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SECTION 300 - PRELIMINARY DESIGN

310.00 – PROJECT DEVELOPMENT

The programming of highway projects is officially tracked through the Capital Investment Program. The development of these projects (funds, activities, etc.) is tracked through the Project Tracking System. The projects are broken into numerous categories that have varying design requirements. All projects will be designed to applicable standards.

The Project Activity Flow Chart (Figure 3-1) provides an overview of required project development activities and information, from the start of defining a purpose and need for a project through advertisement and award of the contract for construction. Figure 3-1 shows the various project activities and information for a "typical" complex project. Some activities and information are not necessary for some projects, while additional activities and information may be necessary for other projects.

The Project Development Checklist (Figure 3-2) can also be a useful tool to prevent overlooking a project activity and evaluating the current status of a project. Not all of the items are necessary for every project.

For all projects submitted to Roadway Design for review, three (3) weeks must be allowed from arrival date to the date of the review. Review dates shall be coordinated with the area engineers.

310.01 English Unit Conversion. English units of measurement shall be the preferred system of weights and measures in all Division of Highways activities. Conversion to English units shall be with a minimum of disruption of processes and limited impact on resources and is intended to be completed by January 01, 2007.

English units shall be used for news releases, public hearing displays, and information pamphlets. If metric units are shown, the metric unit will follow the English unit in parentheses.

Any projects being developed for bidding after January 01, 2007 using metric measurements must have an exception approved. The District shall submit a ***Request for Metric Measurement Exception*** to the Roadway Design Engineer for approval/disapproval. The request shall detail project history, progress on the project, cost of conversion, and the reason for the exception.

310.02 Constructability. Constructability reviews are required on all projects. A constructability review is a systematic process to ensure that a project possesses clear and feasible construction techniques. The Constructability Review Process starts at the inception of the project and continues throughout project development. Several constructability reviews are incorporated into the project planning and development. The combination of the reviews makes up the Constructability Review Process.

The purpose of constructability reviews during project development is to ensure that projects are biddable, buildable, cost-effective and maintainable. Constructability reviews involve the optimum use of construction knowledge and experience in the planning and development of a project.

Figure 3-1
Page 1 of 5

PROJECT ACTIVITY FLOWCHART

"TYPICAL" COMPLEX PROJECT
Time Line is for 5 mile reconst/realign
30 parcels R/W
EA/FONSI w/individual 404 permit
non-resource restricted
personnel estimated at 60% efficiency

