

# 1. Construction Overview

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## 1.1. Definitions, Terms and Acronyms

Terms that are frequently used in the manual are briefly defined below. If there is any conflict between these definitions and definitions contained in the contract, the language of the contract governs.

**AAC:** Alaska Administrative Code

**AC:** The FAA’s Advisory Circular

**ACM:** Alaska Construction Manual

**AIP:** Airport Improvement Program. The program administered by the FAA in accordance with Federal Aviation Regulations and 49 CFR Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

**AK-CESCL:** Alaska Certified Erosion and Sediment Control Lead

**AKSAS:** Alaska State Accounting System was replaced by IRIS in July 2015.

**ALDER:** The Alaska Data Enterprise Reporting Data Warehouse is a statewide system designed to integrate and report data from IRIS.

**ALP:** Airport Layout Plan

**American Recovery and Reinvestment Act (ARRA):** A federal program that provides stimulus funds to some construction projects.

**APDES:** The Alaska Pollutant Discharge Elimination System. A DEC storm water discharge permitting system that replaces the EPA clean water act permitting system.

**Appeals Officer:** The Commissioner of the Department or designee.

**APPW:** Alaska Products Preference Worksheet

**ARFF:** Aircraft Rescue Fire Fighting

**AS:** Alaska Statutes

**ATP:** Authority to Proceed. FHWA issues the authority for advertising the construction contract for bids.

**Bid Tabulation:** A certified listing released shortly after the bid opening that shows the three lowest bidders’ prices by pay item and total bid, and the Engineer’s Estimate.

**BMP:** Best Management Practices

**Calendar Day:** Every day shown on the calendar, beginning and ending at midnight.

**CFR:** Code of Federal Regulations

**Change Document:** A written order by the Department to the contractor making changes to the contract.

**Change Order:** A written amendment to the contract covering a modification that is within the scope of the original contract.

**Chief Contracts (Procurement) Officer:** A person who works statewide for the commissioner on Policy & Procedures, appeals, policy, and guidance.

**CIP:** Capital Improvement Project

**CGP:** The Construction General Permit that authorizes stormwater discharges from Construction Activities, issued and enforced by DEC.

**CMP:** Construction Management Program

**CRO:** DOT&PF Civil Rights Office

**Conformed Contract:** The bound contract documents containing the plans and specifications, addenda, the fully-executed contract, payment and performance bonds, EEO forms, and a completed bid schedule.

**Construction Engineering (CE):** Department management and administration of the contract during construction.

**Construction General Permit (CGP or ACGP):** The APDES or NPDES storm water permit that

regulates discharges from construction activities. Also see MSGP.

**Contracting Officer:** The person authorized by the Commissioner of the Department to enter into and administer the contract on behalf of the Department. The project's contracting officer is identified on the Invitation to Bid.

**CTAF:** Common Traffic Advisory Frequency

**CWA:** Clean Water Act

**D&ES:** Statewide Design and Engineering Services Division

**DBE:** Disadvantaged Business Enterprise

**DEC:** Alaska Department of Environmental Conservation. Also see APDES.

**Deferred-Participating Expense:** Expenses on a federally funded project whose eligibility for reimbursement has been questioned by the federal agency, or whose eligibility has not yet been determined.

**Department (DOT&PF):** The State of Alaska Department of Transportation and Public Facilities

**DER:** Design Engineer of Record

**Directive:** A written communication to the contractor from the Project Engineer, enforcing or interpreting a contract requirement or ordering commencement or suspension of an item of work already established in the contract.

**DOLWD:** Alaska Department of Labor and Workforce Development

**EEO:** Equal Employment Opportunity

**EMT:** Emergency Medical Technician

**Encumbrance:** An amount of money set aside in AKSAS to meet financial obligations to a contractor, consultant, or equipment supplier.

**Engineer's Estimate:** The estimated unit prices of each contract pay item, developed by the design engineer, which is used to establish the initial funding for the project and is released to the public at the bid opening.

**eNOI:** The Electronic Notice of Intent to begin construction activity under APDES or NPDES.

**eNOT:** The Electronic Notice of Termination to end coverage under APDES or NPDES.

**EPA:** U.S. Environmental Protection Agency. EPA is the federal agency responsible for formulating policies and implementing regulations to maintain water quality throughout the nation.

**Employee Safety Concerns Program (ECP):** An ECP provides an alternate method for raising safety concerns outside the chain of command. The program is managed by the Statewide Safety Officer and includes a help line. (907) 338-1482.

**Erosion and Sediment Control Plan (ESCP):** See specifications.

**FAA:** Federal Aviation Administration. FAA provides a safe, secure, and efficient global aerospace system that contributes to national security and the promotion of U.S. aerospace.

