6	Inspectors Diary
901.7	Final Quantity Computation Book
901.8	Testing File
901.9	Miscellaneous Records
901.10	Responsibility of the Checker

901.2 Contents of a Project Diary

Every job must have a Project Diary, or, in the case of Field Manager, a Daily Diary or a combination Daily Diary and Inspector's Daily Report. The Project Diary is intended to give the reader a general accounting of the Contractor's and subcontractors' day by day activities such as: pay items worked and ,locations, source and disposition of excavation, borrow, gravel, and pavement grindings, All Directives given to the Contractor and non-routine matters must be recorded as well. Examples are: Traffic Accidents, the Contractor adherence to traffic maintenance and erosion control, disregarding contract Specifications, not staffing the job appropriately to complete work within required time limits, and other issues that could result in contractor claims. Matters dealing with town officials, utilities, developers, and other abutters should also be recorded. Information recorded in the Project Diary/Daily Diary should be factual and pertinent information; personal opinions and speculative remarks should not be included.

Examples of a project Diary template and typical boilerplate entries are located in Appendix A pgs 89 through 94.

901.3 Contents of a Final Quantity Book

Final Quantity Book/Item History to Date: The Final Quantity Book, or Item History to Date if the job is set up using Field Manager, is the mainspring of the project records. Every bid item originally in the contract and all

work orders involving additional payment must be entered in this book; no job can be paid off without it.

Funding of a contract is sometimes divided into several funding sources, which usually result in pay items being grouped under different categories and PINs within the contract. The Final Quantity Book must be organized to reflect the different categories and pin numbers. PINs and categories will show on the first progress estimate, but if the Resident needs this information before the first estimate is issued, the Contracts Section will provide it.

A reference trail from the final pay quantity to the original documentation, whether it is notes of inspection and acceptance, measurements, or computations, must always be provided. It is suggested that the Resident and their inspectors enter original documentation and calculations to the extent feasible, directly in the Final Quantity Book

Urban full construction or reconstruction projects usually involve the town, sewer/water districts or other utilities. A formal agreement called a Municipal Agreement or a City- State Agreement drawn up between the parties will stipulate payment responsibilities and other contractual responsibilities. These agreements will frequently make the Town or the Utility District liable for a share of the project cost. The Resident should have a copy of these agreements; there may be several and they are available from the Project Manager. Items involved will normally show as a category in the progress estimate, but if not, they still need to be entered as a separate entity in the Final Quantity Book.

The Final Quantity Book/Item History to Date will have no more than one item per page. Item number, description, and estimated quantity will be entered at the top of the page. Final pay quantity will be entered at the bottom and so labeled. **All entries in the Final Quantity Book must be signed, dated, and checked; the checker must sign and date each entry as well. All final quantities in the Item History to Date must also be signed, dated, and checked, and the checker must sign and date the entries. Signatures in the Item History to Date may be signed manually or an electronic signature can be used.**

Examples of Final Book entries are located in Appendix A pgs 65 through 79.

901.4 Contents of a Construction Book

Construction Book: This book is a catch-all; whether the Resident uses Field Manager or the conventional method of keeping project records, i.e., field books, a "construction book" is handy to have and usually necessary. Complex field measurements, field data, or sketches that must be recorded before that work is buried and cannot be easily recorded in the Final Quantity Book/Item History to Date can be entered in the Construction Book.

Typically, measurements for riprap, loam, seed, mulch, undercuts, top of ledge elevations, boulders, gravel used for traffic maintenance, grade checks on concrete forms and drainage systems, and layout in general will be entered in the Construction Book.

One form of a Construction book is referred to as a Grade Check Book. On a large, full construction project a grade check book should be set up prior to the work being done. This book will provide the Inspector with a handy tool to use for checking subgrade, top of gravel ("fine-grading"), ditches and backslopes. A copy may be given to the Contractor's grade foreman for them to use. The Contractor's foreman is in effect performing a Quality Control activity and the Department's Inspector is performing a Quality Assurance activity by checking, at random, the Contractor's grading accuracy.

Examples of a Construction Book entries are located in Appendix a pgs 80 through 88.

Examples of a Grade Check Book entries are located in Appendix a pgs 81 and 83 .

901.5 Contents of a Drainage Book

Drainage Book: If a job has a large quantity of drainage, such as on a complex urban project, documentation of drainage installations should be entered in a separate book called a Drainage Book. This book should be organized before the work is done; each run of pipe and each catch basin or manhole would have its own page or pages.

As the work progresses, inspector's notes and measurements would be entered under the appropriate run: length of pipe and catch basins installed, gravel used for traffic maintenance, undercutting and bedding material used, ledge removed, riprap at pipe inlets or outlets, or utilities encountered, could be part of the daily entries. Quantities for payment would then be summarized in this book and transferred into the Final Quantity Book/Item History to Date.

Examples of Drainage Book entries are located in Appendix a pgs 84, 86, 90 & 91.

901.6 Contents of an Inspectors Diary

Inspector's Diary or Inspector's Daily Report: If a job is staffed by more than one inspector, the Resident may want the inspectors to keep diaries. This diary would contain the same boilerplate information as the Project Diary but would have a more detailed accounting of the Contractor's activities and progress of work. The Inspector's observation notes and some measurements may also be recorded. Again, only pertinent and factual information should be included; no personal opinions or speculative statements should be included.

Examples of an Inspectors Diary entries are located in Appendix a pgs 89 through 94.

901.7 Contents of a Final Quantity Computations Book.

This book contains all computations that support pay quantities and that are done on 8 ½ by 11 sheets or other loose sheets. These computations may be done manually or may be computer generated. Whether the Resident uses the conventional paper method or the software program Field Manager, a Final Quantity Computations Book will be needed, as necessary. Dimensions, measurements, and computer data used in the computations must be referenced to source, whether it is plans or field measurements. **All calculations and data entries must be signed, dated, and checked; the checker must also sign and date all calculations and data entries.**

Computation sheets will be filed by pay item, beginning with the lowest numbered. Example: Item 201 - Clearing. A summary sheet will precede the computations for each pay item. Totals shown on each summary sheet will be transferred to the appropriate pay item in the Final Quantity Book. The pages of each item should be numbered consecutively. Computation sheets will be bound together in a red binder, titled in one inch lettering: Project Number, Project Identification Number (PIN), Town, and Final Quantity Computations Book.

Daily Reports of Hourly Work and Flagger Reports should be filed in the Final Quantity Computations Book, located as items 629-631, and item 652, respectively. Following the item computation sheets is a copy of all Extra Work Orders, and Resident's Work Orders. A list of plotting rolls and plans, and a list of field books is also required. Index tabs will be used to locate each pay item or list.

901.8 Content of the Testing File.

The Minimum Testing Requirements, also known as the "Minimums", specify the frequencies and types of tests to be taken of materials used on the project. The Minimums are determined by the Materials Section in Bangor, and are available at the following network: Network Neighborhood/DOTBGR/Shared/Minimums. General testing requirements will be found in each Section of this Manual. The Minimums may vary from these general testing requirements to meet the needs of each particular project. The Northern Area Acceptance Testing Supervisor issues the "Minimums" for all projects; he will e-mail the requirements to the Resident. Alternately, the "Minimums" are available at the above noted address.

Exhibit 20 is a sample set of Minimum Testing Requirements.

The Resident is to use the list of Minimum Testing Requirements as a guide to test job materials. The minimum number of any particular test should not be less than the listed requirement without justifiable reason. Changes are to be explained by memo filed with the item involved. The most frequently seen change is a decrease in the number of densities required. However, due to changes in material sources, borderline materials, or work being done in several small sections (mostly on urban projects), more tests than the minimum may be necessary. The Resident must use his discretion to determine when more tests are necessary. The Resident must also explain the outcome of failing materials, i.e., removed and replaced, or accepted on the basis of substantial conformance.

If a contract contains Acceptance Methods that allow pay adjustments for hot bituminous pavement and for concrete, the Contractor's QC test data and the Engineer's Q A test data will be filed together for each day such testing is performed under the pertinent item. Pay adjustment computations will also be filed with the test

data. These calculations will be done by the Resident and checked by someone knowledgeable in the calculation of pay adjustments.. The Contractor should be given the opportunity to review the adjustments before the Resident submits the project records to the Contracts Section for review.

The Testing File documents the quality of materials incorporated into the project. Reports and related data will be filed chronologically with the most recent on top and will be grouped and tabbed by pay item in the same order as shown on the list of Minimum Testing Requirements, a copy of which must be included in the front. The Testing File will be bound by a black acco-press binder and with the following information on white labels: Testing File, Project No., PIN, and Town. Index tabs will be used to separate and identify the items.

901.9 Miscellaneous Project Records

Project files consist of job records exclusive of final quantity computations, field books, and test data, turned in to the Contracts Section at the completion of the project. The following types of records should be grouped and submitted in manila envelopes: general correspondence, right-of-way records, utility records, submittals (shop drawings), permits, payrolls, payroll interviews, delivery slips, and cover slips. The envelopes should be labeled with the project number, town, and contents. Work orders, flagger reports, and daily work reports become part of the Final Quantity Computations Testing File. The preliminary engineering file, known also as "PE" file, the engineer's estimate and one copy of the bid book (Special Provisions) should also be turned in with the project records. Extra copies of the proposal book, delivery slips for hot mix asphalt, and progress estimates, vouchers, and estimate computations may be discarded before the project records are submitted for final review. The most recent progress estimate must be kept, as it will be used to prepare the Final Quantity Estimate during final review.

901.10 Responsibility of the Checker

All entries to the project records that generate payment to the contractor must be checked. The responsibility of the checker is to;

1. Check any and all quantities from Final Quantity book or Item History to date back to the original source measurements.

Example: Item 203.21 Rock Excavation

The checker will start with the Final Quantity book or Item History to date and locate that the reference(s) back to the original source measurement(s), usually a construction book or Inspectors Daily Report, and check the calculations and insure the quantity was deducted from common excavation if the rock was located above subgrade.

2. Check to insure that all required references to any notes of inspection and acceptance accompany the quantities that are to be paid.

Example: Item 304.10 Aggregate Subbase Course-Gravel

The checker will start with the Final Quantity book or Item History to date and insure that references are made from any pay quantity to source of material being placed, station to station limits, compactive effort and number and depths of lifts and finegrade checks.