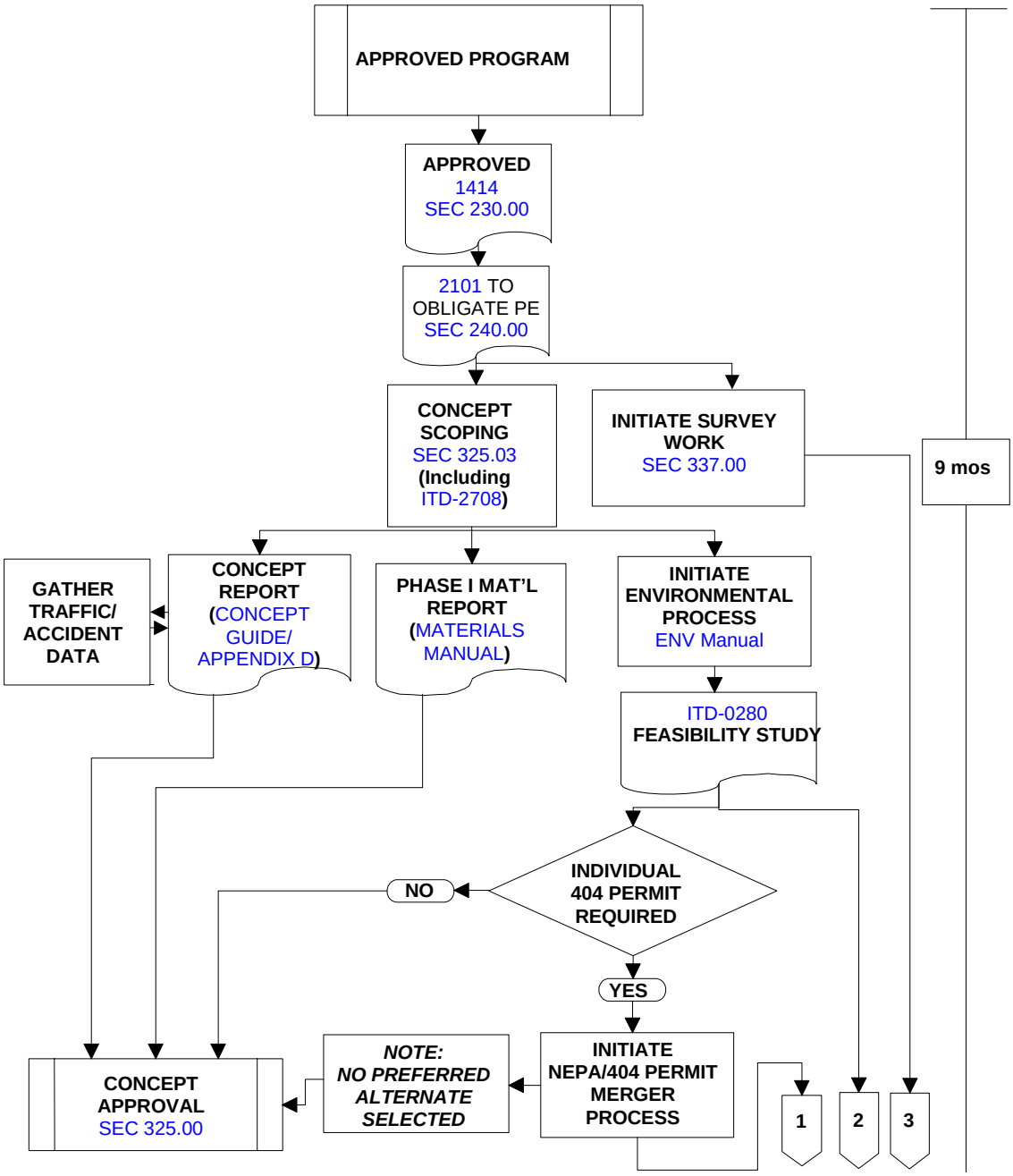

Figure 3-1
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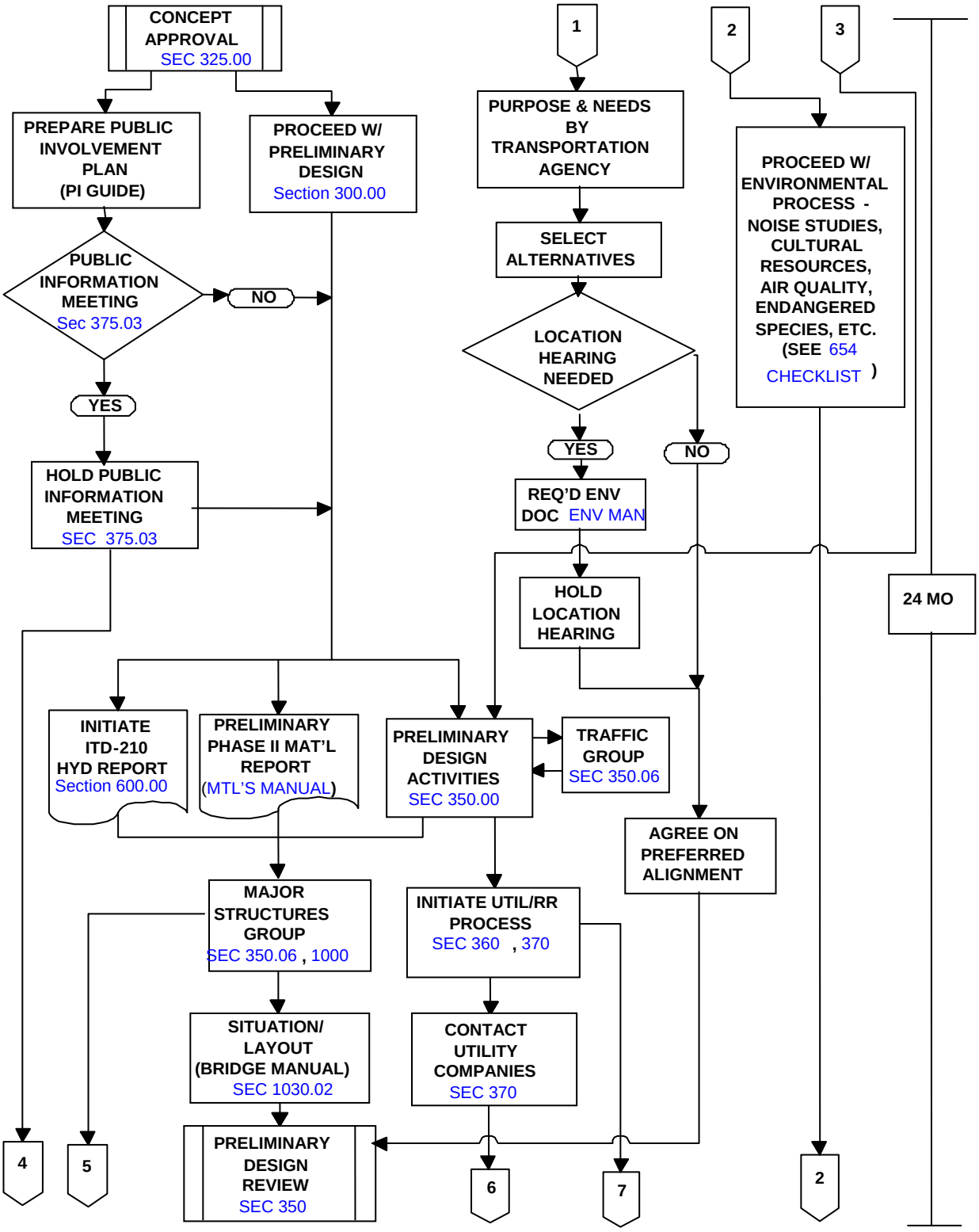