**FCC:** Federal Communications Commission. FCC is an independent government agency intended to encourage competition in all communications markets and to protect the public interest. The FCC develops and implements policy concerning interstate and international communications by radio, television, wire, satellite, and cable.

**FHWA:** Federal Highway Administration. FHWA administers a number of highway transportation activities including standards development, research and technology, training, technical assistance, highway access to federally owned lands and Indian lands, and commercial vehicle safety enforcement. FHWA has a significant role, working through partnerships, programs, policies, and resources that facilitate the strategic development and maintenance of state and local transportation systems as effective and efficient elements of the national intermodal transportation system.

**Field Engineering Expenses:** That portion of CE expenses incurred by the Project Engineer and the project staff.

**FOP:** Field Operating Procedure

**FSS:** FAA Flight Service Station

**General Scope of the Contract:** A phrase used in conjunction with contract changes to define the nature of the original contract and the breadth of the originally intended end product of that construction.

**Group Chief/Project Manager (PM):** The Project Engineer's immediate supervisor who concurrently supervises several Project Engineers.

**HMCP:** Hazardous Material Control Plan. The HMCP is integrated into the SWPPP. See specifications.

**IDR:** Inspector's Daily Report

**Interim Work Authorization (IWA):** A written order by the Project Engineer initiating changes to the contract, within its general scope, until a subsequent change order is executed.

**IRIS:** The Integrated Resource Information System is a series of integrated software systems that handle accounting, finance, procurement, payroll and human resources management processes. It includes project financial records.

**Liquidated Damages (LDs):** An amount contractually stipulated as a reasonable estimation of actual damages to be recovered by the Department if the contractor fails to perform as required.

**Manufacturer's Certificate of Compliance:** A certificate from the supplied materials manufacturer, which certifies the product meets or exceeds the contract requirements. The certificate must state that the material or assembly fully complies with contract requirements, identify the project name and number, and be signed by the manufacturer. The certificate must accompany each lot of the materials or assemblies delivered to the project.

**Materials Certification List (MCL):** MCL is a project-specific list developed during the PS&E stage of the design of a highway or airport project that lists all the material certifications required by the contract and the approving authority for the certification. The completed MCL includes materials that have been added by change order with the appropriate approving authority. The 660/661 MCL is a separate MCL for all contracts containing 660 and 661 items in order to comply with the Department of Labor agreement with the Department.

**Material Sampling and Testing Frequency (MSTF) Table:** A table that lists the minimum frequency of materials sampling and testing.

**Materials Testing Summary:** A summary of all test reports required and completed for a specific project,

based on plans, specifications, the MSTF table, and final pay quantities.

**Memorandum of Exceptions:** A memorandum by the Project Engineer with concurrence from the Quality Assurance Engineer, explaining any substantial exceptions to the plans and specifications. When a Memorandum of Exceptions is required, it is included with the Project Materials Certification letter.

**MS4:** Municipal Separate Storm Sewer System. A separate permit required for a municipal storm sewer system to discharge pollutants under an APDES or NPDES permit.

**MSDS:** Material Safety Data Sheets

**MSGP:** Multi Sector General Permit, The APDES or NPDES storm water permit that regulates discharges from industrial or commercial sites. Also see CGP.

**MSHA:** Mine Safety and Health Administration, U.S. Department of Labor.

**NHS:** National Highway System

**NICET:** National Institute for Certification in Engineering Technologies

**NOC:** Notice of Completion, from DOLWD

**NOW:** Notice of Work, from DOLWD

**Non-participating Expense:** All expenses on state-funded projects as well as expenses on federally funded projects that are ineligible for reimbursement by the funding agency.

**NOTAMs:** Notices to Airmen. Information not known sufficiently in advance to publicize by other means concerning the establishment, condition, or change in any component (facility, service, or procedure) of, or hazard in, the National Airspace System (NAS); the timely knowledge of which is essential to personnel concerned with flight operations (FAA Order 7930.2).

**NPDES:** The National Pollutant Discharge Elimination System is the federal, nationwide, multifaceted permitting program to prevent the pollution of the nation's waters.

**NRC:** United States Nuclear Regulatory Commission

**NTP:** Notice To Proceed

**OJT:** On-the-Job Training.

**OSHA:** Occupational Safety and Health Administration. OSHA is an agency created to save lives, prevent injuries, and protect the health of America's workers.

**Partial Completion:** Replaces the term "Partial Acceptance" in future versions of the Standard Specifications for Highway or Airport Construction.

**Participating Expense:** An expense on a federally funded project that is eligible for reimbursement by the funding agency.

**P&P:** The Department's Policy and Procedures.

**Plans:** The Department's contract drawings that show the work. They are supplemented by the contractor's approved Working Drawings.