3. Check to insure that the specifications were applied correctly.

Example: Item 206.61 Structural Earth Excavation – Drainage and Minor Structures Below Grade

The checker will insure that the quantity for payment doesn't include the first foot of excavation.

SECTION 902 – Review, Closeout and Final Payment

This Section describes the procedure the Resident is to follow when project records are submitted to the Project Review Unit of the Contracts Section for final review and close-out of the project.

902.1 General

The purpose of the final review is to assure that both the quality and quantity of materials and work performed by the Contractor are tested and documented according to Departmental policy and procedure.

After the job records have been assembled as described in Section 901, the Resident will contact the Project Review Unit and make an appointment to submit the records for final review. This should take place within 60 calendar days of physical completion of the project. Physical completion is described in Section 107.9, Division 100, of the Specifications.

902.2 Review

The Resident and someone in the Contracts Section, the “Reviewer”, will go over the project records together to assure that the final quantities for payment are substantiated by field measurements and other original documentation as required. A project review checklist, copy following, is to be used as a guide. Also at this time, the Testing File will be reviewed to verify that materials have been tested according to the list of Minimum Testing Requirements and Departmental policy.

Pages 99 through 102 are sample final review checklists and page 103 is a sample on-site review checklist.

Work and materials that are not documented and tested in accordance with Departmental policy may require additional tests, measurements, or field documentation, or may be shown as “non-participating” on the Final Quantity Estimate, that is, ineligible for Federal funds.

As part of the review, the Final Quantity Estimate will be made out and labeled as such used to make progress payments, the Resident should contact the Project Review Unit, prior to submitting records for review, so that a paper copy of the most recent progress estimate can be prepared. This estimate will then be used to make out the Final Quantity Estimate. Every project must have a paper copy of the Final Quantity Estimate as part of the final contract documents.

Quantities to be billed to Towns, Sewer & Water Districts, Utility Companies, Developers, and Abutters are to be summarized and forwarded to the Bureau of Finance & Administration. Municipal Agreements, discussed under section 901.3 are to be reviewed and billings done accordingly. The Reviewer and the Resident will prepare together, at the time of final review, the bills to be sent; the Reviewer will present these bills to the Bureau of Finance and Administration.

It is sometimes the case that it is necessary to go back to the job to do repair work or to make changes after the project has been completed and the Contractor has been released from further obligations. By FHW A agreement, work done after project completion that involves a change in design is participating. Work that consists of restoring to original condition as designed would be considered maintenance work and not eligible for Federal Funds.

It may be done by the original Contractor or a Contractor on an active project nearby, by Town forces, or Maintenance Division forces, depending upon costs and the availability of crews and equipment. Transfer of costs from the active project to the project involved, payments to the Town, and transfer of funds to the Maintenance Division will be done by the Contracts Section with the assistance of the Resident. A work order will be required to document costs and payment procedure.

In addition to the Final Quantity Estimate, the following final documents are also required:

Time Charge Report: This report shows the required contract completion date and actual completion date. The Resident will discuss time overruns with their supervisor and document resolution of such overrun by a memo to the Project Review Unit, whether it is a time extension or assessment of liquidated damages. A meeting with the Contractor may be required in the process. Exhibit 25 is a sample Time Charge Report.

Right-of-Way Encroachment Memo: This memo lists kind and location of encroachments within the right-of-way, only if new right-of-way is taken. Pre-existing encroachments need not be reported. Page 97 is a sample

Right-of-Way Encroachment memo.

Contractor Evaluation: This form is an evaluation of the Contractor's performance during construction of the project. It must be completed and signed by the Resident and co-signed by the Contractor's Superintendent. Page 105 is a sample Contractor Evaluation packet.

Explanation of Overruns and Underruns: Written explanations of overruns and underruns are no longer required when final records are submitted for review. Significant quantity overruns and underruns will be discussed at the final team meeting. The final team meeting will be coordinated by the Resident With the Project Manager. Minutes of the meeting will be written by the Resident and distributed to team members and functional managers.

The Resident should complete the above three documents prior to final review; these documents are available from the Contracts Section in Augusta. The Final Quantity Estimate will be made out during the final review process.

Two brief reports, in the form of memos to the project file and usually one page each in length, will be written by the Reviewer. One memo addresses final quantities and the other addresses testing of materials. The "Final Quantities" memo states that project records have been reviewed and properly substantiate quantities of work incorporated into the job, with exceptions if any. The "Testing Memo" states that the testing records have been reviewed and properly substantiate the quality of materials incorporated into the project, and again, exceptions are noted, if any. Secondary documentation and explanations are made part of the memos when there are exceptions.

It may be the situation that, at the completion of final review, there remains contractor issues that are unresolved, usually: potential liquidated damages, disagreement over pay factors for hot-mix asphalt or concrete, or contractor claims. The Resident likely will be called on to help settle these items by meeting in Augusta with their Supervisors and with the Contractor; this will be done before the Project Review Unit makes final payment and the project is closed out.

902.3 Close-Out and Final Payment.

A project cannot be closed out until all outstanding issues are resolved on the project and final payment is made.

Following the final review, the Contracts Section will send a copy of final quantities to the Contractor with a cover letter stating that the final quantities are included and what final documents are to be submitted and issues remaining to be settled before final payment can be made. Contractor's final documents are:

1. Certificate of Materials, Section 700 - Specifications.
2. "Buy America" Statement, Appendix A, Section 3, Buy America, Div 100, Specifications.
3. Letter "All Bills Paid", Subs 1 0 1.2, Definitions-Closeout Documentation, Div-100, Specifications.
4. FHWA Form "PR-47" on projects with full Federal oversight over \$1 million in estimated cost - Division 100,
5. A statement of "Agreement with Final Quantities"

Section 101.2 - Closeout Documentation of Division 100, Specifications, discusses the above listed documents. Contractor Evaluation Forms, and PR-47 Forms are available from the Contracts Section.

Contractors will not generally submit the "All Bills Paid" letter until they have seen the Final Quantity Estimate and have settled all items of contention with the Department, liquidated damages being the most frequent one.

A portion of the monies withheld from the Contractor (the "retent") may be paid at the time of final review or prior to it, depending on the status of the job. If there are no liquidated damages, no claims or disagreements with quantities, or no remaining work to be done in the field (such as clean-up), most of the retent may be paid. A fixed amount will be held pending the receipt of final documents.

After the Contractor submits the final documents to the Project Review Unit and all issues have been settled, final payment is made. This payment includes final adjustments, and also the remainder of the retent. When the "Final Estimate" is paid, the project records are filed with the Program. The Bureau of Finance and Administration will continue the close-out process by issuing the last check to the Contractor, and working with the FHW A for reimbursement for the Federal share of the project.

APPENDIX A

SAMPLE DOCUMENTATION

THE FOLLOWING IS A LIST OF DUTIES OF THE PROJECT RESIDENT:

- REVIEW THE WAGE SCHEDULE BEFORE THE PRE-CONSTRUCTION MEETING.
- IDENTIFY MISSING WAGE RATES
- ENSURE THE PRIME CONTRACTOR HAS SUBMITTED REQUESTS FOR ALL THE MISSING WAGE RATES TO THE CIVIL RIGHTS OFFICE
SHERRY.TOMPKINS@MAINE.GOV FORMS ARE AVAILABLE ON ELATIONS.
- REQUEST THE DBE UTILIZATION SHEET FROM
SHERRY.TOMPKINS@MAINE.GOV
- MAKE SURE YOU HAVE SUBCONTRACTOR COMPLIANCE PACKETS FROM
JEAN.TUKEY@MAINE.GOV
- CONTACT ANGELA.LATNO@MAINE.GOV TO ATTAIN LOGIN AND PASSWORD TO THE [HTTPS://WWW.ELATIONSYS.COM](https://www.elationsys.com) WEBSITE TO BE ABLE TO REVIEW THE PAYROLL FROM THE GENERAL AND SUBCONTRACTORS.
- THE ELATIONS SYSTEMS MANUAL CAN BE FOUND AT:
<http://www.maine.gov/mdot/contractors/publications/>
- CHECK THE CONTRACTORS BULLETIN BOARD FOR ACCURACY AND COMPLETENESS, REFERENCE THIS IN THE PROJECT DIARY
- START AND COMPLETE YOUR PAYROLL TRACKING SHEET WEEKLY
- REVIEW THE SUBMITTED PAYROLLS FOR APPROPRIATE CLASSIFICATIONS
- COMPLETE THE (CUF) COMMERCIALY USEFUL FUNCTION FORM FOR EACH DBE /WBE DURING THE PROJECT AND SUBMIT TO
SHERRY.TOMPKINS@MAINE.GOV
- **CONDUCT 2 PAYROLL INTERVIEWS EVERY 90 DAYS FOR THE PRIME CONTRACTOR AND EACH SUB THAT WORKS 5 OR MORE DAYS ON THE PROJECT DURING EACH 90 DAY PERIOD. Please enter payrolls into the Elations System.**
- FOR ANY UNRESOLVED PAYROLL ISSUES, CONTACT THE CIVIL RIGHTS OFFICE
SHERRY.TOMPKINS@MAINE.GOV
- FOR ELATIONS SOFTWARE ISSUES CONTACT ANGELA.LATNO@MAINE.GOV
- ON-THE-JOB TRAINING (OJT) AND CONTRACTOR COMPLIANCE QUESTIONS CONTACT: GIGI.OTTMAN-DEEVES@MAINE.GOV

DATE	DAY	WEATHER
MDOT:		
PERSONEL		
CONTRACTOR		
PERSONEL		
EQUIPMENT		
WORKING HOURS		
SUB CONTRACTOR		
PERSONEL		
EQUIPMENT		
WORKING HOURS		
VISITORS		
PROJECT ACTIVITIES		
<input type="checkbox"/>	ITEM NUMBER, LOCATION & LIABLE CONTR/SUB	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF ANY EXCAVATION	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF GRAVEL AND BORROW	
<input type="checkbox"/>	NON-ROUTINE ACTIVITIES	
	A: CONTRACTORS' NON ADHERANCE TO CONTRACT SPEC'S: MTC'D'S & SEWPC	
	B: MDOT DIRECTIVES GIVEN TO CONTRACTOR IE: C.O. RELOCATIONS, CHANGES IN DESIGN, UNDERCUTTING & REWORK.	
	C: CONTRACTOR IS INADEQUETLY STAFFING THE JOB FOR THE TYPE OF WORK	
	D: ANYTHING RELATED TO POTENTIAL CONTRACTOR CLAIMS	
	E: ANY DISCUSSIONS WITH TOWN OFFICIALS, UTILITIES, DEVELOPERS AND ABUTTERS	
	G: TRAFFIC ACCIDENTS & OTHER HAZARDS	
ENTERED BY : NAME & DATE		

