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430. Preliminary Engineering through Environmental Document Approval

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- 430.3. Project Management Plan (PMP)
- 430.4. Reserved
- 430.5. Environmental Process
- 430.6. Preliminary Design to Develop and Support the Environmental Document Process

430.1. Introduction

The Preliminary Engineering through Environmental Document Approval stage includes all activities from initiating project development authorization to environmental document approval.

430.2. Project Purpose, Need, and Scope

Purpose and Need

The purpose and need statement identifies the objective of and necessity for a project.

A project purpose and need statement is normally found in the planning documentation. If not, it should be in the project startup package.

Project purpose and need is fundamental in developing, analyzing, and evaluating alternatives and may require refinement during project development.

Project Scope

The project scope is derived from the project purpose and need. The project scope has legal significance and should reflect the context and intent of the legislative authorization. Any change in project scope must conform with the purpose and need and be reflected in the project's NEPA documentation.

Project scope should be consistent across a number of different project documents, for example:

- PDA
- ePID
- PMP
- Environmental document
- Federal-aid agreements
- Status reports

The initial project scope for the PDA for design (Phase 2) should come from information in the project startup package. The scope must specifically mention

any included bridge work, non-motorized facilities, Americans with Disabilities Act (ADA) improvements, and high cost construction features. The electronic Project Information Document (ePID) instructions in eWorX provides guidance on the level of scope detail needed. These instructions are found in the eWorX system. The PID provides scope information that populates the Federal-Aid Agreement, which is approved by FHWA.

On Highway Safety Improvement Program (HSIP) projects, the project scope is limited to that work specifically approved by the Chief Engineer in the HSIP funding program.

Project scope may change during the course of project development. Coordinate project scope changes with the Planning, Project Control and Environmental Sections. FHWA, the Director of Program Development, and the preconstruction engineer must approve changes to the project scope. The PDA and ePID are mechanisms used to change project scope and modify Federal-Aid Agreements.

The final project design scope (Phase 2) must match the PDA scope for construction (Phase 4), inclusive of location information.

Schedule

In this context, "schedule" refers to placement by phase (Preliminary Engineering, ROW, Utility Relocation, and Construction) and anticipated funding year within the STIP. This information is found in the project startup package prepared by the planning field office or in the published STIP. Immediately inform the regional preconstruction engineer of any necessary schedule changes because they can affect fiscal year spending plans. The regional preconstruction engineer must inform the planning field office of these changes.

Authorized Funding

Authorized funding levels are shown by project phase on the PDA. As with scope and schedule, the project manager is responsible for monitoring the project budget and expenditures.

When a project's construction estimate increases by 15%, or more, or a budget adjustment of \$250,000 or more (23 CFR 630.106(4)), from the STIP estimate, refer to Section 440 – Scope and Budget Control.

430.2.1. Reserved

430.3. Project Management Plan

The Project Management Plan (PMP) establishes the activities, budget, resources, and schedule for project development. Prepare the initial PMP after project funding is authorized. The PMP is subsequently reviewed and approved in accordance with regional policy.

The PMP is updated throughout project development as needed or at least before the Authority to Proceed through Final PS&E.

The project manager develops the PMP through coordination with support groups. Include the following in the PMP:

1. Project purpose and need, scope, schedule (program year), and funding
2. Support Group activities, durations, work force, and budget necessary to complete the project
3. Studies, reports, permits, and clearances anticipated during the design development cycle;
4. Public Involvement Plan (PIP) outlining the level of public involvement and schedule for such activities
5. Determination of whether the project will be developed as design-bid-build, CM/GC, design-build, lump sum, or utilize alternative contracting
 - a) Design-build procedures are available at:
www.dot.alaska.gov/designbuild
 - b) Lump sum procedures are available at:
<http://www.dot.state.ak.us/stwddes/dcsmisc/asets/pdf/lumpsum/lumpsum0103.pdf>
 - c) CM/GC Manual:

[under development]

Consider FHWA Order 6640.1A and PE At-Risk (see Section 420.1.1) in developing the PMP in the context of expediting project delivery. FHWA Order 6640.1A defines permissible project related activities that may be advanced prior to the conclusion of the National Environmental Policy Act (NEPA) process. Until the project is authorized, and federal funds obligated, there is no guarantee that the project will be eligible for federal funding. If the Preconstruction Engineer approves the use of this order it must be documented

in the PMP and included in the funding approval. See Section 420.1.1 for further information on at-risk preliminary engineering.

A copy of FHWA Order 6640.1A can be found here:

<https://dot.alaska.gov/stwddes/dcsprecon/>

An example PMP format is available under the Preconstruction Forms heading at:

<http://www.dot.state.ak.us/stwddes/dcsprecon/preconmanual.shtml>

430.3.1. Public Involvement Plan (PIP)

Prepare the PIP in accordance with Chapter 5 of this manual, Chapter 7 of the *Alaska DOT&PF Environmental Procedures Manual* (EPM), and 23 CFR 771.111.

430.4. Reserved

430.5. Environmental Process

All projects require an evaluation of their environmental and socio-economic impacts. This section focuses on federally-funded projects. The process for state-funded projects is covered in Section 490.7.

On federally funded-projects, the environmental process follows:

- National Environmental Policy Act (NEPA)
- 23 CFR Part 771 – Environmental Impact and Related Procedures
- NEPA Assignment Program Memorandum of Understanding (MOU)
- The *Alaska DOT&PF Environmental Procedures Manual (DOT&PF EPM)* projects that are assignable under the NEPA Assignment Program MOU

The goal of the environmental process is to complete an approved environmental document in a timely and efficient manner. Completion of the environmental document is on the critical path of nearly all projects.

All projects generally require the following:

1. Purpose and need statement
2. Project scope
3. Identification and development of alternatives
4. Evaluation of environmental impacts

5. Coordination with local governments and other agencies, including federally recognized tribes
6. Public involvement (except as noted in 430.5.4)
7. Selection of a preferred alternative and proposed action
8. A complete and approved environmental document
9. Acquisition or completion of required environmental approvals, authorizations, clearances, consultations, permits, and reviews as necessary

Work closely with environmental staff throughout project development to ensure that the environmental impacts of all project alternatives are considered.

For more information on the Department’s environmental policies and procedures, refer to the appropriate environmental procedures manual and the Statewide Environmental Office’s website:

<http://dot.alaska.gov/stwddes/desenviron>

430.5.1. Environmental Classification

Under the NEPA regulations, there are three environmental classes of action, each having different documentation and compliance requirements. The classes of action are:

- Class I – Environmental Impact Statement (EIS)
- Class II – Categorical Exclusion (CE)
- Class III – Environmental Assessment (EA)

For federally-funded projects, the class of action is a major factor in determining the level of preliminary design development required and the project schedule.

Class of Action (COA) Determination

The COA is determined based on the scope of the project and assessment of the probable impacts of the project’s action. The initial COA determination is based on information provided to the regional environmental manager (REM), which may include scope provided in planning documents and the ePID.

The REM forwards the initial COA recommendation to the NEPA Program Manager for approval (see Chapter 2 of the EPM). The REM documents the appropriate COA on the ePID. If the initial COA is unknown, the REM will indicate this on the environmental page of the initial ePID.

The completed ePID is included in the initial PDA request.

Class I: Environmental Impact Statement (EIS)

If a project is expected to have a significant impact on the environment, it requires an EIS.

The EIS process is described in detail in Chapter 5 of the EPM.

Class II: Categorical Exclusion (CE)

A CE project has no significant individual or cumulative impact on the environment.

Examples of CE project types are listed in 23 CFR 771.117. The CE process is described in detail in Chapter 3 of the EPM.

Class III: Environmental Assessment (EA)

An EA is appropriate if the effects of a project on the environment are not apparent.

The EA process is described in detail in the EPM.

Other Considerations

For any document type, complex resource investigations such as hazardous materials investigations, indirect and cumulative impacts, air quality issues, cultural resource studies, etc., can significantly extend the time required to develop an approved environmental document.

Consult with the REM before releasing draft or final environmental documents.

430.5.2. Identification of Environmental Issues

All projects should strive to avoid important or sensitive cultural, social, and environmental resources to the extent feasible. Initial environmental work for projects typically consists of identifying areas or issues within the project limits, such as but not limited to:

- Wetlands and other water resources
- Essential fish habitat
- Threatened and endangered species habitat
- Contaminated soils
- Water bodies, including floodplains
- Cultural and historical resources
- Wildlife resources
- Anadromous fish streams, including fish passage issues
- Section 4(f) land

- o Parks
- o Recreation areas
- o Wildlife and Waterfowl refuges
- o Historic sites
- Section 6(f)
- Existing land use or municipal transportation plans
- ROW acquisition and residential, farm, and business relocations.
- Air quality
- Noise
- Materials sites
- Disposal sites
- Environmental justice
- Invasive species

Work with environmental staff to identify boundaries of sensitive environmental features as early as possible to determine whether an alternative affects them and whether impacts can be avoided or minimized, or if mitigation will be required. Identification can consist of researching and reviewing existing data and field reconnaissance.

Evaluating existing physical and environmental features requires qualitative and quantitative analysis. For features that do not present unusual or substantive constraints, a general discussion of their presence is adequate in an EA or EIS. More significant features may require greater effort.

Certain investigations, such as noise studies, archaeological surveys, or soil/water contamination, may require technical expertise beyond that of the Department's environmental staff, requiring the assistance of consultants.

CEs still require some environmental reconnaissance work even though they are, by definition, not likely to have any significant or cumulative environmental effect.

430.5.3. Agency Coordination, Tribal Consultation and Public Involvement

Early coordination with local, state, and federal agencies and federally recognized tribes helps determine the type and scope of the environmental document required. Work with the REM to initiate this (see Chapter 5 of this manual and Chapter 7 of the EPM). Agency and tribal consultation are also part of

other coordination processes, such as Section 106 (see Chapter 10 of the EPM).

The requirements in Chapter 5 of this manual and the approved PIP detail the necessary public involvement. Federally-funded projects require some level of public involvement, especially if ROW is required or a protected resource is involved. CEs may not require public involvement if they have minimal impacts, do not require ROW, do not affect protected resources, and are not controversial.

Tribal consultation may be focused on government-to-government (G2G) consultation, defined here as between the federal government (FHWA) and federally recognized tribes (FRT), or may consist of project communication and consultation between the Department and tribes.

While DOT&PF is authorized to consult with tribes under the Section 106 process, for example, FHWA retains responsibility for direct G2G consultation with tribes in accordance with 36 CFR 800.2(c)(2)(ii)(C) and (D), and Part 3.1.3 of the NEPA Assignment Program MOU. Contact with any federally recognized tribe should only be done after consultation and in coordination with the REM and the Professionally Qualified Individual (PQI).

430.5.4. Environmental Analysis

Regional environmental staff analyze and quantify environmental impacts and, if necessary, determine appropriate mitigation measures. The analysis is performed in accordance with the EPM and is documented in the appropriate environmental document

430.5.5. Approvals, Authorizations, Clearances, Consultations, Permits, and Reviews

The environmental analysis and documentation process identifies what approvals, authorizations, clearances, consultations, permits, and reviews are required for the project.

Most of these approvals, authorizations, clearances, permits, and reviews are sought after environmental document approval. Further discussion of these is found in the *EPM*.

430.5.6. Environmental Commitments and Mitigation Measures

The environmental staff will identify any environmental commitments or mitigation measures required for the proposed action. Include these in the

environmental document and in the final design and construction of the project.