**Project Development Authorization (PDA):** An authorization form that establishes the funding for a project or a project phase.

**Project Engineer:** The authorized representative of the contracting officer, the Project Engineer is in direct charge of the project.

**Project Materials Certification:** A letter of certification that verifies the materials incorporated into the project conform to the plans and specifications.

**Project Materials Report (PMR):** PMR may be used to certify off-the-shelf local material purchases and the placement of minor quantities according to the Materials, Sampling & Testing Frequency tables for highway or airport projects (see Section 18.8-18.11).

**QC:** Quality Control is the contractor's program to ensure that materials and construction meet contract requirements.

**QLA:** Quality Level Analysis. QLA is used when the specifications require a price adjustment. Price is adjusted for quality of work performed.

**QPL:** Qualified Products List. A list of materials that meet the Department's standard specifications, except for Buy America and Alaska Agricultural/Wood Products. The Department makes no guarantee that any product on the *Qualified Products List* meets the requirements of the Buy America Act, Buy America Provision, or Alaska Agricultural/Wood Products.

**RCCL:** Regional Contract Compliance Liaison. The staff person assigned to be liaison between the

regional construction branch and the civil rights office.

**Regional Construction Engineer:** The person in charge of the Regional Construction Section.

**Reimbursable Services Agreement (RSA):** A contract between the Department and another governmental entity, under which either entity performs contract services for the other, and is reimbursed by them.

**RFP:** Request for Proposal

**RME:** Regional Materials Engineer

**RQE:** Regional Quality Assurance Engineer

**Safety Conscious Work Environment (SCWE):** An environment where employees feel free to raise safety concerns without fear of retaliation. See Appendix.

**SME:** Statewide Materials Engineer

**Source Document:** The original record, created or received at the project site, that contains the necessary measurement and acceptance/rejection information on a contract pay item, and is signed and dated by the author.

**SPCC Plan:** Spill Prevention Control and Countermeasure Plan. See specifications and 40 CFR 112.

**Specifications:** The written contract documents that govern the methods and materials the contractor will use to construct the project, and contain the methods of measurement and basis of payment for contract pay items.

**SQE:** Statewide Quality Assurance Engineer

**Supplemental Agreement:** A written amendment to the contract covering a modification to the contract that is outside the scope of the original contract.

**Support Group:** Any unit of the Department, other than the Project Engineer and project staff, that provides support services to the Project Engineer during the construction phase of the project.

**SWPPP:** Storm Water Pollution Prevention Plan. See specifications.

**TAW:** Technical Advisor for Welding

**Transportation Management Plan (TMP):** A plan to manage the work zone impacts of a highway

project. It includes a Traffic Control Plan (TCP), and may also include a Traffic Operations Plan (TOP) and/or a Public Information Plan (PIP).

**USCA:** The United States Code Appended

**Utility:** In the usage of this manual, an entity and its facilities that produces/transmits electricity, communication signals, water, steam, sewage, petroleum products, gas, or similar commodity, or is a railroad.

**WAQTC:** Western Alliance for Quality Transportation Construction

**Working Drawings:** The contractor's shop drawings, plans, details and diagrams. After the Department approves working drawings, they become part of the contract.

## 1.2. DOT&PF Organizational Structure

DOT&PF is organized geographically with a Headquarters office in Juneau, and regional offices in Juneau (Southcoast Region), Anchorage (Central Region), and Fairbanks (Northern Region). There are also highway maintenance offices, design offices, marine facilities, airports, and public buildings scattered across the state.

For purposes of construction contract administration, it is important to know who occupies the following positions: the chief contracts officer, the contracting officer, the appeals officer, the Group Chief/PM, and the Project Engineer. The balance of the field crew, the inspectors, and the engineering technicians are referred to as the project staff.

The contracting officer on a given contract is always identified by name on the Invitation for Bids and on the Construction Contract document. The appeals officer is the commissioner of the Department (AS 36.30.625) or their designee (AS 36.30.632).

Shortly after the contract is awarded, the contracting officer will send a letter to the contractor identifying the Project Engineer assigned to administer the contract and the Group Chief/PM who supervises the Project Engineer. The Project Engineer and/or all or a portion of the project staff may be either Department employees or contract employees provided by a consulting engineering firm under a professional services agreement.

## 1.3. Project Engineer/ Delegation of Authority

The Project Engineer is the Department's key employee in construction contract administration. The Project Engineer, whether a Department employee or a consultant, is the designated representative for the Department who is responsible for the administration of the contract in accordance with the plans and specifications and for the performance of the engineering functions necessary to administer the contract. The contracting officer or designee provides the Project Engineer with a written delegation of authority to administer the contract. That delegation spells out the limits of the Project Engineer's authority and designates the Group Chief/PM who will be the Project Engineer's immediate supervisor. The regional director delegates authority to the Project Engineer to sign the SWPPP and other CGP related documents.