Figure 3-1
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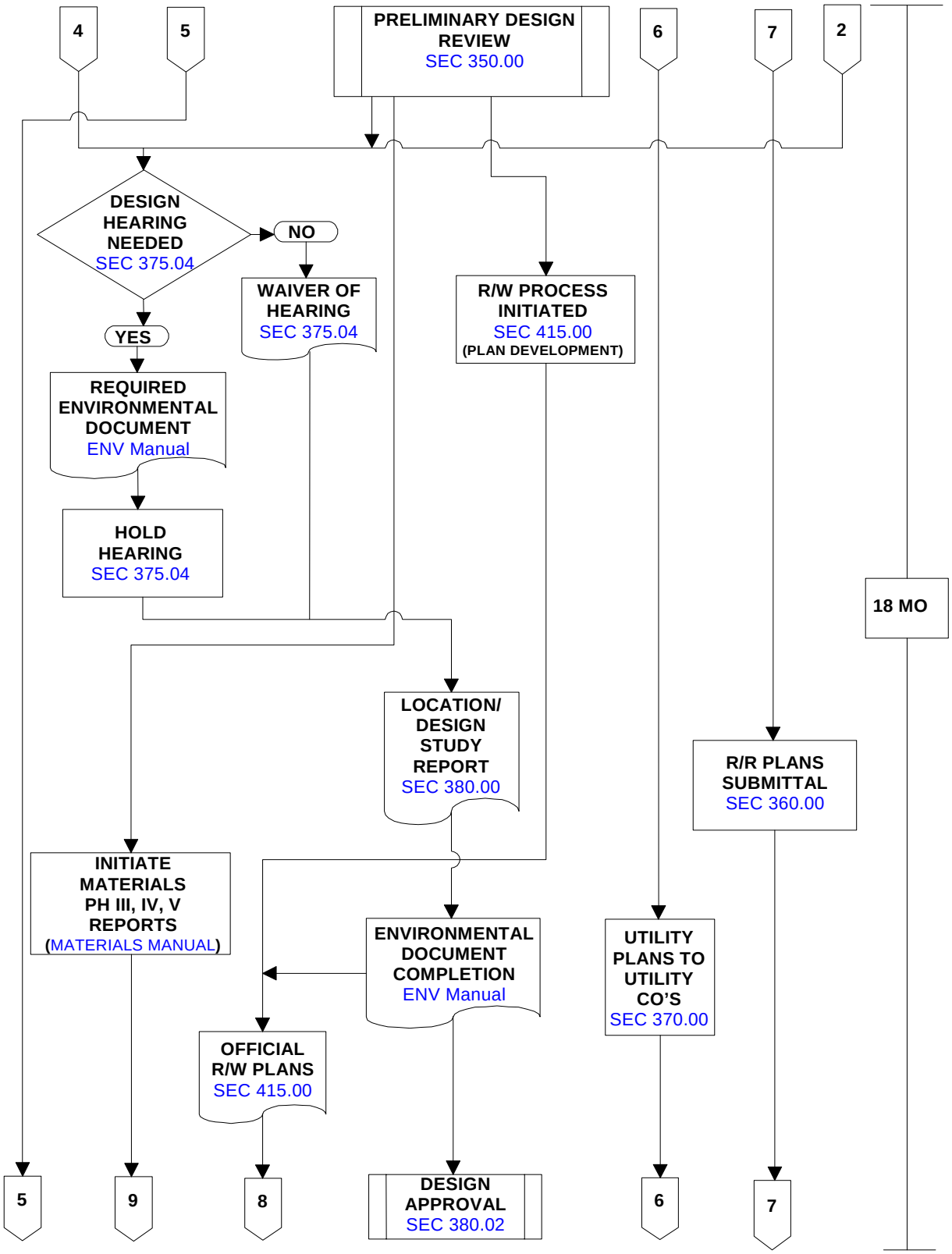