430.5.7. Environmental Document Preparation

Regional environmental staff prepares the appropriate environmental documentation (EIS, CE, or EA) as identified in the approved COA and in accordance with the *EPM*.

The environmental document contains the analysis of the environmental and socio-economic impacts and provides required documentation. The environmental document also identifies mitigation measures, if necessary.

430.6. Preliminary Design to Develop and Support the Environmental Document

Preliminary design is all engineering and support group work necessary to develop and support completion of the environmental document.

The duration and level of engineering required depends on the environmental document classification, the complexity of the project, and the environmental issues and impacts present.

Context Sensitive Solutions (CSS)

FHWA mandates the use of CSS for all federally-funded projects. The Department embraces a CSS approach when developing all projects, regardless of funding source. Scale the level of CSS to the complexity of the project and the environmental issues.

430.6.1. Field Reconnaissance

Field reconnaissance is desirable whenever possible as it allows the engineering, environmental, and support group staff to examine the existing conditions. It may also assist in determining additional necessary data.

Assessment of existing conditions should produce an inventory of physical, environmental, cultural, and social features within the study area.

Maintenance and Operations (M&O) is responsible for many recurrent and costly tasks such as snow removal, ditch cleaning, etc., on completed projects, so include the local maintenance foreman in the on-site field reconnaissance. If a field reconnaissance is not conducted, request that the local maintenance foreman provide video or photos of the project as necessary to illustrate conditions and specific concerns. Solicit their comments and coordinate with

them to resolve any conflicts with design/construction interests. If conflicts cannot be resolved, elevate the issue to the regional preconstruction and maintenance engineers.

430.6.2. Development of Alternatives

The development of alternatives depends on the environmental class of action. Consider the existing environment as a baseline to measure the impacts and benefits of the other alternatives. The “no-build” alternative must be carried throughout the process for EA and EIS. It represents the no-action alternative through the same design year as the other build alternatives.

In addition, all classes of environmental actions must consider avoiding or minimizing impacts if wetlands or floodplains are affected (E.O. 11990 & 11988).

Consider ideas and innovative solutions proposed by stakeholders. Seek to develop alternatives that balance the project goals for safety, mobility, community, and the environment while considering budgetary constraints.

Environmental Impact Statement (EIS)

For an EIS, develop preliminary alternatives. Key factors to consider include:

- Purpose and need for the project
- Public comments and concerns
- Avoidance of sensitive environmental, social, and cultural resources
- Avoidance of protected resources
- Avoidance of other physical features that require complex or costly engineering solutions
- Alternative transportation modes or Transportation Systems Management

Once a range of preliminary alternatives has been identified, use a screening process to narrow the list to include only reasonable and feasible alternatives. The screening process normally uses objective criteria and quantitative analysis to eliminate nonviable or infeasible alternatives.

Carry the reasonable and feasible alternatives forward and develop them to a similar level of detail.

Categorical Exclusion (CE)

Alternatives are not developed for CEs - only the proposed action is evaluated.

Environmental Assessment (EA)

Consider the following alternatives on an EA project:

- No-build
- Preferred alternative
- Additional build alternative(s) (optional)
- Avoidance/minimization alternative(s) if the proposed action affects protected resources such as wetlands or floodplains

430.6.3. Design of Alternatives

Design staff develops reasonable and feasible alternatives to the extent necessary to evaluate environmental impacts and develop cost estimates.

Develop a typical section(s) for the improvement based on the approved Design Designation and Project Design Criteria (Figures 1100-1 and 1100-2 in Chapter 11).

Develop preliminary designs to a level sufficient to determine project footprint; environmental, right-of-way, and utility impacts; and estimated total project costs that remain within approved funding limits.

For EAs and EISs, strive for accurate and concise plans that the public can easily understand.

Estimate cost for each alternative and itemize as follows:

- Preliminary Engineering [Design] (Phase 2)
- ROW (Phase 3)
- Construction (Phase 4)
- Utility Relocation (Phase 7)

430.6.4. Support Group Activities

Scheduling and coordinating design activity and project development with support groups is addressed in the PMP. The project manager needs to know what information is required by the support groups and when it is needed.

The level of effort and detail of analysis required by the support groups should be commensurate with the level of environmental analysis required. EISs will require more work, while CEs may require less.

Any work necessary to prepare or support the environmental document is considered eligible for FHWA reimbursement.

The listing of support groups is presented in alphabetical order.

Bridge

The Bridge Section typically designs highway and pedestrian bridges, but is also involved in the design of other structures, such as retaining walls.

The project manager informs the chief bridge engineer when the ATP for PE through Environmental Document Approval is obtained on any project that involves bridge design. The project manager also provides a copy of the PMP.

Provide the Bridge Section with a start-up package so they can begin the preliminary bridge layout, type selection, and cost estimates needed for the bridge type selection process. The Bridge start-up package includes:

- Proposed roadway plan & profile data
- Topographic data in the vicinity of the bridge site including a bridge site survey in accordance with Section 1120.5.4 of this manual
- Roadway typical section
- ROW limits
- Utility locations and utilities to be carried on the new bridge
- Environmental design criteria and commitments
- Preliminary hydraulic and geotechnical recommendations, when available

The Bridge Section will provide a general layout drawing, site plan drawing, and preliminary estimate for each alternative under consideration in the environmental analysis.

Civil Rights

It is the policy of the Department that no person shall be excluded from participation in, or be denied benefits of any and all programs or activities we provide based on race, color, national origin, gender, age, income, or disability regardless of the funding source. This includes Federal Transit Administration, Federal Aviation Administration, Federal Highway Administration, Federal Motor Carrier Safety Association and State of Alaska funds.

Title VI provides that no person shall on the grounds of race, color, religion, sex, national origin, marital status, handicap, or family composition be excluded from participation in, denied the benefits of, or otherwise discriminated against under any program of the federal, state, or local government.

The Department has a Title VI Nondiscrimination Program Plan to ensure compliance with federal civil rights laws and regulations. Each region has civil rights Title VI/Nondiscrimination liaisons.

The Title VI Nondiscrimination Plan is found here:

http://www.dot.state.ak.us/cvlrts/pdfs/TitleVI_Nondiscrimination_Program_Plan.pdf

Title VIII of the Civil Rights Act of 1968 prohibits discrimination in real estate transactions for housing. Housing accommodations made as a result of a highway or airport project must be fair and equitable, without regard to race, color, religion, or national origin.

Executive Order 12898 on Environmental Justice (as well as other USDOT and FHWA orders) requires public consultation for projects that affect a predominantly low-income area or minority community. The purpose is to identify and address disproportionately high and adverse human health or environmental effects of the project on minority populations and low-income populations.

Executive Order 13166 on improving access to services for persons with limited English proficiency (LEP) requires communicating the elements of proposed projects, for public consultation, in languages other than English. It is important to conduct a thorough demographic analysis for the project study area to determine if there is a non-English speaking population. There is no population threshold for required LEP actions.

When a project is located within 50 miles of a community with a federally recognized tribe, there is a separate requirement for GTG consultations as required by 23 USC 135(d)(3) & (e), Executive Orders 13007 & 13175, and P&P 01.03.010. In some areas of Alaska, this consultation may need to be conducted in the native language of the community. The Civil Rights Office has a current list of federally recognized tribes in Alaska.

For all public meetings, the Department and its consultants will document attendance by race, color and gender by using the Public Meeting Sign-in Sheet

found here (race, color and gender are provided on a voluntary basis by attendees):

<http://www.dot.alaska.gov/cvlrts/forms/titlevipublicsigninsheet.pdf>

The quarterly and annual reporting requirements that arise from preliminary design activities are as follows:

- For each consultant contract administered by Design, the contract manager will report to a Title VI/Nondiscrimination liaison using a copy of the contract's Record of Negotiation and Selection (RONS) for Professional Services Agreements. The Title VI/Nondiscrimination liaison will keep and compile these forms for the Annual Title VI/Nondiscrimination Update.
- For each public meeting where the project manager determines that there are no Title VI issues, the project manager will document this finding and send it to the Title VI/Nondiscrimination liaison for the Annual Title VI/Nondiscrimination Update using the Title VI Public Meeting Report form.
- For each public hearing where the project manager determines there are Title VI issues, the Title VI/Nondiscrimination liaison will document them. The Title VI/Nondiscrimination liaison will also document: 1) how these issues were dealt with in the meeting, and; 2) the final resolution of the Title VI issues in the project development process using the Title VI Public Meeting Report form, and compile this information for the Annual Title VI/Nondiscrimination Update.
- For each project where there is a citizen advisory group and the project manager has identified Title VI issues, the project manager will complete the citizen advisory group board breakdown portion of the Title VI Public Meeting Report form and transmit it to the Title VI/Nondiscrimination liaison. The Title VI/Nondiscrimination liaison will keep and compile these forms for the Annual Title VI/Nondiscrimination Update.
- For the Department's annual Title VI/Nondiscrimination Update to FHWA, each regional sends the following information to the Civil Rights Office: 1) a list of all EAs and EISs that found no Title VI impacts, and 2) for all EISs and EAs that did identify Title VI impacts, a short summary of the issues and how the issues were resolved consistent with Title VI.

EAs and EISs must document consideration of impacts on minorities and other groups under the Civil Rights Acts of 1964. They must contain the following standard certification statement:

“This project has been developed in accordance with the Civil Rights Act of 1964 and EO 12898.”

Civil rights forms are found here:

<http://www.dot.state.ak.us/cvlrts/forms.shtml>

Construction

Involve the Construction Section early in project development. Give them the opportunity to provide input on:

- Selection of alternatives
- Constructability of alternatives
- Construction timing and phasing restrictions
- Selection of the preferred alternative

Geotechnical/Materials

Depending on the scope and material requirements, some projects may require an extensive geotechnical investigation. Others may require only an examination of the performance of the existing facility and a review of the as-builts, construction records, and previous geotechnical reports. Geotechnical and materials site investigations are normally performed with regional staff.

For making an initial determination on local material source availability, use the department’s materials site inventory (MSI) that is part of the Geotechnical Asset Management (GAM) Program. The GIS website is found here:

<https://akdot.maps.arcgis.com/apps/mapviewer/index.html?webmap=a3c965428a3b4f5b973d358d9f53096c>

Consult the Regional Materials Section for information relevant to each site and to identify other potential sites not included in the MSI. If there is no information at the project location, or the existing information is insufficient, the project manager in coordination with the Regional Materials should consider conducting a materials site investigation. Section 450.10 includes more detail on material site investigations.

The project manager should convey initial information on alternatives under consideration so the regional engineering geologist and materials engineer can evaluate it. There may be sufficient information for a

reasonable comparison of the alternatives; however, it may be necessary to obtain additional geotechnical data.

If a geotechnical investigation is warranted, perform it in accordance with the Department’s *Geotechnical Procedures Manual*. This manual is online at:

http://www.dot.state.ak.us/stwddes/desmaterials/mat_geology/pop_geotechman.shtml

A draft geotechnical memorandum with preliminary recommendations for design of the project may be prepared. This memorandum supplies information to the Design Section, but is not intended for general publication.

Foundations

Statewide Materials staff perform foundation investigations. A foundation investigation is normally required for a highway bridge or other significant structure.

The investigation is similar to a geotechnical investigation and is in accordance with the *Geotechnical Procedures Manual*. Preliminary recommendations may be made in the pre-environmental document stage.