The Project Engineer is the single point of contact between the Department and all other parties associated with the contract. All communications from the contractor should be directed to the Project Engineer, allowing the Project Engineer to deal effectively with the contractor.

## 1.4. Project Staff – Assignments, Authority, & Training

The Project Engineer and the Group Chief/PM are responsible for developing the staffing plan for a project. When the Group Chief/PM approves the plan, the positions are filled with available staff and in accordance with collective bargaining agreements or as described in a professional service agreement for consulting engineering services. All project staff members should receive written notification of their initial assignment to a project, but notification may be done verbally. The notification should list the Project Engineer as their immediate supervisor, along with the specific staff responsibilities, authorities, and assignments.

The Project Engineer should review new employees' qualifications and the requirements of the assignment; if any job task or safety-related training is needed (AS 18.60.066), it should be arranged before the start of the assignment, if possible. As the Project Engineer or their immediate supervisor familiarizes each new employee with their assignment, they should review the new employee's responsibilities, authority, relationship with their supervisor and other project personnel, and any other information that will make

the new employee better able to perform in the assigned capacities.

## 1.5. Employee Conduct

Employees should conduct themselves in an ethical, courteous and helpful manner when dealing with the contractor, the public, or other members of the project staff. Rules of conduct apply to all Department employees, including consultant employees.

- The Project Engineer and the contractor must post documents required by law at their field offices.
- See Appendix 18.2 and 18.3 for a list of required documents.

Department policies and Alaska Statutes of interest to employees are available on the web at:

- [http://www.dot.state.ak.us/admsvc/pnp/policy\\_and\\_procedures.shtml](http://www.dot.state.ak.us/admsvc/pnp/policy_and_procedures.shtml)  
(See P&Ps in Sections 2 and 8)
- <http://www.legis.state.ak.us/basis/folio.asp>  
(See AS 39.25.178 and AS 39.52)

The Department intends to provide a safety conscious work environment (SCWE). Employees should report conditions of work that jeopardize their safety or health, to their supervisor or to the Employee Safety Concerns Program (ECP). Each report filed with the Department will be investigated. No retaliation will occur for raising safety or health concerns. See Section 18.18 for SCWE, and the D&ES website for ECP Manual. Employees may also report conditions to an agency outside of the Department.

## 1.6. Federal-Aid Project Oversight Responsibility Agreements

FHWA and the Department have entered into a Stewardship and Oversight Agreement. The agreement assigns responsibilities and tasks to the Department or FHWA as outlined. The FHWA Stewardship and Oversight Agreement is posted at:

[www.dot.state.ak.us/stwddes/dcspubs/assets/pdf/directives/attach/2015/stewardship\\_agreement\\_attach.pdf](http://www.dot.state.ak.us/stwddes/dcspubs/assets/pdf/directives/attach/2015/stewardship_agreement_attach.pdf)

The Department will assume these responsibilities under Section 106 of Title 23: for design, plans, specifications, estimates, right-of-way certification statements, contract awards, and inspections/final

acceptance of projects. Projects are identified as PoDI, NHS, or Non-NHS Projects.

FHWA's focus will be on emphasizing technical and program assistance. FHWA personnel will conduct reviews on PoDIs (Section 7.7) and may occasionally review other projects. All project records are open to FHWA, and reports are to be furnished when FHWA requests them.

FAA and the Department used to have an Oversight Agreement, it was rescinded by FAA on April 8, 2014.

The current responsibilities and tasks of the Department or FAA are outlined in Advisory Circulars and Orders, and the grant agreement. For more information use the following links:

- FAA Advisory Circulars:  
[http://www.faa.gov/regulations\\_policies/advisory\\_circulars/](http://www.faa.gov/regulations_policies/advisory_circulars/)
- FAA Airports Orders:  
<http://www.faa.gov/airports/resources/publications/orders/>
- Airports SOPs:  
<http://www.faa.gov/airports/resources/sops/>

There are further discussions on grant requirements for FHWA and FAA in Section 2.3.

## 1.7. Construction Manual Exceptions

Due to established regional procedures, or variances in project staffing or to the nature of a project; there may be situations where full compliance with the construction manual is either not cost-effective or not practical. In such cases the Project Engineer should document the exceptions in a memo. The memo should be sent through the Group Chief/PM to the Regional Construction Engineer. Regional procedures effecting construction administration should also be documented. The exceptions may not violate federal, state or local law; federal aid requirements; State Policy and Procedures; or D&ES Chief Engineer's Directives.