Figure 3-1
Page 4 of 5

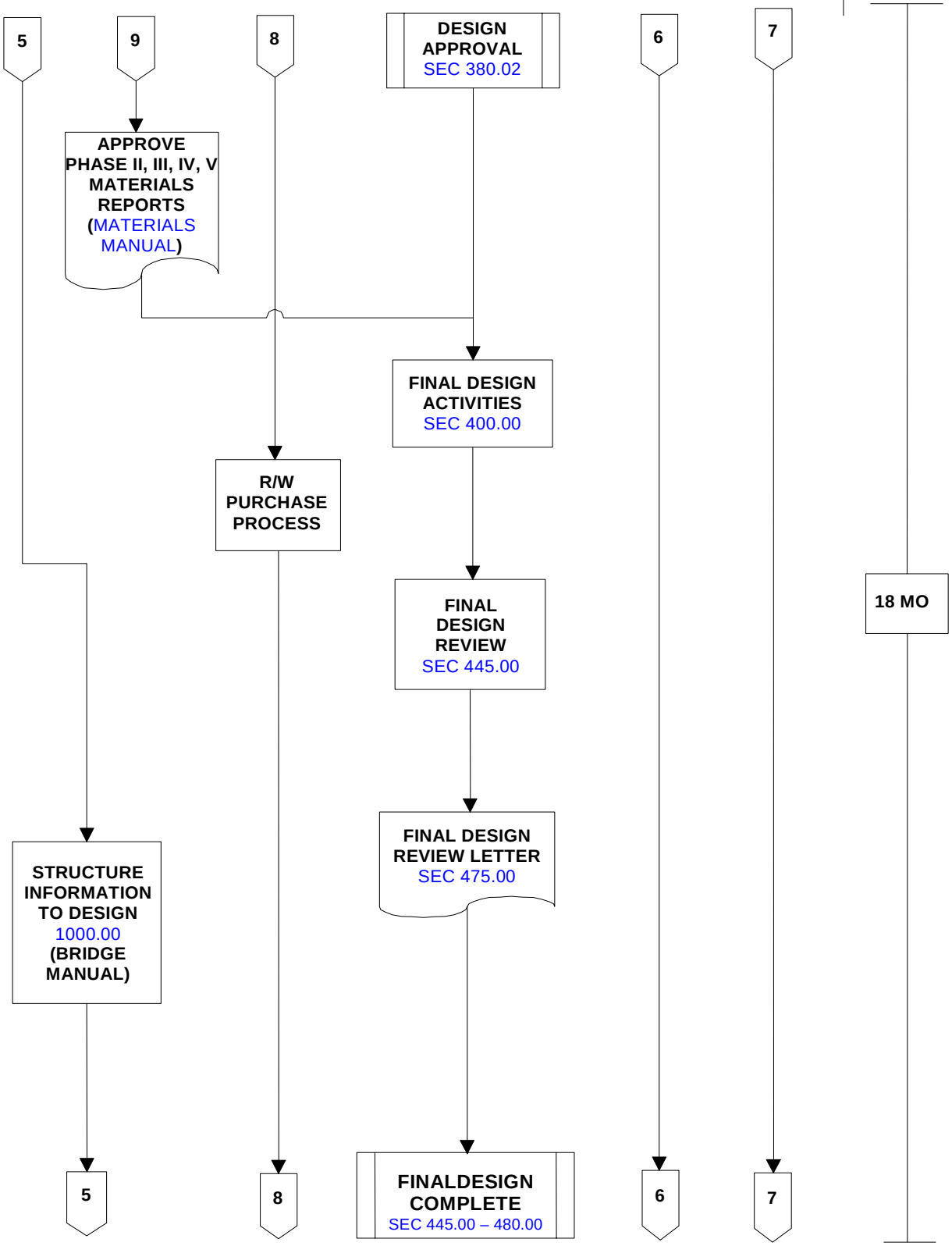

Figure 3-1
Page 4 of 5

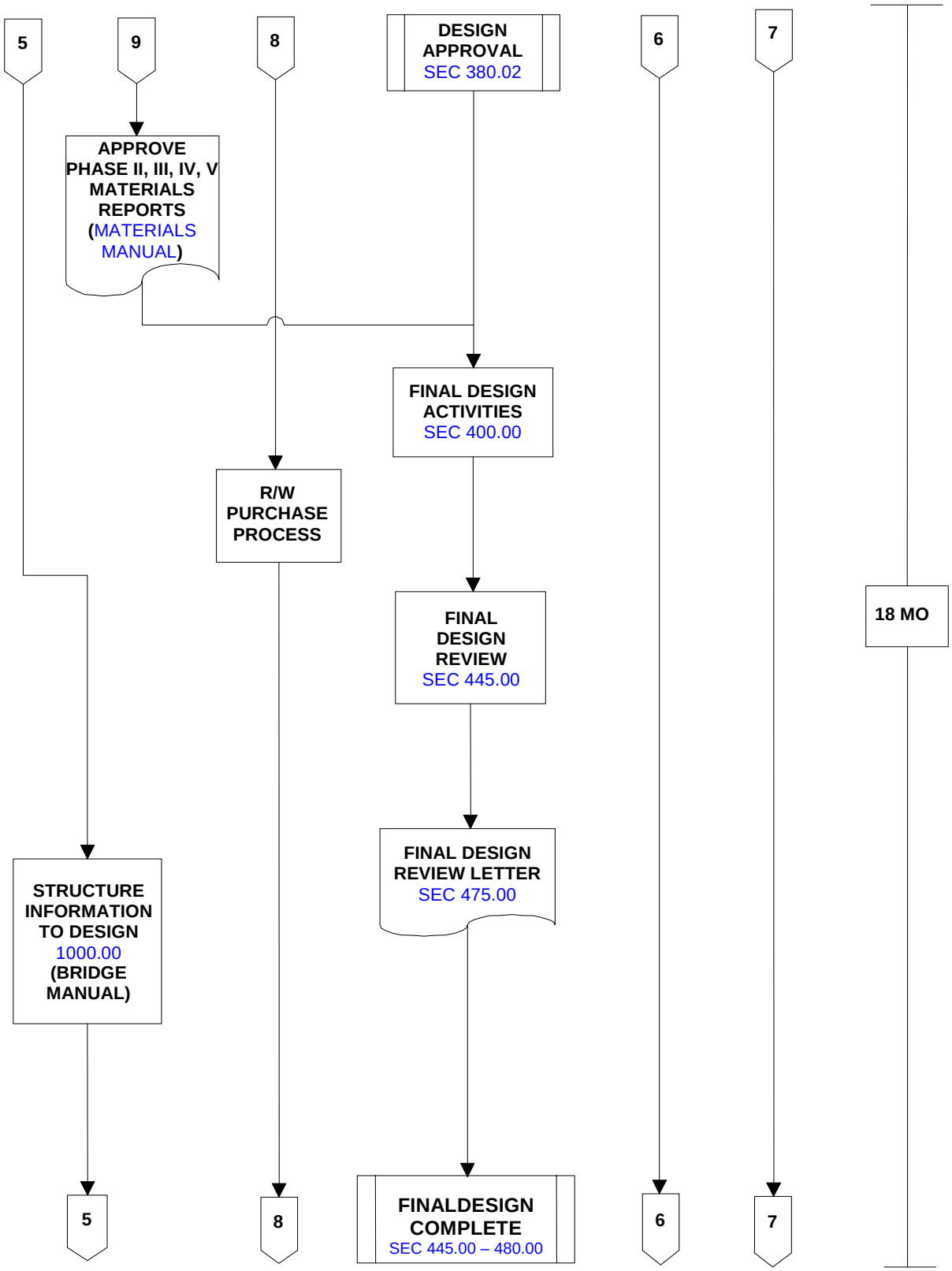

Figure 3-1
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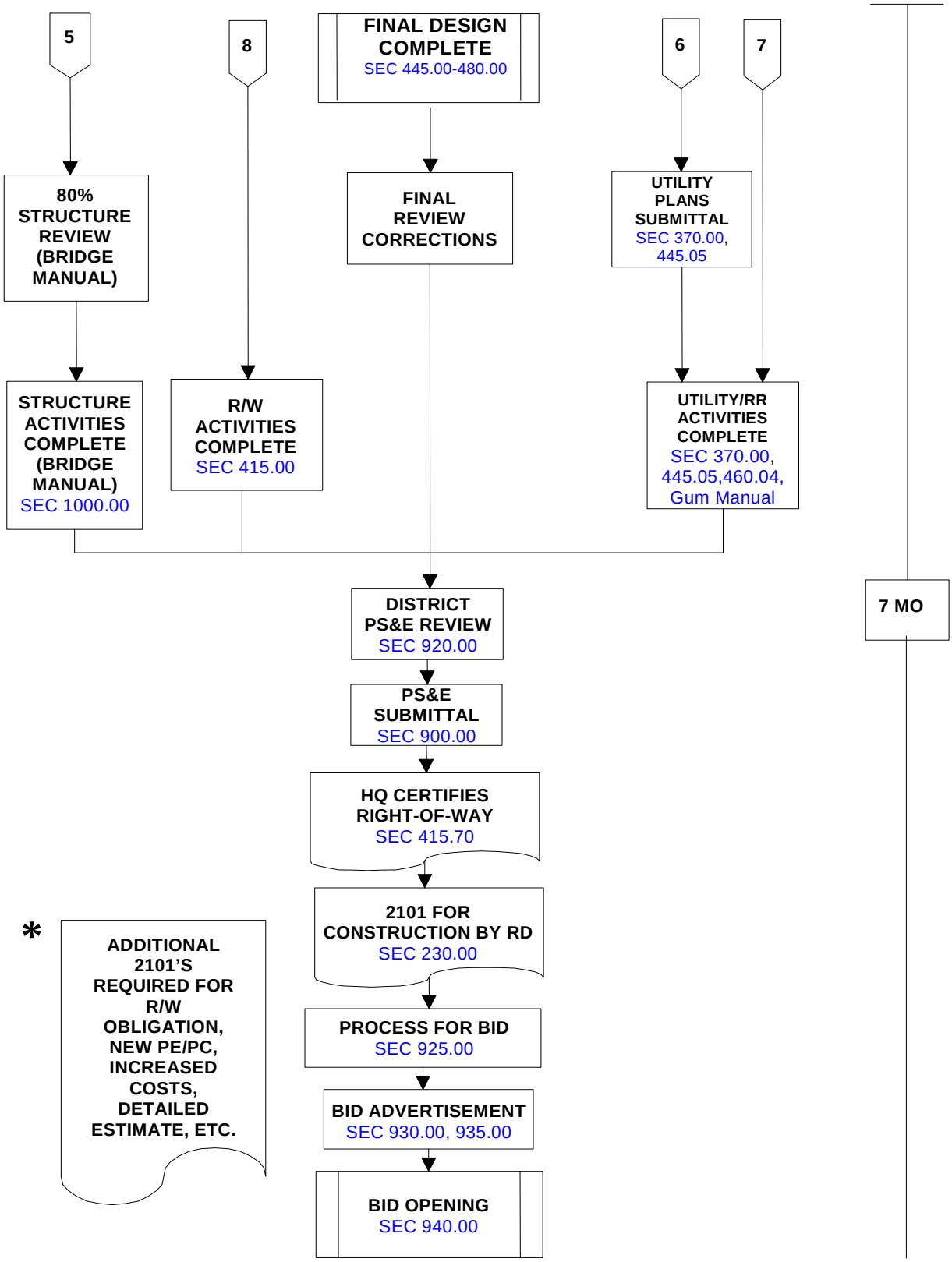


Figure 3-2
Sheet 1 of 3

PROJECT DEVELOPMENT CHECKLIST

PROJECT NAME:

PROJECT NUMBER: **KEY NUMBER:**

	Submittal Date	Approval Completion Date
Project Planning and Programming		
Project purpose and need established and documented. (A-11-02, Highway Development Program).		
Submit ITD 2435, Local Federal-Aid Project Request by Sponsor		
Complete ITD 1414, Project Program Entry or Revision, for program entry. Update if cost increases, see Administrative Policy, A-11-02.		
Initiate ITD 2101, Project Authorization and Agreement. (District requests funding for preliminary engineering).		
Preliminary Design		
Proceed with Concept Scoping Process (DE, ADE, MTCE, Environmental Planner, MTLS, RW, and Designer). Complete ITD 2708, Preliminary Project Concept.		
Request for Survey Work, ITD 2865. (Assure that all property monuments are located, marked, and referenced)		
Complete Concept Approval. ITD 783, Concept Approval; ITD 757, Design Standards; and ITD 758, Alternate Solutions and Costs and Proposed Design Exceptions. (Requires Material Phase I Report and Pavement Type Determination. Concept team assists in preparation.) ITD 0280, Feasibility Study		
Complete Materials Phase I Report, Geological Reconnaissance Report with Pavement Life Cycle and Cost Analysis, and Corridor Defined.		
Initiate ITD 1151, Traffic Data Request Capacity Analysis		
Complete ITD 654, Preliminary Environmental Evaluation; ITD 652, Hazardous Waste/Material Initial Site Assessment Checklist; and ITD 2784, NPDES Storm Water Permit Project Checklist for Construction, after receiving approval on ITD 1414.		