Hydrology & Hydraulics

Determine the need for the hydraulics engineer’s involvement early in the project scoping. Consider these issues when deciding:

- Is there a bridge proposed on the project? (Note: a culvert installation with a total width of 20 feet or greater, measured along centerline of the roadway, is considered a bridge.)
- Is fill or other physical modification proposed in a floodplain or waters of the United States?
- Does a decision or cost effective analysis need to be made on whether to use a bridge or culvert?
- Are there any new, replaced, or retrofitted culverts proposed on fish streams, or are there any other known fish passage problems that need to be evaluated?*

* **Note:** Refer to the DOT&PF/ADF&G Memorandum of Agreement (MOA) for Design, Permitting and Construction of Culvert for Fish Passage (11/21/02) for specific issues. A copy of this MOA is found at:

http://dot.alaska.gov/stwddes/desenviron/assets/pdf/procedures/dot_adfg_fishpass080301.pdf

For any environmental alternative that encroaches on a floodplain or supports base floodplain development, a Location Hydraulic Study is required per 23 CFR 650.111. Include this study in the Environmental Document.

Fish passage structures can have a significant bearing on project costs and on the significance of environmental impacts. Many fish passage problems are avoided by considering hydraulic factors early in the project development.

In most cases, specific survey data is needed to perform the required hydraulic analysis. Section 1120.5.4 covers the requirements for a hydraulic site survey.

Preliminary hydraulic analysis or recommendations may be necessary to complete the environmental analysis.

Maintenance and Operations (M&O)

Involve the M&O Section early in project development and give them an opportunity to provide input on:

- Existing M&O problems and concerns
- Development of alternatives
- M&O considerations on alternatives
- Selection of the preferred alternative

Planning

Planning field offices perform traffic data collection and forecasting. Planning also assists during the project initiation stage and may assist in public meetings/open houses. Planning field offices are responsible for updating the STIP as needed to account for approved project scope and budget changes.

The design designation should be requested early in the project development process. The project manager requests a design designation for the project from traffic data collection staff. The regional preconstruction engineer approves it.

An approved design designation is necessary to establish project design criteria. See Figure 1100-1 for an example of a design designation form.

Right-of-Way

During preliminary design, the project manager provides ROW staff with preliminary plans for each alternative under consideration. ROW prepares base maps and estimates the probable number of parcels

needed and their acquisition and relocation costs for each alternative.

Each alternative is also assessed in terms of the number and socio-economic effects of residential, farm, and business relocations it causes. The results are reported in a Relocation Study, often in memo format, which is included in the project's Environmental Document. The Relocation Study is utilized, revisited, and updated throughout the project development process.

If there is a public hearing or open house on the project, ROW presents information from the Relocation Study and discusses the acquisition and relocation processes required by the *Alaska Right-of-Way Manual*.

Surveying

The engineering design staff should research the availability of any existing surveys, as-builts, mapping, or imagery that would be helpful in developing the preliminary alternatives.

Depending on the scope of the work (e.g. new construction or 3R) the project manager should determine and convey the survey requirements to the surveying staff. In most cases, a full design survey will be performed during-preliminary design, with additional work during final design as needed.

Traffic and Safety

Consult with the Traffic and Safety Section to:

1. Evaluate existing traffic control devices within the project limits and determine whether to include upgrading those devices in the project development, if not previously identified.
2. Review crashes and propose cost-effective measures to address correctable crashes.
3. Review historical safety requests from the general public and agencies for consideration of implementing cost-effective mitigation measures.

The Traffic and Safety Section assists in the following tasks:

- Traffic data collection and forecasting*
- Crash analysis
- Capacity analysis
- Safety analysis

- Signal warrant analysis**
- Intersection analysis
- Signalized intersection traffic simulations
- Lighting analysis

* **Note:** Support group function for this task varies by region.

** **Note:** The Roundabout First Policy requires that a single lane roundabout be considered at all locations where a new traffic signal is being considered. Justification for not installing a roundabout needs to be included in the Final Design Study Report (See Section 450.5.1).

Evaluate and compare alternatives with each other and with the no-build alternative. You may use a decision matrix or other decision making process to evaluate and select a preferred alternative. For any level of environmental document, the project manager will select a preferred alternative for approval in accordance with regional policy.

Once the preferred alternative is approved, the project manager notifies all affected support groups.

Utilities

For each alternative under consideration, the project manager furnishes plans to the utilities engineer that show line, grade, slope limits, and clear zone widths. The utilities engineer will verify adjustments or relocations necessary for each alternative and rough cost estimates. Consider environmental impacts of utility relocation work.

If additional right-of-way is necessary to accommodate utility relocation, the project manager should forward the request to the ROW Section for inclusion into the ROW cost estimates.

Utility agreements may be drafted in the PE through Environmental Document Approval phase.

430.6.5. Evaluation of Alternatives

For an EIS, the project manager works closely with the REM to determine which alternatives require evaluation. Factors to consider include, but are not limited to:

- Ability to satisfy purpose and need
- Direct and indirect impacts to sensitive cultural, economic, environmental, and social resources and to protected resources
- Avoidance of sensitive and protected resources
- Total cost
- Safety

The alternatives under consideration should be given an interdisciplinary review to ensure that all direct and indirect environmental impacts are identified for each alternative. In analyzing the significance of impacts, consider the context and intensity of each impact and the cumulative effect of all the impacts.

450. Preliminary Engineering through Final PS&E

- 450.1. Introduction
- 450.2. Authority to Proceed
- 450.3. Update PMP and PIP
- 450.4. Reserved
- 450.5. Design Study
- 450.6. Reserved
- 450.7. Final Design
- 450.8. Reserved
- 450.9. Support Group Activities
- 450.10. Material Sources
- 450.11. Material Disposal Sites
- 450.12. Driveway and Approach Road Design and Permitting
- 450.13. Reserved
- 450.14. Local Review
- 450.15. Reserved
- 450.16. Value Engineering
- 450.17. Local Concurrence
- 450.18. Constructability Review
- 450.19. PS&E Review
- 450.20. Final PS&E
- 450.21. Retention of Project Development and Design Files

450.1. Introduction

Preliminary Engineering through Final PS&E begins after approval of the environmental document and receipt of the Authority to Proceed (ATP). It is the final design stage of the project culminating with a bid-ready set of contract documents.

Support group activities include:

- Topographic and ROW surveying
- Design of bridges, retaining walls, or other significant structures.
- Environmental re-evaluation and permitting
- Geotechnical and foundation investigations
- Hydraulic or hydrologic investigation or design
- ROW plans, appraisals, acquisitions, and relocations
- Traffic signal and illumination design
- Utility relocation

450.2. Authority to Proceed

Once the environmental document is approved, submit a PDA request for ATP for PE through Final PS&E (see Section 420.1 for further information). Final design may begin once FHWA has issued the ATP.

450.3. Update PMP and PIP

Update the PMP and PIP using feedback from appropriate support groups.

Once the schedule is updated and ATP to Final PS&E is approved, notify all affected support groups and provide them with the current project schedule. Send a copy of the updated PMP and PIP to the appropriate planning staff.

450.4. Reserved

450.5. Design Study Report (DSR)

The Design Study Report (DSR) summarizes and documents the design features and decisions made during the Environmental process and in final design.

450.5.1. Design Study Report (DSR)

The DSR is a formal report that documents final design decisions for the preferred alternative brought forward from the environmental document.

Include the following sections in the DSR:

1. Description of project location and existing facilities, and purpose and need for proposed project
2. Design standards used, including project design criteria and design designation
3. Reserved
4. Discussion of the final design
5. Typical sections, including shoulder treatment
6. General horizontal and vertical alignment, including location of bridges and other structures
7. Erosion and sediment control
8. Drainage
9. Soil conditions
10. Access control features

11. Traffic analysis. Discuss the traffic analyses done to support the need for specific project features such as:

- Addition of turn lanes
- Widening of shoulders, or
- Installation of traffic signals

Analyses can include:

- Signal warrants
- Capacity analysis, or
- Roundabout analysis

Include a discussion of the existing and projected traffic volumes and patterns as well. Discuss reported crashes as appropriate.

12. Safety improvements. Discuss project specific safety improvement features included that will reduce known or potential safety deficiencies. If the project is an HSIP project, include the original project nomination.

13. ROW requirements

14. Pedestrian and bicycle accommodations, including provision for accessibility by people with disabilities

15. Utility relocation and coordination

16. Preliminary work zone traffic control for the preferred design alternative including any probable detour routes and impacts along those detour routes. Provide determination of whether the project is “significant” per Section 1400.2 of this manual.

17. Pavement design, including life-cycle cost analysis

18. Updated cost estimate for all phases (PE, ROW, Utility Relocation, and Construction)

19. Environmental commitments and mitigation measures. This section should include a summary of all environmental commitments.

20. Preliminary bridge layout

21. Identification and justification of design exceptions and design waivers

22. Maintenance considerations

23. ITS Features. Discuss ITS elements to be incorporated into the project.

Appendices to the DSR should include the following items as applicable:

- Approved design criteria and design designation
- Approved design exceptions and design waivers
- Traffic analyses (signal warrants, capacity analysis, roundabout analysis in accordance with the Department’s Roundabout First Policy, etc.) and speed studies
- Resurfacing, Restoration, and Rehabilitation (3R) analysis
- Systems Engineering Analysis (SEA)
- Approved environmental document
- VE consideration

Be objective and factual when preparing a DSR. Avoid subjective wording such as “inadequate,” “unsafe,” “dangerous,” “deficient,” “insufficient,” or “substandard.” For example:

Don't write: “The shoulder width is insufficient.”

Do write: “The shoulder width does not meet current standards for new construction.”

Don't write: “The horizontal curve is dangerous.”

Do write: “The 5-year crash history of this horizontal curve indicates 11 major injuries and 1 fatality.”

Prepare a draft DSR and circulate for in-house review and comment.

The final DSR is sealed and signed by a professional engineer, signed by the preparer, concurred by the project manager and design group chief, and approved by the regional preconstruction engineer. Distribute copies in accordance with regional policy.

3R Analysis

On 3R projects, perform a 3R analysis in accordance with Section 1160.4.1 of this manual. Include the analysis as an appendix to the DSR.

Systems Engineering Analysis (SEA)

All significant ITS projects require an SEA. Non-significant ITS projects do not require an SEA. See Section 485 for how to distinguish between the two

and procedures for developing an SEA. Include the SEA as an appendix to the DSR.

450.5.2. Design Approval

Approval of the DSR constitutes design approval. Complete the DSR prior to Final PS&E.

The regional preconstruction engineer may waive design approval for advanced ROW acquisitions, utility-only project, or other similar projects.

450.6. Reserved

450.7. Final Design

Per 23 CFR 636.103, *final design* means any design activities following preliminary design and expressly includes the preparation of final construction plans and detailed specifications for the performance of construction work. In the context of this manual, final design is all design work after completion and approval of the environmental document and receipt of ATP for PE through Final PS&E.

Strive for a context sensitive final design that, to the extent practicable, is in harmony with the community it is located in, and preserves environmental, scenic, aesthetic, historic, and natural resource values of the project area.

450.7.1. Reserved

450.7.2. Plan Set

Develop the content and organization of plan sets according to regional policy. -Plans are sealed and signed by the engineer(s) of record. Show environmentally sensitive and restricted work areas in the plans.