6/12/2002	FRIDAY	SUNNY 80'S
MDOT:		
BILL BITTERMAN, RESIDENT		
BILLY BOB BENNET, INSPECTOR		
M&H:		
6:00AM TO 5:00 PM		
1 SUPT	1 COMPRESSOR	
5 WORKERS	2 TRUCKS	
2 LARGE EXC.	1 5 TON VIB ROLLER	
1 APE	1 CHAMPION GRADER	
1 D6 DOZER		
HASTINGS TREE REMOVAL SERVICES		
ITEMS 652.361 AND 656.75		
MTC'D AND SEWPC INSPECTED AND ACCEPTED FOR THE WEEK		
ITEM 201.23 SINGLE TREE		
HASTINGS CUT AND REMOVED SINGLE TREE AT THE CORNER OF PINE STREET AND RT 4		
ITEM 603.159	12" OPT III CULV PIPE	
INSTALLED 12" OPT I CULV PIPE AT STA 12+56 RT		
ITEM 604.097	6' B1-C CATCH BASIN	
INSTALLED AT STA 12+56 RT		
ITEM 631.2	STUMP CHIPPER	
HASTINGS USED STUMP CHIPPER TO GRIND 2 STUMPS		
M&H MULCHED ALL DISTURBED AREAS		
COMPLAINT FROM BILL SIMPSON , PROJ SUPT ABOUT DELAYS FROM UTILITIES NOT SHOWN ON PLANS AS WELL AS SLOW PRODUCTION. HE THEY WILL KEEP RECORDS FOR POSSIBLE CLAIM. HE HAS ALSO REQUESTED INFORMATION ON ALTERNATE WORK AT THE OTHER END OF THE PROJECT STA 42+50 TO 45+75		
ENTERED BY : BILL BITTERMAN 6-12-02		

6/16/02 MONDAY FAIR 60'S

3

MDOT: BILL BITTERMAN, RESIDENT
BILLY BOB BENNET, INSPECTOR

M&H: 6:00AM TO 5:00 PM
1 SUPT 1 COMPRESSOR
5 WORKERS 2 TRUCKS
2 LARGE EXC. 1 5 TON VIB ROLLER
1 APE 1 CHAMPION GRADER

ITEM 304.10, STA 3+00 TO 4+25

AFTER PLACING/COMPACTING LOWER LAYER OF ASC GRAVEL, THE SUBGRADE MATERIAL BEGAN TO PUMPING INTO THE LOWER ASC GRAVEL LIFT. THE RESIDENT DIRECTED THE CONTRACTOR TO EXCAVATE AND REMOVE THE CONTAMINATED GRAVEL. ROADWAY STABILIZATION GEOTEXTILE WAS THEN PLACED ON THE SUB-GRADE SURFACE BEFORE PLACING ASC GRAVEL. THIS WORK WILL BE PAID UNDER ITEM 203.20 COMMON EXC AND 304.10 ASC-GRAVEL. REF TO BOOK 4 PAGES 5 THROUGH 7 FOR FIELD MEASUREMENTS ROADWAY STABILIZATION GEOTEXTILE WILL BE PAID PER RESIDENTS WORK ORDER #1 (AMOCO 2006 INSTALLED)

THERE WAS AN ACCIDENT ON THE PROJECT TODAY AT STA 2+25 AT 10:00 AM +/- . VEHICLE NO 1 (FORD EXPLORER PLATE NO 4356 JJ) REAR-ENDED VEHICLE NO 2 (CHEVY S-10 PLATE NO 763784 I) WHICH WAS STOPPED FOR FLAGGER ED KNOWLES WITHIN THE WORK ZONE. THE ACCIDENT WAS INVESTIGATED BY JOEL RAMICH OF THE FARMINGTON POLICE DEPT. ALL SIGNS WERE UP AND TRAFFIC CONTROL DEVICES WERE SATISFACTORY. REFER TO CORRESPONDENCE FILE FOR A COPY OF THE POLICE/ACCIDENT REPORT COMPLETED ACCIDENT REPORT AND FORWARDED TO THE MDOT LEGAL DEPT.

ENTERED BY : BILL BITTERMAN 06-16-02

6/17/02 MONDAY FAIR 70'S

MDOT: BILL BITTERMAN, RESIDENT
BILLY BOB BENNET, INSPECTOR

M&H: 6:00AM TO 6:00 PM
1 SUPT 1 COMPRESSOR
5 WORKERS 2 TRUCKS
2 LARGE EXC. 1 5 TON VIB ROLLER

SUB: PIKE IND, 4 ROLLERS, 1 PAVER, 12 TRUCKS, 1 SERVICE TRUCK, 1 WATER TRUCK & 1 BOBCAT.

PERSONNEL: 1 SUPT, 1 FOREMAN, 7 SKILLED, 12 UNSKILLED, 2 LABORERS & 2 QC/QA WORKERS

ITEM 304.104

FINEGRADE COMPLETE AND ACCEPTED STA 22+00 TO 35+25

ITEM 403.207

PAVING OPERATIONS BEGAN AT STA 22+00 TO 35+25

CALL FROM BILL COBURN-FABRICATION INSPECTOR

RE: CONCRETE CURBING. BILL HAD SOME CONCERNS ABOUT THE PERMABILITY. HE WILL VIST GAGNE THEIR VEAZIE TOMORROW AND WILL E-MAIL ME THE RESULTS OF THE TEST IF THERE IS A PROBLEM, REFER TO CORRES. FILE FOR RECORD.

ITEM 211.20

STA 2+00 TO 5+00, EXCESS MATERIALS FROM INSLOPE WORK REMOVED AND TAKEN TO APPROVED WASTE AREA (SMITH PIT)

ITEM 203.20

STA 2+00 TO 12+00, PIKES RECLAIMER ON PROJECT, STA 2+00 TO STA 5+00 TO REMOVE PVMT IN FULL EXCAVATION AREA, LOADER PLACING MAT'L IN TRUCKS TO BE STOCKPILED ON SITE AND PLACED AS ASG AT A LATER DATE. TO BE PAID AS COMMON EXC AND ASG. RECLAIMED STA 5+00 TO 12+00, GRADED AND COMPACTED, TO BE PAID AS 307.

DENNY DOYLE, MDOT, ON SITE TO TEST 307 COMPACTION

ENTERED BY : BILL BITTERMAN 6-17-02

202.20 COMMON EXCAVATION 600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
15+00	21+00	600	600 ✓	BBB	37478
20+00	21+25	144.44 ✓	744.44 ✓		
16+25		68.67 ✓	813.11 ✓		
16+50		-1.46 ✓	811.65 ✓	BBB	
17+00	17+80	-11.59 ✓	800.06 ✓		
19+00	19+75	58.2	858.25		

FINAL PAY QUANTITY: 800.06 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

202.20 COMMON EXCAVATION

1

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 3 PG 2 FOR SUBGRADE CHECKS

BK 3 PG 1

BK 3 PG 1

DEDUCT ROCK EXC, BK 4 PG 3

DEDUCT ROCK EXC, BK 3 PG 6

BK 4 PG X



203.21 ROCK EXCAVATION

600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
17+50	17+80	11.59 ✓	11.59 ✓	BBB	8/20/2002
16+50		2.46 ✓	14.05 ✓	BBB	8/12/2002
21+25	22+20	14.6 ✓	28.65 ✓	BBB	8/12/2002

FINAL PAY QUANTITY: 24.64 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

202.20 COMMON EXCAVATION

2

REF

CONSTRUCTION BK 3 PG 6

INSP DIARY BK 4 PG 3

CONSTRUCTION BK 3 PG 10

203.25 GRANULAR BORROW 600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
30+00	32+00	275	275	BBB	37478
33+28 RT		21.43	276.43	BBB	
19+00	19+75	42.5	318.93		

FINAL PAY QUANTITY: 318.93 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 4 PG 2 MULTI PLATE BACKFILL COMPLETED TO PLANS & SPEC
BK 4 PG 2 FOR ADDITIONAL EXCAVATION (UNDERCUT)
BK 4 PG 2 MAINTENACE OF TRAFFIC

211.2 INSLOPE EXCAVATION 1500 FEET @ \$3.00/ft

STA	STA	LENGTH	ACC. LENGTH	ENT BY	DATE
2+00RT	3+25RT	125' ✓	125' ✓	BBB	6/20/2002
4+05FT	5+00RT	95' ✓	220' ✓	BBB	6/20/2002
5+40RT	6+00RT	60' ✓	280' ✓	BBB	6/20/2002
6+35RT	6+75RT	40' ✓	320' ✓	BBB	6/20/2002
8+25RT	9+50RT	125' ✓	445' ✓	BBB	6/21/2002
10+80RT	11+90RT	160' ✓	605' ✓	BBB	6/21/2002
1+00 LT	12+00 LT	435' ✓	1040' ✓	BBB	6/26/2002
21+50RT	22+50RT	100' ✓	1140' ✓	BBB	6/27/2002
23+25RT	24+50RT	125' ✓	1265' ✓	BBB	6/27/2002
25+35RT	25+55RT	25' ✓	1290' ✓	BBB	6/27/2002
26+50RT	26+75RT	25' ✓	1315' ✓	BBB	6/27/2002
27+75 RT	28+25RT	50' ✓	1365' ✓	BBB	6/27/2002
28+50RT	29+50RT	100' ✓	1465' ✓	BBB	6/27/2002
21+00LT	30+00LT	325' ✓	1790' ✓	BBB	7/1/2002

FINAL PAY QUANTITY: 1790 FT ✓

ENTERED BY : BILL BITTERMAN 11-08-02

✓ CHECKED BY: BWD1-2-03

REF.