Initiate Nepa/404 Permit Merger Process, if 404 Permit Required		
Initiate ITD 1500, Archaeological Reconnaissance, by Environmental Planner (requires 2-3 months lead time). Bridge Inspection Reports and Deck Studies.		
Prepare Public Involvement Plan		

Figure 3-2
Sheet 2 of 3

PROJECT DEVELOPMENT CHECKLIST

PROJECT NAME:

	Submittal Date	Approval Completion Date
Preliminary Design		
Proceed with Preliminary Design Activities		
Complete ITD 210, Hydraulic Structure Study.		
Initiate Preliminary Materials Phase II Report		
Initiate Materials Phase IV Report — Foundation Investigation Report (requires situation layouts and hydraulics report).		
Initiate Traffic Design/Traffic Control Plan — signs, signals, illumination, and pavement markings.		
Prepare ITD 606, Access Control Determination.		
Complete Draft Environmental Report/Categorical Exclusion, Draft Environmental Impact Statement(EIS) or Environmental Assessment(EA)		
Initiate Utility Process		
Make Initial Owner contacts by Designer and Right-of-Way section (see R/W Procedures Manual)		
Complete ITD 759, Field Inventory.		
Complete ITD 602, Crossing Evaluation (railroad) and Airport Clearance		
Complete Preliminary Design Review and Submit Approval Letter		
Initiate R/W process (Plan Development)		
Initiate Materials Phase III and V Reports		
Complete Waivers of Public Hearing; **OR** prepare hearing plans and request a Public Hearing.		
Hold Location/Design Hearing.		
Complete Design Study Report, including ITD 1414 if costs increases		
Update ITD 1150, Cost Estimate Summary Sheet.		
Update ITD 2101, Project Authorization and Agreement.		
Complete Final Environmental Document — CE, EIS or FONSI		
Submit Utility Plans to Utility Companies		
Make Final Owner Contacts by Designer and Right of Way Agent		
Submit Official R/W Plans		
Obtain Design Approval		