Erosion and Sediment Control Plan (ESCP)

Develop an ESCP for all projects, regardless of funding, with disturbed ground that meet either of the following conditions:

- Owned by the Department
- Designed (or design administered by) and constructed (or construction administered) by the Department

See Section 1120.7 for guidance on ESCP preparation.

Traffic Control Plan (TCP)

Develop a TCP to address the safety of motorists, pedestrians, and construction workers on all federal-aid construction projects as required by 23 CFR 630.

Guidance for developing TCPs is found in Chapter 14.

450.7.3. Alaska Standard Plans (ASPs)

ASPs show commonly used plans and details approved by the Department and FHWA for use on projects. ASPs are contained in the *Alaska Standard Plans Manual* available online at:

<http://www.dot.state.ak.us/stwddes/dcsprecon/stddwgeng.shtml>

In accordance with guidance in Chief Engineer's Directive (CED) of January 25, 2019, titled *Alaska Standard Plans, Development and Incorporation*, Standard Plans are not signed and sealed by a professional engineer (PE). This CED is available here:

<http://dot.alaska.gov/stwddes/dcspubs/directives.shtml>

ASPs are adapted from detail drawings that are treated as final drawings and are signed and sealed by a professional engineer in accordance with 12 AAC 36.185. The final drawings are archived at the Statewide Design and Construction Standards office. By sealing the final drawing, the professional engineer certifies their responsible charge for the technical development of the detail drawing used as the basis for the ASP.

The chief engineer approves ASPs for use by the Department.

Each ASP has an associated technical report, called the Standard Plan Development Report (SPDR), prepared by a professional engineer. The SPDR provides background and guidance on the selection, application, restrictions, and qualifying conditions for use of the associated ASP. SPDRs are found here:

<http://dot.alaska.gov/stwddes/dcsprecon/stddwgeng.shtml>

Plans should list the ASPs that apply to a specific project on the project cover sheet, project index sheet, or individual plan sheet. The professional engineer signing and sealing the project plans takes responsibility for inclusion of specific ASPs.

450.7.4. Specifications

Specifications consist of the Standard Specifications, Standard Modifications, and Special Provisions. Specifications describe the material and construction requirements, method of measurement, and basis of payment for the work shown in the plans.

The Alaska DOT&PF Standard Specifications for Highway Construction (SSHC) are approved by the Department and FHWA for general application and repetitive use and are available online at:

<http://www.dot.state.ak.us/stwddes/dcsspece/index.shtml>

Statewide Standard Modifications are additions or revisions to the Standard Specifications and supersede the Standard Specifications. In most cases, Standard Modifications exist to correct errata or deficiencies in the Standard Specifications. A list of current Statewide Standard Modifications is available at the website noted above. Include all Standard Modifications that apply to the work. Standard Modifications that will be overridden by a Special Provision do not need inclusion.

Special Provisions are additions or modifications to the Standard Specifications or Standard Modifications and cover conditions specific to an individual project. Special Provisions supersede Standard Specifications, Standard Modifications, and the plans. Special Provisions can be statewide, regional, or project-specific. A list of current Statewide Special Provisions is available at the website listed above. Each region develops and maintains its own Regional Special Provisions. Choose which Special Provisions to include in the specifications based on the specific requirements of the project.

Open Competition

In accordance with 2 CFR 200.319, specifications for construction contracts must provide for full and open competition. Incorporate a clear and accurate description of the technical requirements for the materials, products, or services required in the construction contract. Such descriptions must not contain language that unduly restrict competition. The description may include a statement of the qualitative nature of the material, product, or service and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform to satisfy its intended use.

Named Brand Products

It is a best practice to avoid the use of brand (trade) name projects in specifications. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a “brand name product or equal” specification may be used. The FHWA Alaska Division has indicated that using a “brand name product or equal” specification provides for sufficient competition; however, the salient features of the named brand product that must be met by the “or equal” product need to be clearly stated.

Special circumstances may require restriction of products to a single brand name:

- The named brand product must match an existing item or system to facilitate operation, maintenance or continuity
- The named brand products is the only one that will perform the required function

When only one named brand product will meet the Department’s need under one of the conditions above, a written determination must be approved by the Contracting Officer prior to advertising the construction contract. See P&P 10.02.050 for further information.

Warranty Clauses

Warranty clauses may be used on federal-aid construction contracts in accordance with 23 CFR 635.413. See the following link for FHWA guidance:

<https://www.fhwa.dot.gov/construction/cqit/warranty.cfm>

Warranty clauses must be for a specific product or feature. General warranties for an entire project are not acceptable, unless the project in question is design-build.

Warranty clauses may not cover work that would be otherwise ineligible for federal-aid participation, including routine maintenance. Warranty clauses may not cover damage caused by others – a contractor cannot be required to warrant items over which the contractor has no control.

Specialty Items

Identify Specialty Items in the Special Provisions in the description of work. A Specialty Item is defined in Section 101-1.03 of the SSHC as “a contract item identified in the contract that requires highly specialized knowledge, abilities, or equipment not

ordinarily available in the type of contracting organizations qualified and expected to bid on the contract.”

450.7.5. Estimates

Estimates are prepared by the engineering design staff and checked by the project manager. The final engineers estimate is approved in accordance with regional policy.

Depending on whether the contract will be unit price, lump sum, or a combination thereof, the design staff will select the appropriate pay items for the project and determine the quantities.

For unit price estimates, the design engineering staff should construct the estimate using standard pay items from the SSHC whenever possible. If a non-standard pay item is used, a special provision will be required for establishing the new pay item, a method of measurement, and a basis of payment. If no historical data exists or the pay item is non-standard, use engineering experience and judgment. Unit price contracts may use lump sum items.

The engineer’s estimate is the final estimate used for contract bidding and programming of construction funding. In addition, the engineer’s estimate includes Indirect Cost Allocation Program (ICAP) and construction engineering costs.

Use AASHTOWare Project software to develop the engineer’s estimate. AASHTOWare Project generates the following when the project goes to advertise and award:

- DBE goals worksheet
- Bid schedule
- Federal-aid agreement
- Coding backup
- Compilation of bids and bid-analysis reports

AASHTOWare Project software is also used to archive the bid results for reference in generating future estimates.

The final engineer’s estimate must be coded prior to the PDA request for Construction funding being submitted to FHWA for approval. Consult with the Project Control for assistance on coding estimates. Coding guidance is available at:

http://dot.alaska.gov/stwddes/dcsprecon/assets/pdf/preconhw/fhwa_improvement_type_code.pdf

Ensure that final coded estimates follow location and improvement type allocations established at project startup. Refer to Section 450.1 for further information.

Lump Sum Projects

The project manager, in consultation with the construction project manager, should consider whether an entire project could be developed as a lump sum, fixed-price contract. Consider lump sum contracting on projects with:

- A well-defined description of work
- A low risk of unforeseen conditions
- A low possibility for changes
- Limited opportunity for contractors to provide less than the required quantity

Further guidance on lump sum contracting is found in the “Lump Sum Project Guidelines”:

<http://www.dot.state.ak.us/stwddes/dcsmisc/assets/pdf/lumpsum/lumpsum0103.pdf>

450.7.6. Bidding and Contract Documents

The regional Contracts Section prepares bidding and contract documents. The project manager should provide the Final PS&E package along with the signed Authority to Advertise (ATA), project bidding description, subcontractable items list, and DBE goal to the contracts officer. Construction contract forms are available at the Design and Construction Standards webpage:

http://www.dot.state.ak.us/stwddes/dcsconst/pop_conforms.shtml

The Contracts Section will assemble a contract bid package and put the project out to bid per Section 470.

450.8. Reserved

450.9. Support Group Activities

It is the project manager’s responsibility to coordinate and schedule design activities with support groups through the development of the Final PS&E.

450.9.1. Bridge Design

The project manager informs the chief bridge engineer when the environmental document is approved and ATP through Final PS&E have been obtained. The

project manager confirms the preferred bridge alternative (alignment, profile and typical section) and design schedule.

For PIH reviews, the Bridge Section provides a refined general layout, site plan, and cost estimate.

The Bridge Section provides 95 percent complete bridge plans for the PS&E review. They also include the draft special provisions, preliminary bid items, quantities, and cost estimate.

Refer to the Alaska Bridges and Structures Manual for procedures related to the preliminary and final structural foundation engineering report.

Bridge provides sealed and signed drawings, special provisions, bid items, quantities, and cost estimate that the project manager incorporates into the Final PS&E.

450.9.2. Civil Rights

Numerous state and federal laws and regulations pertain to civil rights. Contact the Civil Rights Office (CRO) for specific guidance and information not contained in this manual. Provisions to implement these laws are included in various contract “boilerplate” forms and in the specifications. Provisions for state-funded and federal-aid projects ~~contracts~~ are similar, but not identical.

Disadvantaged Business Enterprise (DBE) Program

The purpose of the DBE program is to provide an equal opportunity to participate in construction contracts and subcontracts for businesses owned and controlled by persons who are socially and economically disadvantaged. The requirement for DBE on federal-aid projects is covered in 49 CFR Part 26.

For all federal-aid projects, provide a copy of the final engineer’s estimate to the Construction Section at least one week prior to the anticipated advertising date. The Construction Section will prepare the DBE Goals Worksheet and submit it to the CRO for approval. The CRO will finalize the DBE Goals Worksheet and prepare the DBE Goal memo and Form 25A-324 DBE - Subcontractable Items list. They will transmit these documents to the Construction Section for review and concurrence. If acceptable, Construction will transmit them to the project manager and the Contracts Section.

The goal must be refreshed if the project is not advertised within three months of the goal setting or if there is a change in the engineer’s estimate.

On-the-Job Training (OJT) Program

The purpose of the OJT Program is to train and employ minorities and women in the construction industry. The requirement for an OJT Program is covered in 23 CFR 230.111.

On all federal-aid projects, coordinate with the Construction Section in preparation of the OJT Goal(s) at least one week prior to the anticipated advertisement date. Submit the final engineer’s estimate to the Construction Section who will calculate the goal(s) based on the basic bid and will then submit it to the CRO for approval. Once approved, the CRO will issue the OJT Goal via memo to the Construction Section. Upon review and acceptance, Construction will transmit the memo to the project manager and Contracts Section.

The goal(s) must be refreshed if the project is not advertised within three months of the goal set, or there is a change in the engineer’s estimate.

The CRO establishes and approves OJT goals on federal-aid highway projects that can support this program. The OJT goal is then added to the contract documents before advertising. Include provisions for Section 645 -Training Program - in the specifications.

Title VI

Pursuant to the Civil Rights Act of 1964, the Department has prepared a Title VI/Nondiscrimination Program Plan to ensure compliance with federal civil rights laws and regulations. The Program Plan stipulates clauses to be included in construction contracts, professional service agreements, and property actions. It also places coordination and reporting requirements on project managers during the project development and public involvement processes.

Copies of the Program Plan may be obtained from the Civil Rights Office.

450.9.3. Construction

Include construction staff in all plans reviews to provide feedback on constructability, materials, scheduling, specifications, and cost issues. Consult with construction on environmental permit stipulations, commitments, or construction restrictions to ensure that the project can be built without violations.

450.9.4. Contracts

The Contracts Section will assist in compiling, printing, and distributing plan review sets. This usually includes inserting the necessary contract boilerplate language into the PS&E review documents.

They also compile the final PS&E and incorporate it into a bid package that goes out for advertisement.