DIRECT ENT.

completed accord to plan/spec, waste hauled to Smith's waste area



REF TO INSP DIARY #1 PAGE 5

DIRECT ENT.

completed accord to plan/spec, waste hauled to Ames waste area



REF TO INSP DIARY #1 PAGE 8

304.104 AGGREGATE SUBBASE COURSE GRAVEL-PLAN QTY

STA	STA	QTY	ACC. QTY	ENT BY	DATE
15+00	21+00	600	600	BBB	37489
20+00	21+25	69.44	669.44		

FINAL PAY QUANTITY: 669.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

600 CY @ \$16.00/CY

7

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 3 PG 4 THRU 16 FOR FINEGRADE CHECKS

ADDITION MATL USED IN DRIVES, REF INSP DIARY PG 22-32

307.32 FULL DEPTH RECYLED PAVEMENT (UNTREATED

STA	STA	AREA	ACC. LENGTH	ENT BY	DATE
30+50	58+75	7,525	27,525	BBB	

FINAL PAY QUANTITY: 27,525 SY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

27,525 SY @ \$4.00/SY

8

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

REF CONSTRUCTION BK 3, PG 10-12 FOR FINEGRADE CHECKS

403.208 HOT MIX ASPHALT, 12.5 MM					
COVER			ACCUM		ACCUM
SLIP NO	DATE	QTY	QTY	M.L.	M.L.
3456	8/4/2002	1,856.25	✓ 1,856.25	1,856.25	✓ 1,856.25
3457	8/5/2002	1,795.50	✓ 3,651.75	1,795.50	✓ 3,651.75
3458	8/6/2002	1,601.25	✓ 5,253.00	1,300.00	✓ 4,951.75
3460	8/7/2002	1,109.50	✓ 6,362.50		
3461	8/16/2002	1,649.25	✓ 8,011.75	1,649.25	✓ 6,601.00
3466	8/17/2002	1,780.50	✓ 9,792.25	1,540.50	✓ 8,141.50
3469	8/18/2002	963.75	✓ 10,756.00		
TOTALS			10756.50 ✓		8,141.50 ✓
3470	37487	230.50	** ✓		
FINAL PAY QUANTITY: 10,756.00 MG (PARTICIPATING)					
ENTERED BY : BILL BITTERMAN 11-08-02					
CHECKED BY: ABC 1-2-03 ✓					
FINAL PAY QUANTITY: 230.50 TONS ✓ (NON-PARTICIPATING)					
ENTERED BY : BILL BITTERMAN 11-08-02					
CHECKED BY: ABC 1-2-03 ✓					

10,850 MG TONS @ \$41.00/TON					600 CY @	9
SHLDR	ACCUM					
QTY	QTY	LOT NO	ENT BY	DATE		
		1	BBB	8/5/2002		
		1	BBB	8/6/2002		
301.25	✓ 301.25	✓ 1	BBB	8/7/2002	*	
1,109.50	✓ 1,410.75	✓ 1	BBB	8/8/2002		
		2	BBB	8/17/2002		
240.00	✓ 1,650.75	✓ 2	BBB	8/18/2002		
963.75	✓ 2614.50	✓ 2	BBB	8/19/2002		
	2614.50	✓				
* REF INSPECTORS DIARY BK 4 PAGE 23 FOR QTY BREAKDOWN						
** NON-PARTICIPATING MIX ON MAPLE LANE TO BE PAID BY TOWN OF FARMINGTON						

502.21 STRUCTURAL CONCRETE, ABUTMENTS AND

DATE PLACED	LOCATION	QTY (CY)	ACCUM QTY	ENT BY
5/17/2002	N. ABUTMENT FTG	18.35 ✓	18.35	BBB
5/19/2002	S. ABUTMENT BREASTWALL	8.03 ✓	26.38	BBB
6/2/2002	S. ABUTMENT FTG	17.39 ✓	43.77	BBB
6/4/2002	S. ABUTMENT BREASTWALL	8.41 ✓	52.18 ✓	BBB

FINAL PAY QUANTITY: 52.18 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

RETAINING WALLS. 250 CY @ \$525.00/CY

12

DATE	REF
	F.Q. COMP SECTION 502 FOR F.Q. CALCULATIONS
	PROJECT TESTING FILE SECTION 502
5/17/2002	BK 5 PG 10 FOR FORMS/RE-STEEL CHECKS
5/19/2002	BK 5 PG 10 FOR FORMS/RE-STEEL CHECKS
6/2/2002	BK 5 PG 11 FOR FORMS/RE-STEEL CHECKS
6/4/2002	BK 5 PG 11 FOR FORMS/RE-STEEL CHECKS

502.22 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING

DATE PLACED	LOCATION	QTY (CY)	ACCUM QTY	ENT BY
----------------	----------	-------------	--------------	-----------

5/2/2002	N. ABUTMENT FTG	9.56	9.56	BBB
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5/20/2002	S. ABUTMENT FTG	10.51	20.07	BBB
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FINAL PAY QUANTITY: 20.07 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

WALLS (PLACED UNDER WATER) \$325/CY

13

DATE	REF
------	-----

5/3/2002	DEL SLIP #5832, WASTED 2 CY, INSP. DIARY PG 12 FOR ELEV CHECKS
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5/21/2002	DEL SLIP #5832, WASTED 1.26 CY, INSP. DIARY PG 12 FOR ELEV CHECKS
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F.Q. COMP SECTION 502 FOR F.Q. CALCULATIONS

503.12 REINFORCING STEEL, FABRICATED AND DELIVERED

LOCATION	LBS	ACCUM LBS	ENT	DATE
N ABUT FTG	1563	1563	BBB	3/7/2003
N ABUT BRST WALL	2525	4088	↓	↓
N ABUT WEST WING	1375	5463		
N ABUT EAST WING	1375	6838		
S ABUT FTG	1563	8401		
S ABUT BRST WALL	2525	10926		
S ABUT WEST WING	1250	12176		
S ABUT EAST WING	1410	13586		

FINAL PAY QUANTITY: 13,536 lbs

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

13,536 LB @ \$0.50/LB

REF

BK 3 PAGE 7

BK 2 for notes of inspection and acceptance

BK 3 PAGE 8

BK 3 PAGE 9

BK 3 PAGE 10

BK 3 PAGE 11

BK 3 PAGE 12

BK 3 PAGE 12

BK 3 PAGE 12



509.12 STEEL STRUCTURAL PLATE PIPE ARCH

DATE

7/18/2002 PIPE DELIVERED ON PROJECT TODAY
AND FOUND TO BE FREE ANY DAMAGE DUE
TO DELIVERY.

7/23/2002 REMOVED EXISTING STEEL PIPE

7/25/2002 INSTALLED 1 STRUCTURAL STEEL PLATE ARCH
PER LINE, GRADE AND SPEC. AND IS ACCEPTED
AS OF THIS DAY.

FINAL PAY QUANTITY: 1 LUMP SUM

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

1 L.S. @ \$32,000

15

REF:

FOR NOTES OF INSPECTION REF INSP. DIARY PG 8-12

TORQUE CHECKS BK 4 PG 32

511.07 COFFERDAM

DATE INSTALLED	DATE REMOVED	ENT BY	DATE:
-------------------	-----------------	-----------	-------

7/19/2002		BBB	
-----------	--	-----	--

7/20/2002		BBB	
-----------	--	-----	--

	7/22/2002	BBB	
--	-----------	-----	--

FINAL PAY QUANTITY: 1 LS

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

1 LS @ \$11,000

16

REF

DOWNSTREAM COFFERDAM INSPECTED AND ACCEPTED,
INSP DIARY BK 4 PG 3

UPSTREAM COFFERDAM INPSECTED AND ACCEPTED,
INSP DIARY BK 4 PG 22

UPSTREAM/DOWNSTREAM COFFERDAM REMOVED TODAY AND
THIS ITEM IS COMPLETE.

REF INSP DIARY BK 4 PG 5-20 FOR NOTES OF INSPECTION

631.12 ALL PURPOSE EXCAVATOR (INCL OPERATOR)

DREW NO.	NO OF HRS	ACCUM HRS	ENT BY	DATE
1	2 ✓	2 ✓	BBB	7/1/2002
2	10 ✓	12 ✓	BBB	7/6/2002
3	3 ✓	15 ✓	BBB	7/16/2002
5	8 ✓	23 ✓	BBB	7/25/2002
6	10 ✓	33 ✓	BBB	8/5/2002
8	8 ✓	41 ✓	BBB	8/12/2002
TOTAL		41 ✓		

FINAL PAY QUANTITY: 41 HRS ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

20HRS @ 100.00/HR

REF

INSP DIARY BK4 PAGE 4

INSP DIARY BK 4 PAGE 12

INSP DIARY BK 4 PAGE 13

INSP DIARY BK 4 PAGE 22

INSP DIARY BK 4 PAGE 55, REF CONTRACT MOD #5

INSP DIARY BK 4 PAGE 56, REF CONTRACT MOD #5

652.33 DRUMS

DATE COUNTED	EA	REF	ENT BY	DATE
9-27-01	10	DIRECT ENT	BBB	9/27/2002
10-15-01	22		BBB	10/05/2002
10-30-01	22		BBB	10/10/2002
10-25-01	36		BBB	10/25/2002
11-05-01	66	BK 3 PGE XX ✓	BBB	11/5/2002
11-10-01	25	DIRECT ENT	BBB	11/20/2002
11-17-01	30	DIRECT ENT	BBB	12/5/2002

MAXIMUM AMOUNT = 66 DRUMS ✓

FINAL PAY QUANTITY: 66 EA ✓

ENTERED BY : BILL BITTERMAN 12-10-02

CHECKED BY: ABC 1-2-03 ✓

50 EA @ \$65.00

1

656.75 TEMP SOIL EROSION AND WATER POLLUTION

ACCEPTED	INSPECTED	WEEK ENDING
O.K.		8/8/2002
	O.K.	8/15/2002
	O.K.	8/22/2002
	O.K.	8/29/2002
	O.K.	9/6/2002
	REF TO REMARKS	9/10/2002
	REF TO REMARKS	9/11/2002
	O.K.	9/13/2002
	O.K.	9/20/2002

FINAL PAY QUANTITY: 1 LS OF \$20,000 ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

1 L.S. @ \$20,000

26

REMARKS
MIKE CLARK, OES, REVISED AND APPROVED SEWPCCP, PAY 10%

PAID 50%

- ✓ DEDCUT \$100 FOR NON COMP TO PLAN, REF TO CORRESPENCE DATED 9/10/02 AND PROJECT DIARY PAGE 45
- ✓ DEDCUT \$100 FOR NON COMP TO PLAN, REF TO CORRESPENCE DATED 9/11/02 AND PROJECT DIARY PAGE 70