Figure 3-2
Sheet 3 of 3

PROJECT DEVELOPMENT CHECKLIST

PROJECT NAME:

	Submittal Date	Approval Completion Date
Final Design		
Proceed with Final Design Activities		
Initiate Permits (Section 358)		
Obtain Approved Phase II, III, IV, V Materials Reports		
Proceed with Right of Way Purchase Process		
Receive Final Traffic Plans		
Initiate Agreements with LPA (Cooperative, Road Closure and Maintenance) Utilities, Railroads, Irrigation companies, etc.		
Obtain Material Source Plats		
Complete NPDES Storm Water Plan		
Complete Sediment and Erosion Control Plan		
Conduct Final Design Review and Plan in Hand Field Review		
Submit official Utility plans to Roadway Design — Utility agreements as needed will be obtained by the Utility Engineer.		
Compare right-of-way agreements with project plans for compliance		
Prepare Environmental Mitigation Plan Report		
Complete Final Design Letter and make plan corrections		
Complete District PS&E Review in District		
Finalize agreements with LPA, utilities, railroads, irrigation companies		
Obtain right-of-way Certificate		
Update ITD 1414, Program Entry or Revision if cost increases		
Update ITD 1150, Cost Estimate Summary Sheet		
Complete PS&E Package and send to Roadway Design		
Send Resident Files to Resident Engineer		
Prepare and Complete Bidding Process by Roadway Design		

315.00 – PROJECT DEFINITIONS

Project Definitions

Simple Projects are projects that meet all of the following criteria:

- NEPA Analysis is not expected to be with an EA or EIS
- The project does not have or expect to involve public controversy
- The project does not require a Public Hearing
- The project does not require a System Action

All other projects are Complex Projects.

Revisiting of the concept and any changes made to the concept could result in a change of "simple" to "complex", or vice versa.

315.01 Simple Projects.

Minor surfacing, enhancement projects, Safe Routes to Schools, intersection improvements, scenic byways, and CMAQ projects will be considered simple as long as the criteria listed under project definitions above applies.

District Engineers may approve concepts, preliminary designs, design approvals and final designs for Simple Projects. District Engineers will place their Professional Engineers Seal on the title sheet of the plans for Simple Projects.

Copies of all Approval Documents for all milestones shall be sent to Roadway Design with the PS&E Submittal. If copies have been sent as documents are approved then a list of approval dates shall be listed.

Materials Reports will require approval of Headquarters Materials Section.
Roadway Design will review district-approved PS&E packages for compliance with bidding requirements and program adherence only.

315.02 Complex Projects.

Requires approval of Headquarters and FHWA if applicable.

Once concepts are approved, a copy shall be distributed to the District Environmental Planner.

315.03 Short Projects. Short projects are projects that meet the simple project criteria described above under Project Definitions, are not on the interstate and do not require a preliminary design review. Therefore, intersection improvements, turn bays, bridge rehabilitation, etc. do not qualify. Short projects may follow the abbreviated procedures shown in Subsection 315.14 and Figure 3-4. The memo from the District to the Roadway Design Engineer granting design approval must include an explanation of why the project should be exempt from full design reviews.

315.04 Special Projects. Special projects as outlined in *23 CFR 771.117(c)* include landscaping, construction of bicycle and pedestrian facilities, fencing, signs, traffic signals, railroad warning devices, pavement markings, acquiring scenic easements, and improvements to existing rest areas and weigh stations. Many project procedures that are used for standard federal-aid projects are not applicable for special projects. Most Special Projects will use the abbreviated procedures shown in Subsection 315.14 and Figure 3-4.

For ITS Projects containing networking communications, Headquarters Information Services should be consulted.

315.05 New Construction. This action involves the construction of a new highway facility where nothing of its type currently exists.

315.06 Reconstruction. This typically involves a major change to an existing facility within the same general right of way corridor. Reconstruction may involve making substantial modifications to horizontal and vertical alignment in order to eliminate safety and accident problems.

315.07 Resurfacing, Restoration, Rehabilitation (3R). 3R projects focus primarily on the preservation and extension of the service life of existing facilities and on safety enhancements. The integrity of the existing ballast is maintained. The types of improvements to existing federal aid highways include: resurfacing, rotomill-inlay/overlay, overlay, bridge deck rehabilitation, modifying bridge rail, pavement structural and joint repair, minor lane and shoulder widening, minor alterations to vertical grades and horizontal curves, and removal or protection of roadside obstacles.

315.08 Pavement Rehabilitation (1R). Pavement rehabilitation projects are intended to restore the riding surface and preserve the integrity of the existing roadway while not doing other improvements associated with non-pavement related items. Design life of the pavement for Pavement Rehabilitation (1R) projects will be a minimum of 8 years. Overlays, inlays, combination inlay/overlays, type 1 CRABS (<9”, no milling, rural) and grinding with joint seal are approved minor resurfacing strategies. These projects do not decrease the existing geometrics conditions.

Note that hot-in-place recycling and cold in place recycling projects do not meet the minimum eight year life requirement for federal aid.

315.09 Pavement Maintenance (PM). Pavement preventative maintenance treatments preserve, rather than improve, the structural capacity of the pavement structure.

Activities most closely associated with traditional maintenance, including roadway activities such as seal coating, flexible pavement crack sealing, joint repair, grooving and grinding, pavement patching, shoulder repair and restoration of drainage systems.

315.09.01 Interstate Preventative Maintenance: Project development procedures on interstate preventative maintenance projects may follow the abbreviated procedures shown in Subsection 315.14 and Figure 3-4 (Project Development Flow Chart) and must include the following:

All work performed on interstate preventative maintenance projects must meet AASHTO standards, but other previously built areas of the roadway do not need to be brought to current standards.