450.9.5. Environmental

Environmental staff typically perform several functions during final design, including obtaining all required approvals, authorizations, clearances, consultations, permits, and reviews; re-evaluation of the environmental document, checking that all necessary environmental commitment and mitigation measures are incorporated into the plans; and assisting design with any special environmental details, plans, or specifications that may be required.

Approvals, Authorizations, Clearances, Consultations, Permits, and Reviews

Some approvals, authorizations, clearances, consultations, permits, and reviews must be obtained during the NEPA process. Most of these will be obtained after environmental document approval. Work with environmental staff to ensure that the appropriate information and plan sets are submitted as required to resource agencies for their review and approval.

Environmental Re-evaluations

The purpose of an environmental re-evaluation is to determine if the environmental document (EA/FONSI, EIS/ROD) or CE designation is still valid before proceeding with a major project approval or authorization.

A re-evaluation is required per 23 CFR 771.129 and EPM Section 6.2 prior to requesting the following ATPs:

- PE through Final PS&E (final design)
- ROW Appraisal and Acquisition
- Construction

After a project has received an approved environmental document, there are other circumstances that trigger the need for a re-evaluation:

- The project, or a phase of the project, is proceeding to the next major federal approval (i.e.

final design, ROW appraisal and acquisition, and construction.)

- When a major step to advance a project has not occurred within three years
- When there is an appreciable change in the scope or design that could result in revised effects
- Changes to laws or regulations potentially affect the conclusions of the original environmental document

Coordinate with the REM regarding re-evaluations. The REM will determine what effects any project changes or changes in the effected environment may have on the validity of the environmental document and consult with the NEPA Program Manager. Procedures for re-evaluations are covered in Chapter 6 of the EPM.

Environmental Commitments and Mitigation

Environmental commitments and mitigation measures detailed in the approved environmental document and necessary permits are incorporated into the project plans and specifications.

Environmental staff may also help develop project specific Best Management Practices (BMPs), recommend erosion and sediment control measures, and review erosion and sediment control plans.

450.9.6. Geotechnical Investigations (Centerline, Materials Source, and Foundation)

A geotechnical centerline, foundation, or material source investigation can be initiated during the design stage, or may be initiated in the preliminary project development stage as a reconnaissance investigation and continue into the design development stage.

Materials staff or consultants conduct geotechnical investigations and prepare a final geotechnical report, in accordance with the *Alaska Geotechnical Procedures Manual* and the *AASHTO Manual on Subsurface Investigations*.

The purpose of a geotechnical investigation is to:

1. Determine the nature of the geotechnical characteristics of the project site, including the surface conditions, geological hazards, and the underlying earth materials along the alignment
2. Assess foundation conditions at the site of structures

3. Recommend structural design parameters for earthwork and foundations
4. Estimate the availability and characteristics of construction materials
5. Identify and make recommendations for resolving special geotechnical problems such as soft ground, slope stability, thaw-unstable permafrost, and rock excavation

Centerline/Material Source Investigations

Centerline investigations are normally completed in support of design of the preferred design alternative, and consist of both centerline and material source investigations (see Section 450.10 for a discussion of material sources) including test borings, test pits, mapping, sample analyses, and preparation of a final report with recommendations for design. Limited centerline and material source investigations may also be completed to assist in evaluation of project alternatives.

To support the field investigation, the project manager provides:

- Line and grade data (existing and proposed)
- Cut and fill locations
- Earthwork quantity estimates
- Anticipated drainage provisions

Generally, for centerline investigations, the alignment is staked and stationed in the field or provided in an electronic format from which the geologist prepares an exploration plan for the regional materials engineer's and project manager's approval.

The project manager or lead designer should accompany the geologist on a field review of the alignment before beginning the field investigation. The project manager or principal designer may return for firsthand review of problem areas during field investigations.

As soon as the results of the field investigation are analyzed, the regional materials engineer submits a memorandum with interim design recommendations and a preliminary report to the project manager.

The final geotechnical report is normally completed by the geotechnical engineer or certified professional

geologist that conducted the investigation after the final alignment, grade, and geometry have been selected. The report should describe surface characteristics and soil and rock conditions, and make design recommendations. The report is submitted to the project manager upon completion.

Foundation Investigations

Perform foundation investigations where structures such as bridges, buildings, or retaining walls are planned.

Foundation investigations are directed by the state foundation engineer, statewide or regional geotechnical engineer or licensed geologist, or geotechnical engineering consultants.

Foundation investigations look at surface and subsurface site conditions at the location of foundation units. The purpose of the investigation is to provide the designer with information on the engineering properties of the natural material for use in the foundation design.

The foundation engineer provides an exploration plan for the foundation investigation. The plan is based on the preliminary layout of the structure, which is normally completed before undertaking the investigation. Provide structure site map and plan/profile information to the foundation engineer for use in developing an exploration plan.

Complete the foundation investigation and geotechnical report in accordance with the *Alaska Geotechnical Procedures Manual* and the *AASHTO Manual on Subsurface Investigations*.

The final foundation report is normally completed after selection of the final structure location and then submitted to the project manager.

450.9.7. Hydrology & Hydraulics

The statewide or regional hydraulics engineer may remain involved in a project into final design if there are any of the following features:

1. Culverts 48 inches or larger, or a bridge structure. In this case, a hydraulic and hydrologic summary is required per Section 1120.5.6. Cross culverts 48 inches in height, or greater, should be evaluated for failure due to hydrostatic and

hydrodynamic forces, erosion, saturated soils, or plugging by debris per Section 1120.5.1

2. Floodplain analysis. Generally, the Location Hydraulic Study (see Section 430.6.5 Hydrology & Hydraulics) is completed during preliminary design, but final analysis may continue into final design
3. Riprap slopes in bodies of water
4. Fish passage design

The statewide hydraulics engineer is responsible for the hydrologic and hydraulic designs of all bridge projects. Regional hydraulics engineers are responsible for all single and multiple culvert installations not considered bridges (e.g. spans of less than 20 feet, measured parallel to centerline of roadway and out-to-out of culverts) and other drainage designs requiring a report.

All hydrologic and hydraulic reports must be sealed and signed by a professional engineer. If a hydrologic or hydraulic report is prepared by a consultant, the hydraulics engineer will review it and provide comments to the project manager prior to the report's finalization. The project manager will provide responses to all comments made by the hydraulics engineer.

The hydraulics engineer should review all changes or addenda related to hydraulic designs prior to the start of construction.

Some hydraulic designs may be prepared by the design staff and then checked by the regional hydraulics engineer.

450.9.8. Maintenance & Operations (M&O)

Consult M&O staff early in the final design stage and include them in all plan reviews.

M&O will comment on any design, maintenance, or operational problems with an existing facility and should comment on features that lower M&O costs. Designers should always remember to include M&O costs in life cycle and benefit-cost analyses.

450.9.9. Right-of-Way (ROW)

The ROW Section in each region obtains and manages the land interests necessary for construction, operations, and maintenance of capital projects, in accordance with the *Alaska Right-of-Way Manual*. This process involves:

1. Identifying real property and land interests based on design plans
2. Researching titles to properties to be acquired
3. Preparing ROW plans, with measurements of areas needed
4. Appraising the fair market value of lands needed, including affected improvements (The receipt of the Authority to Appraise and Acquire [AAA] starts the appraisal process)
5. Negotiating property acquisitions
6. Relocating any displaced families and businesses
7. Certifying the Department's ownership or land interest
8. Controlling encroachments and disposing of lands no longer necessary for public use
9. Preparing programming requests for the project manager's approval

ROW tasks 1-3 may begin in the preliminary design and completed during final design.

ROW task 4 may be done during preliminary design prior to completion of the environmental document – see Subsection 420.2.1.

After environmental document approval and ATP for PE through Final PS&E, ATP for AAA may be requested from FHWA. The receipt of AAA starts the appraisal and acquisition process.

Design plans serve as the basis for the ROW plans. Closely coordinate design changes affecting the amount or location of required land with ROW and other support groups.

Design staff needs to give special consideration to access and space necessary to construct the project. Obtain temporary construction permits or temporary easements for any work space needed beyond the ROW and easement lines.

Property owners may request that construction items be added to the plans. The negotiator submits such requests for project manager approval, on a Memorandum of Agreement (MOA), or a Memorandum of Understanding (MOU), form. After successful negotiations, ROW processes the legal and payment documents, arranges for clearing the

acquired right-of-way of any improvements, and manages any relocation of families or businesses.

Hazardous Materials

The presence of hazardous materials or hazardous waste can significantly affect appraisals. It is important that suspect parcels be identified and investigated early in the project development process, usually as part of environmental activities, so that any problems can be quantified and managed in time to minimize delay in the appraisal process.

Eminent Domain

If negotiations fail or title complications exist, and if administrative settlement at a higher-than-market price is imprudent or unsuccessful, initiate eminent domain proceedings through the Department of Law (DOL).

Approval to proceed with acquisition through condemnation is reserved for the preconstruction engineer. The DOL handles subsequent proceedings. These proceedings significantly affect project schedules and budgets. The proposed taking must be for the greatest public good and the least private injury.

If an eminent domain action is probable, the project manager needs to prepare a decisional document (DD). This DD explains to the landowner and DOL the basis for the Department's decision to acquire property and documents that DOT&PF has selected the project location most compatible with the greatest public good and the least private injury. In the DD, include the following:

1. Summary of relevant project background information
2. Studies that discuss the design alternatives and impacts
3. The public benefit and private loss of the property acquisition
4. A discussion of the necessity of acquiring the property through eminent domain

Department of Natural Resources (DNR) Land Issues

A DNR *Tidelands Lease* may be required for permanent placement of fill or structures on state tidelands.

A DNR *Tidelands Permit* may be required for certain activities of a temporary nature on state tidelands.

A DNR *Land Use Permit* may be required for constructing projects on state-owned lands or crossing state-owned lands for access. Because the state owns most land below the ordinary high water line of navigable streams and lakes, this permit is required for most activities in waters of larger streams.

ROW Certification

When all the ROW is acquired or right of entry obtained, the chief ROW agent certifies the project and signs the project certification form when circulated by the project manager before requesting construction authority.

If specifically listed on the invitation for bids, make ROW information available to bidders.

450.9.10. Surveying

Additional topographic or boundary surveying may be required in support of the final design or determination of ROW lines. The project manager should alert the Survey Section of any additional pick-up work as soon as possible so that the work is scheduled.

450.9.11. Traffic and Safety

The Traffic and Safety Section may continue to work on those items noted in Section 430.6.5. In addition, they may work on or assist in preparing plans, specifications, and estimates for:

1. Traffic control
2. Roadside barrier analysis and design
3. Signing and striping
4. Signals systems
5. Illumination systems
6. Cost-effective crash and historical safety request mitigation measures identified during preliminary design

450.9.12. Utilities

The project manager furnishes plans to the utilities engineer showing line, grade, slope limits, and clear zone widths. These plans are given to each affected utility company. The utility determines the adjustments and relocations necessary to avoid conflict with the project (which may warrant revising design plans), designs the changes to its facilities, and prepares plans and cost estimates to support the relocation agreement. In some cases, DOT&PF or a

consultant performs the utility relocation design for relocation work to be included in the contract.

The utility engineer drafts relocation agreements for all affected utilities. All of the utility relocation design work and drafting of utility relocation agreements may be done under Phase 2.

If additional ROW is necessary to accommodate utility relocation and if it is to be acquired by the utility company, departmental approval is necessary before authorizing the utility company to begin appraisal and acquisition.