NOTE: THE DEDUCTIONS ARE MADE UNDER SAME ITEM #
W.O. SS, FOR A \$200 LS DEDUCT

202.20 COMMON EXCAVATION

COMMON EXC STA 20+00 TO 21+25 (TAPERED ENDS)
FROST HEAVE AREA

SECTION	W1	W2	DEPTH	AREA SF	LENGTH	VOLUME
1	0	0	0	0	25	487.5
2	24'	28'	1.5'	39	75	2925
3	24'	28'	1.5'	39	25	487.5
4	0	0	0	0		
TOAL VOLUME =						3900 CF

ITEM 202.20

TOTAL VOLUME FOR THIS SECTION = (3900)/27 = 144.44 CY

ITEM 304.104 ASG QTY = 144.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

DEPTH = 18"

202.20

COMMON EXC STA 16+25 L

REGRADE ENTRANCE TO MATCH NEW ROADWAY ELEV

DATE	TRUCK NO	NO OF LOADS	VOLUME VOL/LOAD	VOLUME CY
37530	117	2	10.5	21
37530	120	3	11.2	33.6
10/2/2002	117	1	10.5	10.5
10/2/2001	120	1	11.2	11.2

TOTAL 76.3 CY

T.M. QTY REDUCTION

ITEM 202.2 TOTAL QTY .9(76.3) = 68.67 CY

REFER TO BOOK #4 PAGE 60 FOR TRUCK MEASUREMENTS

ITEM 304.104

NOTE: TRUCK REMOVED EXC AND RETURNED WITH ASC WITH ONE ADDITIONAL LOAD BY TRUCK NO 117

TOTAL 76.3 CY
TRK #117 10.5

86.8 CY

T.M. QTY REDUCTION

ITEM 304.104 TOTAL QTY .8(86.8) = 69.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

SUBGRADE CHECKS

LEFT		STA	RIGHT	
16'	12'	15+00	12'	16'
15+50				
16+00				
16+50				
17+00				
17+50				
18+00				
18+50				
19+00				
19+50				
20+00				
20+50				
21+00				
CHECKED BY B. SMITH 10-10-02				

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES ENT BY BBB 8-3-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES ENT BY BBB 8-3-02

NOTE: DEPTHS EXPRESSED IN INCHES BELOW C-1' F.G

2

LEFT		STA	RIGHT	
16'	12'	15+00	12'	16'
-2%	-2%	15+00	-2.0%	-2%
25"	24"	21"	24"	24.75"
15+50				
-2%	-1.50%	15+50	-2.0%	-2%
24.25"	23.25"	21"	24"	24.75"
16+00				
-2%	-1.0%	16+00	-2.0%	-2%
23.5"	22.5"	21"	24"	24.75"
16+50				
-2%	-0.50%	16+50	-2.0%	-2%
22.75"	21.75"	21"	24"	24.75"
17+00				
-2%	+1.0%	17+00	-2.0%	-2%
20.5"	19.5"	21"	24"	24.75"
17+50				
-2%	+2.5%	17+50	-3.0%	-3.0%
18.5"	17.5"	21"	25.25"	26.75"
18+00				
-2%	+4.0%	18+00	-4.0%	-4.0%
16.25"	15.25"	21"	26.25"	28.75"
18+50				
-2%	+4.0%	18+50	-4.0%	-4.0%
16.25"	15.25"	21"	26.25"	28.75"
19+00				
-2%	+2.5%	19+00	-3.0%	-3.0%
18.5"	17.5"	21"	25.25"	26.75"
19+50				
-2%	+1.0%	19+50	-2.0%	-2%
20.5"	19.5"	21"	24"	24.75"
20+00				
-2%	-0.5%	20+00	-2.0%	-2%
22.75"	21.75"	21"	24"	24.75"
20+50				
-2%	-1.5%	20+50	-2.0%	-2%
24.25"	23.25"	21"	24"	24.75"
21+00				
-2%	-2.0%	21+00	-2.0%	-2%
25"	24"	21"	24"	24.75"
CHECKED BY B. SMITH 10-10-02				

TRUCK MEASUREMENTS

TRUCK	MEASUREMENTS	QTY
		M3
<u>M# H</u>	<u>LXWXH</u>	
#017	3.93X2.21X1.22=10.6 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #017 = 10.6-.112 =	10.5
<u>M# H</u>	<u>LXWXH</u>	
#03	2.21X1.22=10.6 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #03 = 10.6-.112 =	10.5
<u>M# H</u>	<u>LXWXH</u>	
#032	3.83X2.11X1.12=9.05 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #032 = 10.6-.112 =	8.9
<u>M# H</u>	<u>LXWXH</u>	
#08	3.83X2.11X1.12=9.05 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #08 = 10.6-.112 =	8.9

CHECKED BY: ABC 1-2-03

ENT	DATE
BY	
BBB	37470

FINEGRADE CHECKS

LEFT		STA	RIGHT	
16'	12'		12'	16'
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02		15+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02	
		15+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		16+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		16+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		17+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		17+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		18+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		18+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		19+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		19+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		20+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		20+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		21+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	

NOTE: DEPTHS EXPRESSED IN INCHES BELOW C-1' F.G

LEFT		STA	RIGHT	
16'	12'		12'	16'
-2%	-2%	15+00	-2.0%	-2%
4"	3"	0"	3"	4"
-2%	-1.50%	15+50	-2.0%	-2%
3.25"	2.25"	0"	3"	4"
-2%	-1.0%	16+00	-2.0%	-2%
23.5"	1.5"	0"	3"	4"
-2%	-0.50%	16+50	-2.0%	-2%
1.75"	.75"	0	3"	4"
-2%	+1.0%	17+00	-2.0%	-2%
-0.5"	-1.5"	21"	3"	4"
-2%	+2.5%	17+50	-3.0%	-3.0%
-2.5"	-3.5"	0"	4.25"	5.25"
-2%	+4.0%	18+00	-4.0%	-4.0%
-4.75"	-5.75"	0"	5.75"	6.75"
-2%	+4.0%	18+50	-4.0%	-4.0%
-4.75"	-5.75"	0"	5.75"	6.75"
-2%	+2.5%	19+00	-3.0%	-3.0%
-2.5"	-3.5"	0"	4.25"	5.25"
-2%	+1.0%	19+50	-2.0%	-2%
-0.5"	-1.5"	0"	3"	4"
-2%	-0.5%	20+00	-2.0%	-2%
1.75"	0.75"	0"	3"	4"
-2%	-1.5%	20+50	-2.0%	-2%
3.25"	2.25"	0"	3"	4"
-2%	-2.0%	21+00	-2.0%	-2%
4"	3"	0"	3"	4"

CHECKED BY B. SMITH 10-10-02

7/24/1900 STRUCTURAL EARTH EXC-MAJOR STRUCTURES

	BS	HI	FS	ELEV	REMOVAL DEPTH BELOW FTG ELEV 8.5'
TMB #3	3.8'	19.3'			
EL = 15.5'					
1			12.0	7.3	1.2'
2			12.3	7.0	1.5'
3			12.1	7.2	1.3'
4			12.5	6.8	1.9'

AVERAGE DEPTH OF UNDERCUT BELOW ELEV 8.5' = 1.5'

ITEM 206.082 STRUCT EARTH EXC-MAJOR STRUCT

VOLUME = $.5(12+14) \times 4' \times 1.5' = 78 \text{ CF}/27 = 2.89 \text{ CY}$

ITEM 203.25 GRAVEL BORROW

VOLUME = $2.89 \times 1.15 \text{ (SWELL)} = 3.32 \text{ CY}$

ITEM 206.092 STRUCT ROCK EXC-MAJOR STRUCT

TOP OF LEDGE ELEVATIONS

	BS	HI	FS	ELEV
3	3.8	19.3'	10.0	9.3'
4			10.2	9.1'
5			9.2	10.1'
6			8.8	10.5
7			8.4	10.9'
8			8.2	11.1'

TOP OF LEDGE WEIGHTED AVERAGE ELEVATION

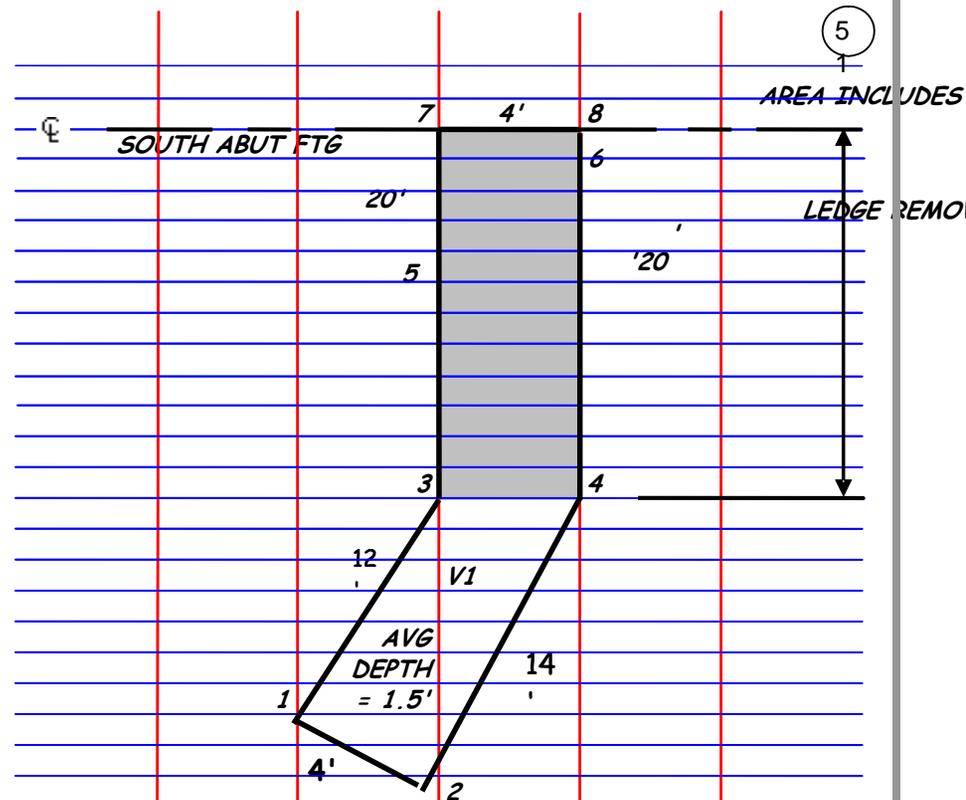
= $(9.3 + 9.1 + 2(10.1+10.5) + 10.9 + 11.1)/8 = 10.2'$