An ITD 654, Preliminary Environmental Evaluation, and a map showing the construction limits is forwarded to FHWA for an environmental determination. Most of these projects will be classified as a categorical exclusion.

All interstate preventative maintenance projects are exempt from FHWA oversight on all design work per FHWA notification letter dated May 24, 1993.

315.09.02 Non-Interstate Preventative Maintenance.

If the District determines that a review of the design standards is necessary but design reviews are not going to be required, the project may follow these milestones:

- Concept approval
- PS&E submittal

It is recommended that a district review be completed on all projects prior to PS&E submittal. Districts are encouraged to submit maintenance projects to the Maintenance Engineer for review prior to PS&E submittal.

315.10 State Projects.

Small non-NHS 1-R type ST projects, as determined by the District Engineer, may follow these milestones:
• Concept approval
• PS&E submittal

Large, New/Reconstruction/3-R type, non-NHS ST projects should follow these milestones:
• Concept approval
• Preliminary Design Review
• Final Design Review
• PS&E submittal

For state contract maintenance (STM/STKP) projects, including those on the NHS, submittal for advertisement is required as shown below as long as there will be no reconfiguration of the lanes when striping is done.

Rest Area/Port of Entry Caretaker Services

Rest Area/Port of Entry Caretaker Services may be contracted through Business & Support Management like any other service contract. An ITD-2101, Project Authorization and Agreement, **IS NOT REQUIRED** because the contract is paid from District operating funds or Port of Entry operating funds, as appropriate. The District or Port of Entry will verify availability of funds and encumber funds with the ITD-2379, Supply Request. The Roadside Programs Manager in headquarters Maintenance section or the Port of Entry section, as appropriate, shall review and approve the contract package prior to advertisement.

NOTE: OTI, Roadway Design, and Construction have no involvement with these projects.

BLDG and YARD Projects

The Districts and Building Services shall submit an ITD-2101 to the Facilities Management section for review. The Facilities Manager (FM) shall review and approve the ITD-2101 and then forward the form to the Administrative Services Business Manager (ASBM) for review and approval. The ASBM forwards the approved ITD-2101 to Financial Services for assignment of a work authorization number. Plans are submitted to the FM for review and approval. The approved plans are submitted to Business & Support Management, and they will issue an ITD-2379, and prepare the bid package for advertisement. Business & Support Management will also notify the FM and the ASBM of the award. The purchase order is issued after the bid is awarded. The ASBM forwards the purchase order to Financial Services to encumber the funds. Business & Support Management prepares the vouchers to pay the vendor. The Facilities Management section tracks project development and progress, and the ASBM tracks project costs.

NOTE: OTI, Roadway Design, and Construction have no involvement with BLDG and YARD projects.

Minimal Contract Maintenance Projects (STM/STKP)

Contract maintenance projects (STM/STKP) shall be advertised through Business & Support Management when the service or supply projects are minimal in nature – have few bid items, simple special provisions, and require minimal inspection and/or quantity verification. Minimal contract maintenance projects include sweeping, mowing, herbicide application, ditch cleaning, litter pickup, and aggregate stockpiles where the material is purchased from existing commercial inventory. Minimal contract maintenance projects shall be developed according to the procedures outlined in the ITD Design Manual, except that an ITD-2101 is not required. The Highway Division Business Manager at the beginning of the fiscal year will assign district-wide work authorities for seven different project types. The District can then submit the complete PS&E package (see ITD Design Manual, Chapter 900) and an ITD 2379 to Business & Support Management for advertisement. The work authority number for the appropriate project type **must be listed** on the ITD-2379. A separate ITD-2379 should be used for each type of project, unless more than one type of project will be contracted by the same vendor. In that case, list each project type on separate lines of the ITD-2379. If a multi-year contract is requested, only the amount the District intends to purchase in the current contract maintenance program year should be put on the ITD-2379. To purchase from the same Business & Support Management contract the following year, a separate ITD-2379 will need to be completed for the future year purchase. Contract specifications shall require 100% payment and 100% performance bonds. The invitation for bid shall include a statement requiring construction payment and performance bonds. The contract specifications shall also require the Contractor to furnish a certificate of insurance for Comprehensive General Liability Insurance, Automobile Liability Insurance, and Worker Compensation Insurance in accordance with the current version of the Standard Specifications for Highway Construction 107.10.

Multifaceted Contract Maintenance Projects (STM/STKP)

Multifaceted contract maintenance projects (STM/STKP) and aggregate stockpile projects that require crushing and/or an advanced level of quality control shall be advertised through the Roadway Design section. These projects would not normally be obtained from an existing commercial inventory, would have multiple bid items, complex special provisions, require an advanced level of inspection and quality control, and in the case of aggregate stockpiles, require crushing. These multifaceted contract maintenance projects shall be developed according to the procedures outlined in the ITD Design Manual and follow the normal project development process, including submittal of an ITD-2101. Districts are encouraged to submit contract maintenance projects to the Maintenance Engineer for review prior to PS&E submittal.

315.11 Enhancement Projects. Enhancement projects are selected through a statewide competitive application process. Information on this process and a sample of the most recent application packet are available on the Department's Planning Website http://itd.idaho.gov/planning/ in the "What's New" section. Projects applications are submitted through each district and are reviewed by the district enhancement coordinator (generally the Senior Transportation Planner or Local Project Coordinator (LPC)) prior to being entered into ITIP and then sent on to Headquarters. All projects are then reviewed and scored by the Enhancement Advisory Committee established by the Board under B-11-03. The committee recommends a prioritized list of projects to the Board. These projects with any changes made by the Board are placed in the Highway Improvement Program. After the program is approved by the Idaho Transportation Board, the following procedures are used for Enhancement projects:

Step 1. On local projects, Districts prepare a state/local agreement that includes the amount to be deposited by the sponsor to cover ITD's review of the plans.