Prepare and submit a PDA request for Utility Relocation. (See Section 420.2.1) Approval and execution of utility agreements is required before utility relocation work begins.

Relocation may be performed by the utility company, by a contractor managed by the utility company or as part of the Department's construction project.

450.10. Material Sources

A material source is a location where sand, gravel, rock, or other material may be extracted for use on a project. These types of materials may come from an existing commercial source, but when no commercial source is available, or in order to provide competitive bidding when only a single commercial source is available, DOT&PF may want to consider making a Department-furnished site available for use.

Give special consideration to remote rural projects that require borrow, processed aggregates or rock. It is preferable to use local material sources to the extent possible. Whether materials meeting the project requirements are obtainable in proximity to (locally) the project or must be barged in has a significant effect on project cost and schedule. Providing accurate information on the quality and quantity of locally sourced materials, or clearly delineating that imported materials will be required to meet specifications, reduces risk to bidders and gives the department better pricing.

Best practices for using local material sources on remote rural projects are detailed in the following flow charts:

- Figure 450-1 Determine Local Material Category (Part 1)
- Figure 450-2 Determine Optimal Use of Local Materials Sources (Part 2)

- Figure 450-3 Permits and Landowner Agreements (Part 3)

Tasks shown in Figure 450-3 are intended to provide a fair bidding environment. Items in shaded boxes are most critical to ensuring this and project managers are encouraged to complete these work items during preconstruction.

The standard specification for a material may be modified at the discretion of the project manager after consultation with regional materials section in order to make locally available materials usable.

Part 1: Determine Local Material Availability and Categories (Ref: Figure 450-1)

For making an initial determination on local material source availability, use the Department's Materials Site Inventory (MSI) that is part of the Geotechnical Asset Management (GAM) Program. The GIS website is found here:

<https://akdot.maps.arcgis.com/apps/mapviewer/index.html?webmap=a3c965428a3b4f5b973d358d9f53096c>

Consult the Regional Materials Section for information relevant to each site and to identify other potential sites not included in the MSI. If there is no information at the project location or the existing information is insufficient, the project manager in coordination with the regional materials engineer should consider conducting a materials site investigation.

Suitability is determined by the material's conformance with the *Standard Specifications for Highway Construction* and any modifications to those specifications.

Part 2: Determine Optimal Use of Local Material Sources (Ref: Figure 450-2)

Imported materials are those brought in from outside the vicinity of the project. Give consideration to mode of transportation: whether materials can be hauled in via an ice road or winter road or must be barged.

When the local material category is "suitable only for some material types", the designer is encouraged to consider ways to make the local material suitable by modifying the standard specifications, blending with imported material, or making modifications to the

typical sections, including considering technologies such as geosynthetics or chemical treatments. Consult the Regional Materials Section on how and when materials and specifications can be modified to provide acceptable performance.

Part 3: Permits and Landowner Agreements (Ref: Figure 450-3)

Tasks shown in this figure are intended to provide a fair bidding environment. Items in shaded boxes are most critical to ensuring a fair bid environment and project managers are encouraged to complete these work items during preconstruction.

Include all landowner agreements and permits in contract appendices.

A Fair Bid Letter is a written guarantee from a private material site owner that all bidders will be given the same price. It should include the actual royalty rates for materials obtained from the material site. The Project Manager obtains the Fair Bid Letter.

ROW agreements may include but are not limited to Right of Entry, Temporary Construction Easement, Temporary Construction Permit, and permanent right-of-way.

Material Sales Agreements are obtained by the joint effort of the Project Manager and ROW Section.

Obtaining these agreements can be time intensive and should be initiated early.

When a Mandatory Source is used, complete a public interest finding in accordance with P&P 10.02.013.

Information to include in the Bid and Contract Documents

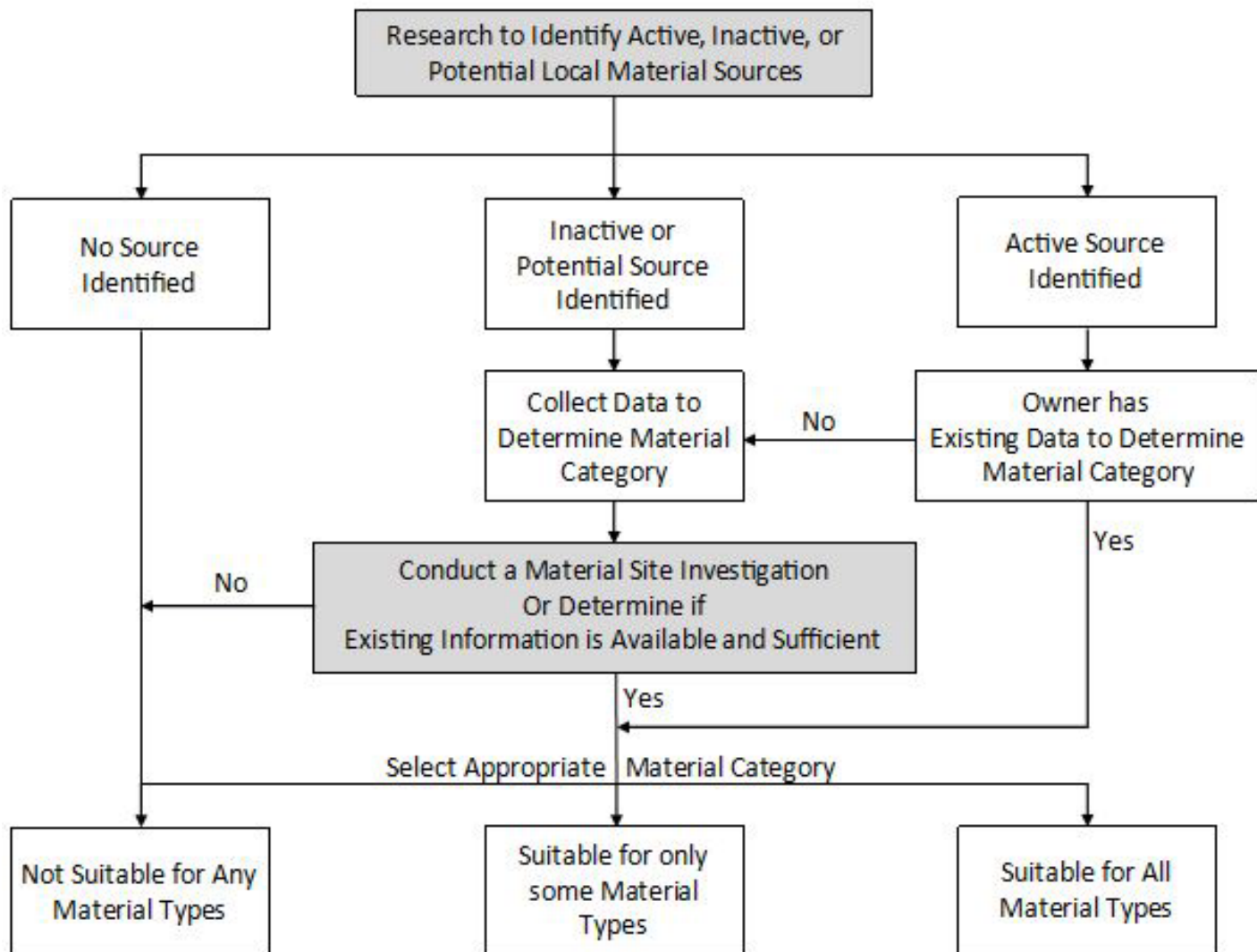
When materials are anticipated to be imported, identify all pay items expected to be imported in a Special Notice to Bidders. Additional information may be included on the plans or in the special provisions.

When a Material Site Agreement is obtained for the project, include a copy in an appendix to the contract.

Fair bid letters shall be included as supplemental information at advertising.

When an Available, Designated, or Mandatory Materials Source (see SSHC Section 106-1.02 for definitions of these) is used on a project, provide available site-specific information as supplemental information to bidders.

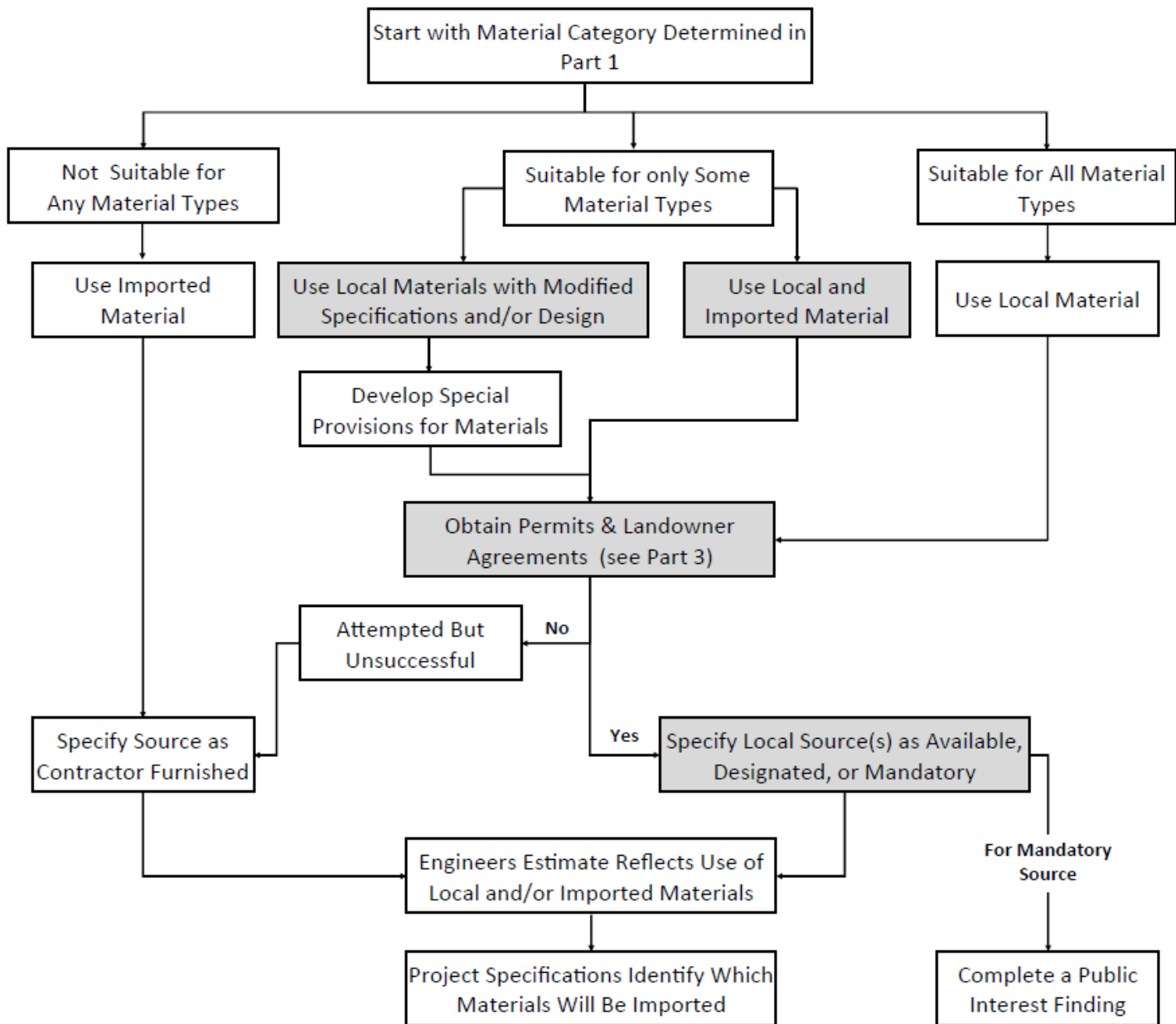
Include copies of all permits and landowner agreement in an appendix to the contract.