BOTTOM OF LEDGE ELEVATIONS

	BS	HI	FS	ELEV
3	3.8	19.3'	12.3	7.0
4			12.2	7.1'
5			12.0	7.3'
6			12.1	7.2'
7			12.2	7.1
8			12.3	7.0

BOTTOM OF LEDGE WEIGHTED AVERAGE ELEVATION

= $(7.0 + 7.1 + 2(7.3+7.2) + 7.1 + 7.0)/8 = 7.16$



ITEM 206.092

VOLUME OF LEDGE ABOVE PLAN ELEV OF 8.5

VOLUME = $(10.2-8.5) \times 21.5 \times 5.5' \text{ (18" PAY LIMIT)} = 201.0 \text{ CF}$

VOLUME = $201.0 / 27 = 7.44 \text{ CY} \checkmark$

ITEM 000.00, STRUCT ROCK BELOW PLAN ELEV TO BE PAID

1.5 TIME 206.092

VOLUME OF LEDGE BELOW PLAN ELEV OF 8.5'

VOLUME = $(8.5-7.15)' \times 21.5' \times 5.5' = 159.64 \text{ CF} / 27 = 5.9 \text{ CY} \checkmark$

ITEM 502.22 CONCRETE UNDERWATER

REF DELIVERY SLIP NO BRI-9046

QTY PLACED ON LEDGE TO PLAN ELEV = 6.5 CY \checkmark

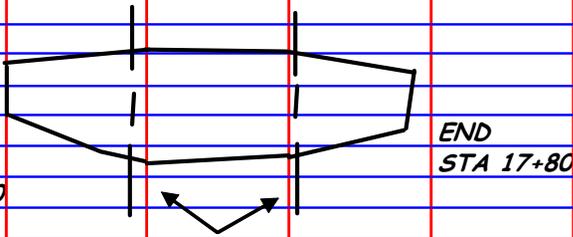
MEASURED/CALCULATED BY: BILL BITTERMAN 8-30-02

CHECKED BY: ABC 1-2-03 \checkmark

203.21 ROCK EXCAVATION

REMOVING ROCK ABOVE SUBGRADE STARTING AT STA 17+00

PLAN



TWO SECTIONS WERE TAKEN AT STA 17+60 AND 17+72

SECTION AT STA 17+60

NOTE: ZERO ELEV DEPICTS SUBGRADE



TBM	BS	HI	FS	ELEV	
= SG	5.5	5.5			
PT 1			5.5	0'	✓
PT 2			3.5	2.0'	✓
PT 3			4.0	1.5'	✓
PT 4			5.5	0'	✓

SECTION AT STA 17+72

NOTE: ZERO ELEV DEPICTS SUBGRADE



TMB = SG	BS	HI	FS	ELEV	
		5.5			
PT 1			5.5	0	✓
PT 2			4.0	1.5'	✓
PT 3			5.0	.5"	✓
PT 4			5.5	0	✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

AREA OF SECTION =

$$.5((X_1(Y_4 - Y_2) + X_2(Y_1 - Y_3) + X_3(Y_2 - Y_4) + X_4(Y_3 - Y_1)))$$

AREA OF SECTION AT 17 + 60

POINT	X	Y	DIFFERENCE OF Y'S	DOUBLE AREA +	-
1	0	0	0-2=-2		0 ✓
2	+5	+2	0-1.5=-1.5		7.5 ✓
3	12	+1.5	2-0=2	24 ✓	
4	+13	0	1.5-0=1.5	19.5 ✓	
1	0	0	0		0
				43.5 ✓	-7.5 ✓
				TOTAL = +43.5 - 7.5 = 36 ✓	
				AREA = 36 X .5 = 18 SF ✓	

AREA OF SECTION AT 17+ 80

POINT	X	Y	DIFFERENCE OF Y'S	DOUBLE AREA +	-
1	0	0	0-1.5=-1.5		0 ✓
2	5	1.5	0-.5=-.5		2.5 ✓
3	12	0.5	1.5-0=1.5	18 ✓	
4	13	0	.5-0=.5	7.5 ✓	
1	0	0	0		0
				25.5 ✓	2.5 ✓
				TOTAL = +25.5 - 2.5 = 23 ✓	
				AREA = 23 X .5 = 11.5 SF ✓	

VOLUME OF ROCK REMOVED

STA	AREA SF	AVERAGE AREA SF	LENGTH FT	VOLUME CF
17+50	0			
17+60	18	9 ✓	10 ✓	90 ✓
17+72	11.5	14.75 ✓	12 ✓	177 ✓
17+80	0	5.75 ✓	8 ✓	46 ✓
		TOTAL VOLUME =		313/27 = 11.59 CY ✓

ITEM 203.21 = 11.59 CY, ITEM 203.20 DEDUCT 11.59 CY ✓

206.07 STRUCTURAL ROCK EXCAVATION

206.07 STRUCTURAL ROCK EXCAVATION FOR 12" UD TYPE C
FROM STA 10+80 TO 11+90

TRENCH PAY WIDTH = DIA + 18" = 30" = 2.5' ✓

TOP OF ROCK ELEV.

	BM	BS	HI	FS	ELEV
	#3 = 23.5'	4.5	19.0		
STA					
10+90				9.0	10.0 ✓
11+00				8.8	10.2 ✓
11+10				8.6	10.4 ✓
11+20				8.5	10.5 ✓
11+30				8.2	10.8 ✓
11+40				8.1	10.9 ✓
11+50				8.4	10.6 ✓
11+60				8.6	10.4 ✓
11+70				8.5	10.5 ✓
11+80				8.8	10.2 ✓
11+90				9	10 ✓

BOTTOM OF ROCK ELEVATIONS

	BM	BS	HI	FS	ELEV
	#3 = 23.5'	4.2	19.3'		
STA					
10+85				9.7	9.6 ✓
10+90				9.6	9.7 ✓
11+00				9.4	9.9 ✓
11+10				9.5	9.8 ✓
11+20				9.5	9.8 ✓
11+30				9.4	9.9 ✓
11+40				9.6	9.7 ✓
11+50				9.5	9.8 ✓
11+60				9.4	9.9 ✓
11+70				9.5	9.8 ✓
11+80				9.6	9.7 ✓
11+90				9.5	9.8 ✓
11+95				9.7	9.6 ✓

STA	TOP LEDGE	BOTTOM LEDGE	AREA	AVG AREA L'	VOLUME
10+85	0	9.6	0		
				.25 X 5	1.25 ✓
10+90	10.0	9.8	0.5		
				.875 X 10	8.75 ✓
11+00	10.2	9.7	1.25		
				1.25 X 10	12.5 ✓
11+10	10.4	9.9	1.25		
				1.5 X 10	15 ✓
11+20	10.5	9.8	1.75		
				2.13 X 10	21.3 ✓
11+30	10.8	9.8	2.5		
				2.75 X 10	27.5 ✓
11+40	10.9	9.7	3		
				2.5 X 10	25 ✓
11+50	10.6	9.8	2		
				1.63 X 10	16.3 ✓
11+60	10.4	9.9	1.25		
				1.5 X 10	15 ✓
11+70	10.5	9.8	1.75		
				1.5 X 10	15 ✓
11+80	10.2	9.7	1.25		
				.875 X 10	8.75 ✓
11+90	10	9.8	0.5		
				.25 X 5	1.25 ✓
11+95	0	9.6	0		
(END OF ROCK EXC)					
				TOTAL VOLUME =	167.6 CF ✓

NOTE: ALL FINAL ROCK ELEV ABOVE THE FLOW LINE -1 FT
PAY LIMIT (PIPE ELEV. 10.4 TO 10.0)

ITEM 206.07

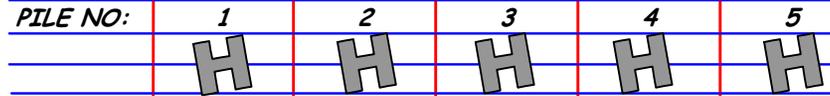
TOTAL VOLUME = 167.6/27=6.2 CY ✓

MEASURED & CALCULATED BY : BILL BITTERMAN 11-08-02
CHECKED BY: ABC 1-2-03 ✓

501.36 STEEL H-PILES

PILE NO.	HEAT NO.	DATE DRIVEN	LENGTH (FT)	CUT OFF	LENGTH
1	191244	5-2-02	50.32	4.1"	89.3 ✓
	194352	5-6-02	40.26	11.33'	
DRIVEN LENGTH					
2	191248	5'-2'-02	50.32	7.2"	89.0 ✓
	194350	5-6-02	40.27	11'-6"	
DRIVEN LENGTH					
3	191248	5'-2'-02	50.33	6"	89.2' ✓
	194348	5-6-02	40.27	11'-0"	
DRIVEN LENGTH					
4	191244	5'-2'-02	50.31	4"	89.3' ✓
	194427	5-6-02	40.25	11'-6"	
DRIVEN LENGTH					
5	191246	5'-2'-02	50.31	6"	89.1' ✓
	194352	5-6-02	40.26	11'-2"	
DRIVEN LENGTH					

PILE NO.	501.361		501.36		
	DRIVEN LENGTH (FT)	ACCUM (FT)	PILES DELIVERED (FT)	(FT)	ACCUM (FT)
1	89.3' ✓	89.3'	50.32' ✓	40.26' ✓	90.58
2	89.0' ✓	178.3	50.32' ✓	40.27' ✓	181.17
3	89.2' ✓	267.5	50.33' ✓	40.27' ✓	271.77
4	89.3' ✓	356.8	50.31' ✓	40.25' ✓	362.33
5	89.1' ✓	445.9 ✓	50.31' ✓	40.26' ✓	452.9' ✓