Note: Items in shaded boxes may require extra effort in the preconstruction phase but add project value by potentially minimizing the need for imported materials, reducing the contractor's effort and uncertainty during bidding to obtain permits and agreements, and providing a fair bidding environment.

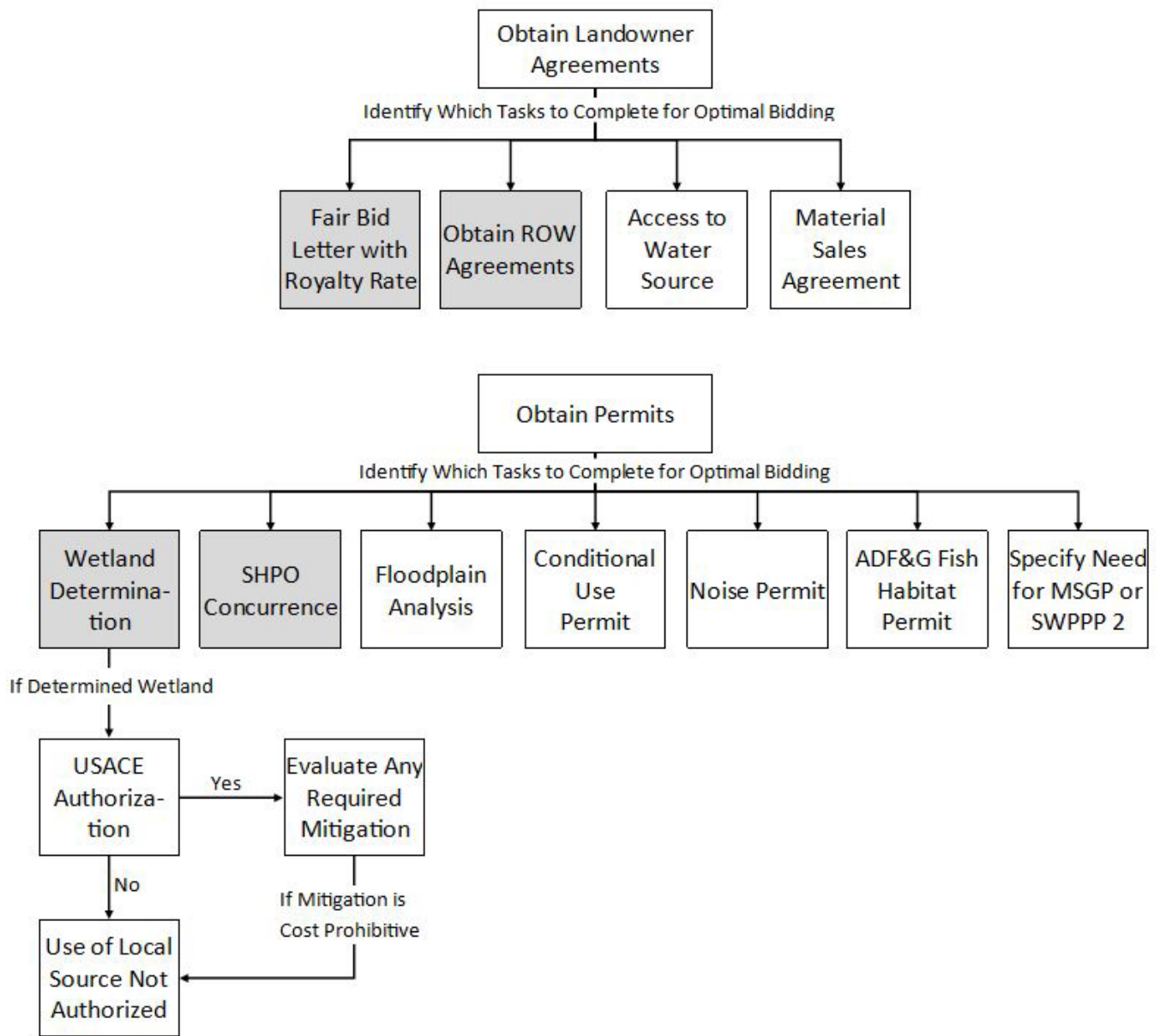
Once Material Category is determined,
Proceed to Part 2 Flow Chart

Figure 450-1
Local Material Sources on Rural Projects Flow Chart
Part 1 – Determine Local Material Category



Note: Items in shaded boxes may require extra effort in the preconstruction phase but add project value by potentially minimizing the need for imported materials, reducing the contractor's effort and uncertainty during bidding to obtain permits and agreements, and providing a fair bidding environment.

Figure 450-2
Local Material Sources on Rural Projects Flow Chart
Part 2 – Determine Optimal Use of Local Material Sources



Note: Items in shaded boxes are most critical to ensuring a fair bid environment and project managers are encouraged to complete these work items during preconstruction.

Figure 450-3
Local Material Sources on Rural Projects Flow Chart
Part 3 – Permits and Landowner Agreements

Table 450-1 provides a matrix defining responsibility for obtaining rights to material sources.

Table 450-1
Material Source Responsibility Matrix

	Contractor-Furnished Source	Mandatory Source	Designated Source	Available Source
Who owns the subsurface rights?	It depends, see narrative	The Department must obtain rights	The Department must obtain rights	The Department must obtain rights
Who obtains permits?	Contractor	Department	Department	Department or Contractor
Materials Report required	No	Yes	Yes	See below
Who prepares mining and reclamation plan?	Contractor – acceptable to Department	Department	Contractor	Contractor

The following definitions of the various types of material sources are derived from Section 106-1.02 of the SSHC:

Contractor-Furnished Source: A material source that is from a commercial plant or any material source that is not identified-below.

Mandatory Source: A material source required for use by the Department. A Public Interest Finding (PIF) is required to designate a material source as mandatory (See P&P 10.02.013 and 23 CFR 635.407).

Designated Source: A material source that is made available to the contractor, but is not required for use.

Available Source: A material source identified as available for use to the contractor. The Department makes no guarantee as to the quality or quantity of material available. Provide any available information as supplemental information and note its availability in the Notice to Bidders. The contractor is responsible for making their own determination of the quality and quantity of material available.

Excluded Material Source: A material source that is excluded from use. It may be considered by the contractor as a contractor-furnished source, unless it is

identified in the contract as an **Excluded Materials Source**.

To use data from a materials report for a mandatory or designated material source, it must be a project specific report.

The permits necessary for a material source can be numerous and may include:

- Wetlands
- Floodplain
- State Historic Preservation Office (SHPO)
- Conditional use permit
- Noise

Obtain rights to use or otherwise develop a material source prior to advertising a project when it is the responsibility of the Department as indicated in **Table 450-1**.

Address permits to be obtained by the Department in final design. Permits to be obtained by the contractor and the mining and reclamation plan will be obtained during construction.

450.11. Material Disposal Sites

Many projects will generate unusable or excess materials such as clearing, grubbing, unsuitable

unclassified excavation, and excess unclassified excavation.

Cleared and grubbed material may be burned, buried, or otherwise disposed. The contractor will comply with local laws pertaining to open burning and obtain a Department of Environmental Conservation (DEC) air quality permit when required.

Unusable or excess materials can be buried in non-structural fill sections indicated on the plans

Disposal of unusable or excess material can be accomplished on-site with a state-furnished disposal site or off-site with a state or contractor furnished disposal site or a commercial landfill.

450.11.1. State-Furnished

Designers should consider non-environmentally sensitive upland areas within the right-of-way limits for material disposal. Also consider slope flattening on adjacent segments of roadway.

These areas should be accounted for in the environmental document process and the plans should indicate their locations and the conditions for wasting the material such as vegetating, etc.

450.11.2. Contractor-Furnished

If no State-furnished material disposal areas are made available or they are not adequately sized, the contractor will either secure his own material disposal site or use a commercial landfill.

450.12. Driveway and Approach Road Design and Permitting

The Department has adopted regulations (17 AAC 10) pertaining to the legal requirements for driveways and approach roads placed within its highway ROWs. Those portions of the driveway within the ROW are considered encroachments, and the property of the state, but construction, maintenance, and liability are at the expense of the lands served.

450.12.1. Driveway and Approach Road Design Standards

Section 1190, presents Department standards for driveway and approach road design on highways, streets, and roads it administers or maintains.

Section 1190 applies to all new driveway and approach roads designed and constructed by the Department.

Section 1190, as published in December 1998, applies to:

- All existing driveways and approach roads
- Design and construction of all new private driveways and approach roads applied for and built by the permit applicant
- All existing driveways and approach roads reconstructed or modified by a Department highway or road project

Driveways with permits (considered encroachment permits by state law) issued prior to April 1, 1986, are not required to conform to the standards presented in Section 1190 unless the Department determines the driveway must be changed or relocated for public safety. A new permit is required if a landowner changes the land use, relocates the driveway or approach road, or changes the geometry.

All driveways or approach roads upgraded or constructed on, or after April 1, 1986, must conform to the requirements of Section 1190, as published in December 1998 version of the HPCM, unless the Department makes an exception in writing through a design waiver. This exception is for project related driveways and is not for new driveway applications.

450.12.2. Driveway Permit Procedures

Do not acquire driveway permits as part of the project development and construction process.

Existing driveways and approach roads (herein referred to as an approach) should be located and noted on the project plans. At existing driveways and approach where there is no record of a permit:

1. Determine if the driveway or approach creates an unsafe condition or a traffic operations issue (both considered a “problem”).
2. If a problem exists, the driveway or approach should be removed subject to the extent that a permit would not be issued for it “as-is.” Notify the Permits Officer so that an attempt can be made to contact the property owner and to determine whether the property owner intends to apply for a permit for an alternate access location. If an alternate access location is approved, construct it as part of the project.
3. If it doesn’t create a problem, reconstruct it as part of the project.

4. If the driveway or approach has no permit and appears recently constructed (e.g. after project development commencement) but does not create a problem, then notify the Permits Officer so that the property owner can be contacted and advised of the permit application process requirements. If a permit application is submitted and approved, include reconstruction of it in the project plans. If a permit application is not submitted or approved, it is considered an unauthorized encroachment per AS 19.25.220-250.

450.12.3. Driveways in the Project Plans and As-Builts

Existing driveways and approach roads onto state roads and highways shall be shown in the project plans and noted for removal, relocation, improvement or retention as-is.

The as-built plans and driveway summary constitutes a valid driveway permit for all driveways and approaches reconstructed or allowed to remain as part of the project, whether or not there was a prior permit, unless otherwise noted. Provide a copy of the as-built driveway summary to the regional Permits Officer.

A driveway permit obtained via the construction as-built plans satisfies the landowner's requirement for permitting. The landowner is not required to take additional steps to permit the driveway or approach unless they wish to:

- Change the land use of the property served by it
- Change the location of it
- Otherwise modify it

If any of the aforementioned changes occur, the landowner is required to obtain a new driveway permit.