NORTH ABUTMENT

STREAM



NOTE: THE PILE #'S ARE NOT THE SAME AS THE BEAM #'S
ALL PILES ARE HAVE A 10 DEGREE SKEW

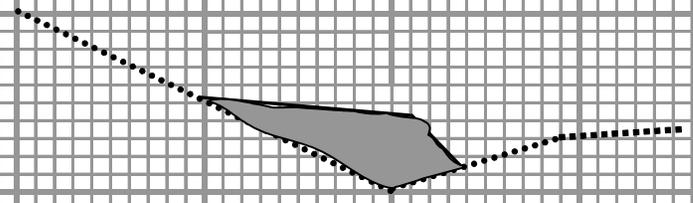
ITEM 501.36: PILES DELIVERED = 452.9'

ITEM 501.361: PILES IN PLACE = 445.9'

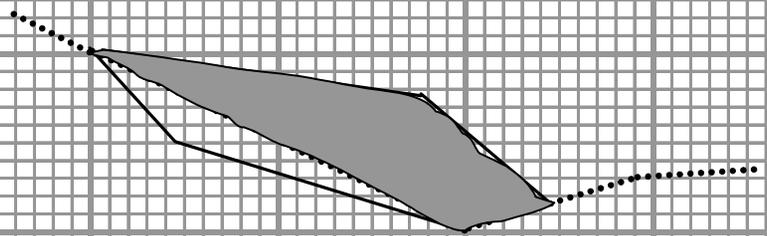
MEASURED/COMPS BY BILL BITTERMAN 5-7-02

CHECK BY: ABC 8-08-02 ✓

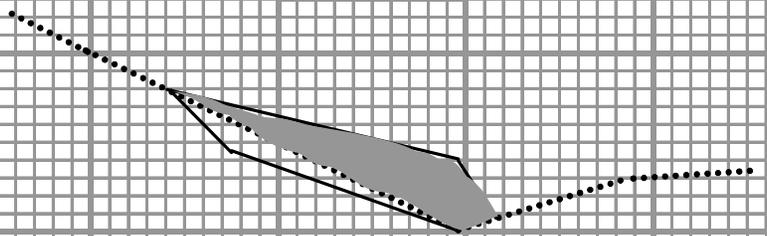
..... DESIGN GRADE
 █ 203.21 ROCK EXCAVATION
 ——— ROCK PROFILE



STA 21+50



STA 21+75



STA 22+90

ITEM 203.21

NOTE: ALL AREAS WERE MEASURED WITH A PLANIMETER FROM THE ADJACENT CROSS SECTIONS

STA	AREA	AVERAGE AREA	LENGTH (FT)	VOLUME (CY)	
21+25	0	2.9	25	2.7	✓
21+50	5.8	7.5	25	6.9	✓
21+75	9.2	6.5	15	3.6	✓
21+90	3.8	1.9	20	1.4	✓
22+10	0				
		TOTAL		14.6	✓

ITEM 203.21 TOTAL = 14.6 CY ✓

MEASURED/CALC BY: BILL BITTERMAN 8/20/02

CHECKED BY: ABC 1-2-03

DATE	DAY	WEATHER
PROJECT ACTIVITIES:		
<input type="checkbox"/>	ITEM NUMBER, LOCATION & LIABLE CONTR/SUB	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF ANY EXCAVATION	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF GRAVEL AND BORROW	
<input type="checkbox"/>	NON-ROUTINE ACTIVITIES	
A:	CONTRACTORS' NON ADHERANCE TO CONTRACT SPEC'S: MTCD'S & SEWPC	
B:	MDOT DIRECTIVES GIVEN TO CONTRACTOR IE: RELOCATIONS, CHANGES IN ALIGNMENT UNDERCUT & REWORK	
C:	CONTRACTOR IS INADEQUETLY STAFFING THE JOB FOR THE TYPE OF WORK	
D:	ANYTHING RELATED TO POTENTIAL CONTRACTOR CLAIMS	
E:	ANY DISCUSSIONS WITH TOWN OFFICIALS, UTILITIES, DEVELOPERS AND ABUTTERS	
G:	TRAFFIC ACCIDENTS & OTHER HAZARDS	
ENTERED BY : NAME & DATE		

DATE	DAY	WEATHER	1
7/16/2002		SUNNY 70'S	
ITEM 206.082			
COMPLETED EXCAVATION AT THE NORTH ABUTMENT SECTION, UPSTREAM OF CENTERLINE, DEWATERED AREA, CLEANED OFF LEDGE, AND PLACE 12.2 CY OF CONCRETE			
ITEM 502.26			
PLACED 10.82 CY OF CONCRETE FILL, 1.25 CY OF CONCRETE WAS SPILLED BEYOND THE FORMS AND WILL NOT BE PAID FOR. THE REMAINING CONCRETE WAS PLACED IN THIS SECTION TO THE ELEV OF THE BOTTOM THE FOOTING SHOWN ON THE PLANS. SECTION CURED WITH WATER AND CONT'D WETTED			
BILL SIMPSON, OES CONSULTANT ON -SITE TO REVIEW SEWPC DEVICES AND 3 ISSUES WERE BROUGHT TO MY ATTENTION, AND WERE DIRECTED IMMEDIATELY TO JEFF SIMPSON, W&S SUPER. AND WERE ALL ISSUES WERE RESOLVED.			
ITEM 206.082			
ALL EXCAVATED MATERIAL WAS DETERMINED TO BE UNUSABLE AND WAS TAKEN TO THE SMITH WASTE AREA			
ITEM 652.36 AND 656.75			
ALL MTCD'S AND SEWPC DEVICES ARE INPLACE AND IN GOOD WORKING CONDITION AT THE END OF THE DAY			
ENTERED BY: BILL BITTERMAN 7-16-02			

7/17/2002 TUESDAY

FAIR 50'S

ITEM 211.20

WHILE PERFORMING INSLOPE WORK, DISCOVERED THAT THE EXISTING BACK SLOPES ARE NOT AS SHOWN ON THE X-SECTIONS AT STA 20+00 TO 21+35 LEFT DO NOT DEPICT ACTUAL FIELD CONDITIONS, EXISTING SLOPES ARE STEEPER AND INFRINGE ON DETAILED GUARDRAIL PLACEMENT.

DIRECTED CONTRACTOR TO REMOVE 9 STUMPS AND TO CUT BACKSLOPES TO FIELD STAKED MATCH POINT (WITHIN THE R O W,

DIRECTED THE CONTRACTOR TO REMOVE 9 SINGLE TREES THESE TREES WERE OUTSIDE OF THE CLEARING LIMITS BUT REQUIRED REMOVAL DUE TO ACTUAL BACKSLOPES MATCH POINTS AND SIGHT DISTANCE, AND OVERALL POOR CONDITION OF THE TREES.

THE 9 TREES POSED A VERY SERIOUS HAZARD TO VEHICULAR TRAFFIC.

STUMP & TREE REMOVAL WILL BE PAID BY RWO, EXCAVATING AND SHAPING BACKSLOPES WILL BE PAID WITH EXISTING BID ITEMS (MANPOWER AND EQUIPMENT RENTAL TIME)

ENTERED BY: BILL BITTERMAN 7-17-02

6/7/01 FRIDAY

SUNNY 70'S

2

ITEM 603.159 CULVERT PIPE OPTION III

REMOVED EXISTING 12" CMP AND INSTALLED 48' OF 12" CORR. POLYETHYLENE PIPE AT STA 12+75. PIPE WAS INSTALLED PER LINE, GRADE AND SPEC. BACKFILLED WITH EXCAVATED MATERIAL AND COMPACTED EACH 8" LIFT THERE WAS ALSO AN UNDERCUT BELOW THIS PIPE BECAUSE OF UNSTABLE UNDERLYING BLUE CLAY. THIS UNDERCUT WAS APPROVED BY THE RESIDENT ENGINEER.

UNDERCUT MEASUREMENTS

ITEM 206.061 STRUCT EARTH EXC. - BELOW GRADE THE PIPE WAS UNDERCUT BY 24" +/- FROM PROPOSED FLOW LINE

AVERAGE DEPTH = $22+27.5+26+24.5+23.5/5=24.7"$
MAX WIDTH=PIPE DIA + 15"(EACH SIDE)=42"
LENGTH = 40'
QTY = $(24.7"-12") \times (15"+12"+15") \times 40' / 27 = 5.5 \text{ CY}$

ITEM 203.25 GRANULAR BORROW

ITEM USED TO BACKFILL UNDERCUT
TOTAL QTY = 5.5 CY

BORROW MEASUREED IN PLACE MUST BE SWELLED BY 15%

TOTAL QTY = $5.5 \times 1.15 = 6.33 \text{ CY}$

ENTERED BY : BILL BITTERMAN 6-7-02

9/10/2002 FRIDAY

SUNNY 70'S

ITEM 603.159

CONTRACTOR ARRIVED AT THE SITE TODAY WITH THE OPTION III, ALL PIPE IS CERTIFIED ASHTO M-294 STAMP

ITEM 631.12

USED 2 HRS OF APE, REF TO DREW NO. 3, TO CREATE A BETTER SWALE THROUGH THE PROPERTY OF MRS SMITH. MRS SMITH BROUGHT TO OUR ATTENTION THAT THE WATER RUNOFF FROM THE ROAD COLLECTS NEAR HER HOUSE AND ASKED THE MDOT TAKE REMOVE A HIGH SPOT IN HER LAWN TO ALLOW FOR BETTER DRAINAGE THE HIGH SPOT WAS LOCATED WITHIN THE ROW

ITEM 652.33

COUNTED 22 DRUMS USED ON THE PROJECT TODAY

ITEM 304.10

CONTINUED TO PLACE ASC-GRAVEL IN WELL COMPACTED LIFTS FROM ST 12+00 TO 15+50

NOTE: D. WEISNER ON PROJECT TODAY TO TEST COMPACTIONS

ENTERED BY: BILL BITTERMAN 9-10-02

6/8/2001 TUESDAY

SUNNY 70'S

3

603.09 CB STA 33+28 RT

INSTALLED 8' PRECAST CB WITH 2' SUMP FOR EXISTING 24" CIP. REMOVED A PORTION OF A LARGE CONCRETE STRUCTURE IN ORDER TO INSTALL CB SUMP. SEE OPPOSITE PAGE FOR PAY DEPTH & QTY'S BACKFILLED WITH STONE FOR CB BEDDING. OUTSIDE CB = 4' DIAMETER EXCAVATED 18" OUTSIDE WALL AND USED A 235 B'HOE WITH HOE RAM TO REMOVE CONCRETE BACKFILLED WITH EXCAVATED MATERIAL, AND COMPACTED EACH LIFT. ALL WORK DONE ACCORDING TO PLANS & SPEC

ITEM 203.07 STRUCTURAL ROCK EXCAVATION

BROKE OFF EXISTING CONCRETE STRUCTURE TO INSTALL CB SUMP

BOTTOM OF SUMP CONC ELEV = 90.5' FROM PLANS ✓

AVERAGE ELEV OF TOP OF BURIED CONCRETE

TBM #	BS	HI	FS	ELEV.	
101.5		3.5	105	✓	
			9.0	96	✓ TP OF CONC
			9.3	95.7	✓ TP OF CONC
			9.9	95.1	✓ TP OF CONC
			10.0	95	✓ TP OF CONC

AVERAGE TOP ELEV OF BURIED CONCRETE = 95.45'

BOTTOM OF UNDERCUT ELEV = 89.5'

DEPTH OF CONCRETE REMOVED = 95.45 - 89.5 = 5.95' ✓

WIDTH OF CONCRETE REMOVED = 4' + 2(1.5') = 7' ✓

ITEM 203.07 STRUCT ROCK EXCAVATION

VOLUME = 3.14 X (7/2)² X 5.95 = 65.42 CF / 27 = 2.42 CY ✓

ENTERED BY : BILL BITTERMAN 06-08-02

CHECKED BY: ABC 1-2-03 ✓

37422 MONDAY

SUNNY 70'S

4

ITEM 202.20

CONTRACTOR IS MILLING EXISTING PAVEMENT AND STOCKPILING MAT'L AT APPROVED STAGING AREA TO BE USED LATER AS AS6 GRAVEL. CONTRACTOR IS EXCAVATING MAT'L FROM STA 15+00 TO 21+00. QTY TO BE MEASURED PLAN QTY. REF TO BK 3 PG 2 FOR SUBGRADE CHECK AND CONTRACTOR IS TAKING MAT'L TO THE SMITH'S WASTE AREA.

ITEM 304.104

CONTRACTOR IS BACKFILLING EXC AREAS WITH MAT'L FROM THE ALLISON PIT AND PLACING AND COMPACTING IN LIFTS FROM STA 15 + 00 TO STA 21+00. MILLINGS WAS USED TO PLACE THE FINAL LIFT. QTY IS TO BE MEASURE PLAN QTY REF TO BK 3 PG 3 FOR FINEGRADE CHECKS

ITEM 203.21

ROCK WAS REMOVED FROM STA 16+50 FIELD MEASURED VOLUME = 4.5' X 3.3' X 4' = 59.4 CF / 27 = 2.2 CY

ITEM 202.20

DEDUCT ROCK QTY OF 1.46 CY FROM ITEM 202.2

ENTERED BY : BILL BITTERMAN 6-15-02

ITEM 203.25

GRANULAR BORROW THE CONTRACTOR OPTED TO USE A BEDDING OF CRUSHED STONE FOR THE CB THE BEDDING WILL BE PAID AT THE CONTRACT PRICE OF 203.35 GRANULAR BORROW

VOLUME OF GRANULAR BORROW

ELEV OF BOTTOM OF CONC SUMP = 92.00 ✓

ELEV OF BOTTOM OF UNDERCUT = 87.5' ✓

MEASURE UNDERCUT FOR PAYMENT ✓
92.00 - 4"(CONC) - 12" (FIRST FT FREE) = 90' - 8"

DEPTH OF UNDER CUT
90.75 - 87.5 = 3.25' ✓

VOLUME

(3.14 X (7/2)2 X 3.25) / 27 = 4.63 CY ✓

SWELL = 4.63 X 1.15 = 5.32 CY ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

6/10/2002 MONDAY

SUNNY 70'S

ITEM 403.208

PAVING 12' ML AND 4' SHOULDERS IN ONE PASS.

BOTH ARE METHOD A DENSITIES ARE EXCLUDED FROM THE PAY FACTOR FOR THE MATERIAL PLACED ON THE VARIABLE WIDTH SHOULDERS ONLY.

MIKE SMITH, PAVING SUPT. AND MYSELF AGREED THAT THE TONAGE ON M.L. AND SHLDR ARE TO SPLIT IN THE FOLLOWING MANNER.

$ML = (7,100' \times 12' \times 2) / 9 \times 110\#/SY/IN / 2000 = 3,000 \text{ TONS}$

~~1,601.25 T~~ - 3,000 T = 301.25 TONS

REF COVER SLIP #3458 QTY OF 1601.25 TONS FOR ITEM 403.208

ITEM 508.13

AD ROSSI ON SITE TO INSTALL MEMBRANE

ON BRIDGE DECK. THE DECK WAS "SHOT BLASTED" USING A BLASTAC MACHINE USING SMALL BLACK STEEL PELLETS.

THE DECK WAS BLASTED COMPLETED AND FREE OF LATANCE.

3 MOISTURE READING WERE TAKEN BY THE CONTRACTOR USING A SOVEREIGN PORTABLE ELECTRONIC MOISURE MASTER

WITH RESULTS OF 3.2, 3.2 & 3.3., THE READINGS

WERE TAKEN AT STA 1+005, CL, STA 1+009 1.5 M RT, AND STA 1+112; 2M LT RESPECTIVELY.

ROSSI PRIMED THE DECK USING ROYSTON RAYBOND 713

BATCH NO. BA A 23908

ROSSI PLACED 32.4 SM OF ROYSTON 10AN EASYPAVE

MEMBRANE AND ALL EDGES WERE SEALED WITH MASTIC

THE PRIMER AND MEMBRANE PRODUCTS ARE ON THE MDOT

APPROVED PRODUCT LIST

37110 MONDAY

SUNNY 70'S

5

ITEM 511.07

CONTRACTOR INSTALLING UPSTREAM AND DOWNSTREAM COFFERDAMS. BUILDING SEDIMENTATION BASINS ON DOWNSTREAM SIDE OF BRIDGE ON EXISTING LOGGING. THE CONTRACTOR WAS NOTIFIED THAT THE BASIN NEEDS MORE BALES PER EROSION CONTROL PLAN. CONTRACTOR IS TAKING MAT'L TO THE SMITH'S WASTE AREA.

ITEM 509.12

CONTRACTOR HAS FINISHED ERECTING PIPE ARCH THIS A.M. AND STARTED TIGHTENING THE BOLTS WITH COMPRESSOR. PERFORMED TORQUE CHECK ON BOLTS

ITEM 203.21

ROCK WAS REMOVED FROM STA 16+50

FIELD MEASURED

VOLUME = $5' \times 3.3' \times 4' = 66 \text{ CF} / 27 = 2.44 \text{ CY}$

ITEM 202.20

DEDUCT ROCK QTY OF 2.44 CY FROM ITEM 202.2

ITEM 206.061

DIRECTED CONTRACTOR TO UNDERCUT UD TO AVOID EXISTING UTILITY, THE UTILITY IS NOT LOCATED AS PER PLAN.

FIELD MEASURE FROM FLOW LINE

DETH BELOW FLOWLINE -AVG 2.5 FT

WIDTH = 2.5'

LENGTH = 45'

QTY = $(2.5-1' \text{ PAY LIMIT}) \times 2.5' \times 45' / 27 = 6.25 \text{ CY}$

ENTERED BY : BILL BITTERMAN 8-7-02

37109 MONDAY

SUNNY 70'S

ITEM 511.07

UPSTREAM AND DOWNSTREAM COFFERDAMS COMPLETED PER PLAN AND SPEC AND GOODWIN'S WAS ONSITE TO DELIVER PUMP AND PIPES. WATER IS NOW BEING DIVERTED FROM ABOVE COFFERDAM TO DOWNSTREAM BASIN.

ITEM 509.12

SPOT CHECKED TORQUE ON BOLTS AFTER PIPE WAS IN THE GROUND AND RE-TORQUE AND FOUND TO BE WITHIN SPECIFICATIONS.

ITEM 652.36

MTCD ARE OF FOR THE DAY. ROAD WAS CLOSED THIS AM TO TRAFFIC. ALL DETOUR SIGNS WERE PUT INTO PLACE THIS MORNING AS PER PLAN.

ITEM 652.312 AND 526.301

TYPE III BARRICADES IN PLACE AND TEMP CONC BARRIERS PUT IN PLACE BEHIND TYPE III AS PER PLAN ON THE NORTH ANDOVER ROAD ENTERING AND EXITING THE WORK AREA NEAR THE MULTIPLATE.

ENTERED BY: BILL BITTERMAN 8-06-02

7/2/2002 TUESDAY

HOT & HUMID

6

ITEM 501.36 AND 501.361

COMPLETE ASSEMBLY OF DELMAR D19-42 DIESEL HAMMER, TECH ANDY PETREE ON SITE TO OVERSEE ASSEMBLY & OPERATION OF HAMMER.

ABUTMENT NO. 1

THE LAST OF THE SPLICES ARE COMPLETED AS TODAY BY KEN DUNLOP, CERTIFIED WELDER ID NO 564-9873

ITEM 501.02

CONTRACTOR USED PREFABRICATED PILE SPLICES (AFF CHAMPION SPLICES), WELDED SPLICES TO INSIDE OF FLANGE ALSO WELDED OUTSIDE OF FLANGES. A PARTIAL PENETRATION GROOVE WELD WITH 45 DEGREE BEVEL ON THE UPPER MEMBER.

USED AIRCO CODE ARC7018MR SHIELDED METAL ARC WELDING ELECTRODES (ACCORDING TO MDOT APPROVED LIST)

ITEM 501.361

DROVE PILES # 1,2,3,4 & 5 TO REFUSAL AND CUT PILES TO REQ'D ELEVATIONS

NOTE:

FRED AGHARAZI, AATECH, ON SITE TO PERFORM PILE DRIVING ANALYSIS, (DYNAMIC LOAD TEST) ON FIRST DRIVEN PILE PILE #5, PILE CAPACITY AND ALLOWABLE DRIVING STRESSES CONFIRMED, PILE REFUSAL DETERMINED BY 4 BLOWS/ 0 " REF TO TESTING FILE FOR ITEM 501.361

ENTERED BY: BILL BITTERMAN 7-02-02