450.13. Reserved

450.14. Reserved

450.15. Plans-in-Hand (PIH) Review

Plans-in-Hand review consists of an office review of the approximately 75-percent-completed plans, specifications, and cost estimate, and a field review of the proposed project site. The PIH review:

- Ensures conformity with project scope and the approved project design criteria
- Verifies environmental conditions and impacts

- Reviews design details and verifies technical recommendations
- Assesses the cost-effectiveness of the design and accuracy of the construction cost estimate
- Evaluates the quality of the product

In accordance with regional policy, the project manager will determine whether to conduct a PIH review.- The project manager allows sufficient time for review of the documents and schedules a meeting to discuss the PIH review comments.

Distribution of review documents for all projects is normally to the following:

- Design
- Bridge
- Construction
- Statewide Materials
- Regional Planning
- Right-of-Way
- Environmental
- Regional Materials
- City or municipality having local planning authority
- Utilities
- Borough
- Surveying/Locations
- Traffic and Safety
- Review engineer
- Maintenance and Operations
- Other involved state/federal agencies
- Consultant(s) (if used)

450.16. Value Engineering (VE)

Department policy requires that all projects with a total estimated value equal to or greater than \$40 million be considered for a VE analysis. For those projects, document the decision to use or not use value engineering in the DSR.

A VE analysis is required for bridge projects on the National Highway System (NHS) with an estimated cost of \$40 million or more; for all other projects on

the NHS, an analysis is required when the estimated total cost is \$50 million or greater, per 23 CFR 627.5.

The total estimated value of a project includes costs for:

- Design (Phase 2)
- ROW (Phase 3)
- Construction (Phase 4)
- Utility Relocation (Phase 7)

A VE analysis is best performed as early as practicable in the design stage. On projects selected for a VE analysis, consult with the regional VE coordinator and follow procedures specified in P&P 05.01.030.

450.17. Local Concurrence

AS 35.30 requires coordination of projects with municipalities, communities, and villages within, or near, the project limits. Copy the planning field office on all correspondence.

Municipalities

Except as noted later, submit plans and specifications for all state facility construction projects within a municipality and all municipal facility projects to the planning commission along with a formal letter requesting they take the following action:

- Review and comment on the plans and specifications
- Complete a specific review to address compliance with municipal planning and zoning ordinances, and other regulations

Maintenance projects are excluded from this requirement.

A template letter for this purpose is shown in **Figure 450-4** of this section. An electronic version of this is found on the Preconstruction Resources webpage:

<http://dot.alaska.gov/stwddes/dcsprecon/index.shtml>

Submit the plans and specifications at the earliest time they are sufficiently developed for review of compliance with local planning and zoning ordinances and other regulations.

If the municipality fails to comment within 90 days, the Department may proceed with the project.

For written comments received within the 90 day period, the Department will:

- Bring the project into compliance with planning and zoning ordinances or other regulations per AS 35.30.020, or seek a waiver from municipal planning authority.
- Consider comments to the extent practicable and provide written responses.

AS 35.30.010 states that prior approval by a municipal planning commission is not required before the construction of a highway or local service road if:

1. The Department and the municipality have entered into agreement for the planning of the project under [AS 19.20.060](#) or 19.20.070 and the plans for the project are completed in accordance with the terms of that agreement;
2. The municipality has adopted a municipal master highway plan under [AS 19.20.080](#) and the highway or local service road is consistent with the plan adopted; or,
3. The Department has entered into agreement with the municipality for the planning of transportation corridors under [AS 19.20.015](#) and the plans for the project are completed in accordance with the provisions of that agreement.

For maintenance projects within a municipality to be completed using private contractors, send a letter stating the project scope and estimated advertising date to the municipality's planning director.

Communities with a Community Council

For projects located within one-half mile of the boundary of an area represented by a community council established by municipal charter or ordinance, send a formal letter to the community council requesting that they review and comment on the project plans and specifications.

A template letter for this purpose is shown in **Figure 450-5**. An electronic version of this is found on the Preconstruction Resources webpage.

Villages

For projects located within two miles of a village, send a formal letter to the community council requesting that they review and comment on the project plans.

A template letter for this purpose is shown in **Figure 450-6**. An electronic version of this is found on the Preconstruction Resources webpage.

450.18. Constructability Review (CR)

A CR is a plan review involving those with relevant construction experience and expertise. A CR is typically done in conjunction with a PIH for PS&E review.

The purpose of a CR is to ensure the project is biddable and buildable; that the contract documents clearly define when, where, and what work is to be performed; what restrictions exist; and how the contract work will be accepted and paid for.

Additionally, CRs look at:

- Coordination of contract documents
- Construction phasing and scheduling
- Traffic control
- Ease of construction
- Design consistent with field conditions
- Environmental Considerations
 - Erosion and sediment control
 - Timing restrictions
 - Permit conditions and stipulations

Comments from a CR review are handled in accordance with regional policy.

450.19. Plans Specifications and Estimate (PS&E) Review

Perform a PS&E review on all projects, unless waived by the preconstruction engineer. This is the final review of the PS&E, packaged in a format to include the Bid Schedule, Invitation for Bids, and other project-specific contract documents: a final contract mock-up.

Distribution of review assemblies is similar to the PIH Review with the addition of , adding the project control and regional planning. You may combine the PIH review with the PS&E review subject to regional policy.

Distribute PS&E assemblies externally (e.g. FHWA, local agencies, municipalities, etc.) in accordance with regional policy.

It is important that comments receive objective consideration. Regional policy will adjudicate outstanding issues.

Provide reviewers a response to their comments, and provide a copy of all comments and responses to the Construction Section.

450.20. Final PS&E

Upon completion of changes from the PS&E review, the original, reproducible plan sheets are sealed, signed, and dated in ink by the professional engineer(s) responsible for their preparation, in accordance with P&P 70-1003, AS 08.48.221 and 12 AAC 36.185, and the cover sheet is signed by the person(s) delegated by regional authority. Submit the original plans, a copy of the final specifications and engineer's estimate, and any other information necessary for advertising to the Contracts Section.

Electrical power distribution designs (electric utility service connections, step-up and step-down transformers, and electric load centers) for highway lighting systems (including parking, mooring and docking areas) and traffic signal and highway data systems must be sealed and signed by an Alaska licensed professional electrical engineer.

Designs for highway lighting systems and traffic signal and highway data systems “electrically downstream” of load centers may ~~must~~ be signed and sealed by an Alaska licensed professional civil engineer. “Electrically downstream” refers to components between the load side of a branch circuit breaker and utilization equipment.

Plans may include private contractor (company) or public agency names to identify and acknowledge their contribution to a project. No contractor or public agency logos apart from the DOT&PF logo are allowed anywhere in the plans. Other public agency logos are permitted when that agency provides a majority of funding for the project.

Identify contractors or other public agencies involved in the development of plans for the Department by including the company or agency name on the plan sheets in accordance with regional policy and 12 AAC 36.185. Use lettering that is 1/16” or less in height as printed on 11” x 17” plan sheets, and use the same font as other lettering of similar size on the plan sheet.

Production of the final PS&E completes the design stage. The project is ready for advertising once the

Project Certification and Authority to Advertise are obtained (see Section 470). Design changes after Project Certification are not permitted.

If tribal consultations were made during project scoping, notify these tribes that the project is ready for construction and provide an estimated construction start date.

Buy America Provisions

FHWA's Buy America policy (see 23 CFR 635.410) requires a domestic manufacturing process for all steel or iron products permanently incorporated in a federal-aid highway construction project. Federal regulations allow an exemption for minor quantities (0.1% of the total contract amount or \$2,500, whichever is greater) of non-domestic steel or iron products.

When a product manufactured predominantly of steel or iron material is identified in the contract by name and/or manufacturer, determine whether the product is, or is not, manufactured in the US.

Include Statewide Special Provision HSP18-1 to indicate whether a predominantly steel or iron product called for in the contract by name and/or manufacturer is manufactured in the United States. If unable to determine whether or not a product is manufactured in the US, list the product as not manufactured in the US.

A waiver to this policy may be requested from the Alaska Division of FHWA in accordance with 23 CFR 635.410(c). Further guidance on Buy America waivers is found here:

<https://www.fhwa.dot.gov/construction/contracts/buyamerica.cfm>

450.21. Retention of Project Development and Design Files

After contract award, consolidate records pertaining to project development as much as possible.

On federal aid highway construction projects, retain project records at least three years after FHWA pays the final voucher.

On state-funded projects, the three-year retention begins when the state issues the letter of acceptance to the contractor. The retention is automatically extended through resolution of any outstanding litigation, claims, or audits, and it may be extended by specific retention schedules or regional policy.

Make records available for public inspection at reasonable times and places in accordance with AS 40.25.110 and with prior coordination with the Department's attorney. This does not include records deemed confidential and exempt from disclosure under the Freedom of Information Act (see 49 CFR Part 7).

Examples of confidential records include attorney-client correspondence, records pertaining to pending claims or litigation, and personnel matters (AS 09.25.110 and AS 09.25.120).



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Transportation and
Public Facilities**

Section
DOT&PF Engineering Manager

Address 1
Address 2
Phone
Fax

|
Date

Re: *Project name, number, and location*

Certified Mail #: _____
Return Receipt Requested

Name and Mailing Address of Planning Commission

Dear *Planning Commission*,

The enclosed plans are submitted for your review and comment, and for determination of compliance with local planning and zoning ordinances. Under AS 35.30.020, the Department must comply with local planning and zoning ordinances and other regulations in the same manner and to the same extent as other landowners. If you believe the Department's construction of this project would result in a violation of planning, zoning, or other regulations generally applicable to landowners, please identify the portions of the project that would be in violation, and the specific planning, zoning, or other regulations that you believe would be violated.

Pursuant to AS 35.30.010, you have 90 days from delivery of the plans to provide comments on the project and to notify the Department whether the project violates any planning, zoning, or other regulations. If comments are not received within this time frame, the Department is authorized to proceed with the project.

Thank you for attention to this matter.

Respectfully,

DOT&PF Engineering Manager

Enclosure: Project Plans

"Keep Alaska Moving through service and infrastructure."

Figure 450-4
Example Letter to Planning Commission



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Transportation and
Public Facilities**

Section
DOT&PF Engineering Manager

Address 1
Address 2
Phone
Fax

Date

Re: *Project name, number, and location*

Certified Mail #: _____
Return Receipt Requested

Name and Mailing Address of Community Council

Dear *Community Council*,

The enclosed plans are submitted for your review and comment in accordance with AS 35.30.010.

You have 90 days from the delivery of the plans for your review and to offer any comments on the project and plans. Failure to provide comments within this time period will result in the Department moving forward with the project without taking your comments into consideration.

Thank you for your attention to this matter.

Respectfully,
|

DOT&PF Engineering Manager

Enclosure: Project Plans

"Keep Alaska Moving through service and infrastructure."

Figure 450-5
Example Letter to Community Council



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Transportation and
Public Facilities**

Section
DOT&PF Engineering Manager

Address 1
Address 2
Phone
Fax

Date

Re: *Project name, number, and location*

Certified Mail #: _____
Return Receipt Requested

Name and Mailing Address of Village Council

Dear *Village Council*,

The enclosed plans are submitted for your review and comment in accordance with AS 35.30.010.

You have 90 days from the delivery of the plans for your review and to offer any comments on the project and plans. Failure to provide comments within this time frame will result in the Department moving forward with the project without taking your comments into consideration.

Thank you for your attention to the matter.

|
Respectfully,

DOT&PF Engineering Manager

Enclosure: Project Plans

"Keep Alaska Moving through service and infrastructure."

Figure 450-6
Example Letter to Village Council

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