Step 2. The District prepares and submits an ITD 2101, Project Authorization and Agreement.

Step 3. The District Planner prepares and submits an ITD-0280, Feasibility Study, and ITD 652, Hazardous Wastes/Materials Preliminary Site Assessment Checklist, to the Environmental section for determination of the appropriate environmental clearance level. The Environmental section identifies any additional information that may be necessary and give directions to the designing agency.

Step 4. An ITD 783, Concept Approval, is submitted by the designing agency. Approval of the ITD 783 may be all inclusive and constitutes Concept Approval and Preliminary Design Review, except for projects that include Signals (see Step 4a) or Bridges (see Step 4b). Due to the sensitive nature and their unique variations from the routine project development procedures, all Enhancement Project concepts require ITD Headquarters approval and are considered complex projects. When concept approval and environmental clearance are complete, design approval shall be obtained in accordance with Administrative Policy A-13-02, Public

Involvement for Location and Design Determinations. The minimum submittal includes:

A signature sheet,
An ITD 757, Design Standards,
A project description,
vicinity sketch, and
estimate.

Step 4a. For signal projects, a set of plans must be prepared for Preliminary Design Review in accordance with Section 308.01 of the Traffic Manual. A Preliminary Design Review is required unless waived by the Traffic Engineer and should follow normal procedures.

Step 4b. For Bridge projects, a set of plans must be prepared for Preliminary Design Review in accordance with the Bridge manual. A Preliminary Design Review is required unless waived by the Bridge Engineer and should follow normal procedures.

Step 5. A complete set of plans will be prepared following the format for federal-aid plans outlined in Section 800.00 - Plans. Permit and environmental clearance requirements are the same as regular federal-aid projects.

Step 6. A formal Final Design Review is required and should follow normal procedures. Prior to final design, the project is reevaluated by the designing agency to ensure that the environmental clearance remains valid.

Step 7. PS&E submittal follows normal procedures.

315.12 Congestion Mitigation and Air Quality (CMAQ) Projects. The Idaho Transportation Department's Congestion Mitigation and Air Quality Improvement Program (CMAQ) is a statewide competitive program that provides federal transportation funds to implement cost-effective activities, plans, and projects that are mutually beneficial to transportation and air quality. CMAQ projects should demonstrate the highest potential for preventing or relieving a community's particular air quality problem. Planning activities can also be funded to develop a strategic plan which identifies additional projects and programs that will reduce a community's transportation-related air quality problems. For complete information on this program including application requirements go to:

http://itd.idaho.gov/planning/cmaq/

For basic project development activities see Section 310.00. For an in-depth project development activity flowchart contact the planning section contact shown in the above web site.

315.13 Non-Bid Projects. Non-Bid Project is a project that is not advertised for bids since all work will be done by entity(ies) like railroad, utility, local agency, etc., in accordance with agreement(s) executed with the Idaho Transportation Department. The funding may be federal (FHWA, HUD, etc.) and/or State (ITD, Parks & Recreation, grant, etc.). The following procedures apply to Non-Bid Projects:

Project programmed for a specific fiscal year with appropriate funding in accordance with the programming procedures.

- Agreement(s) executed with appropriate entity(ies). The agreement(s) will describe work to be done, who is to do work, cost of the work, and how payment is to be made. Plans and appropriate documents (estimate of cost from entity, insurances, special project requirements, etc.) will be included as attachments to the agreement(s).
- Funding obligated by ITD 2101 regardless of source of funding.
- Copies of executed agreement(s) and approved ITD 2101 are distributed by cover letter (see Figure 3-3).

TRANSPORTATION DEPARTMENT

Date
Name of Person
Title of Person
Name of Company
Mailing Address of Company
City, State Zip Code

Re: Project No. ----, **Highway**, **Project Name**, ---- County
Key No. ----

Dear (**Name of Person**):

This is a Non-Bid Project that was not advertised for bids since all work will be done by **(list name of railroad, utility, local agency, etc.)** in accordance with the attached three copies of the agreements/plans executed with the Idaho Transportation Department and approved funding by the attached approved ITD-2101.

The Resident Engineer will provide notification to proceed with the work. Please coordinate all work schedules and send billings to the Resident Engineer at:

Name, Resident Engineer
Idaho Transportation Department District **Number**
Address
City, ID zip code
Telephone number

Sincerely,

Damon L. Allen, P.E.
Roadway Design Engineer
DLA/
cc: **(list name of railroad, utility, local agency, etc.)** w/3 attach.

Attachments:3 agreements/plans, ITD 2101
bcc: District- w/4 attach.
RI- w/attach.
RE- (**Name of RE**) w/5 attach.
FS w/agreement without attachments
TRAF(Wilson) w/attach. **If railroad agreement**
Construction w/attach.
RD
RD (Mead) w/attach.
RD(Utility

315.14 Abbreviated Project Development Procedures. Abbreviated procedures have been approved for interstate preventative maintenance projects, short projects, and special projects (see Figure 3-4, Abbreviated Project Development Flow Chart). The following is a brief overview of these abbreviated procedures:

Step 1. The District submits an ITD 1414, Project Program Entry or Revision and a vicinity map to Highway Programming to add the project to the Highway Development Program.

Step 2. After the project is approved for the Highway Development Program and when the District is ready to begin development of the project, the District submits an ITD 2101, Project Authorization and Agreement. The request is then initialed and the work authorization number is assigned before beginning the preliminary engineering. All of the preliminary engineering money programmed in the current year can be requested, noting that the request is for "Preliminary Engineering for Design of the Project."

Step 3. The District submits an ITD 654, Preliminary Environmental Evaluation, and a map to the Environmental section for an environmental determination and clearance. Note in the transmittal that this project is a preventative maintenance, short, or special project.

Step 4. The District prepares an ITD 783, Concept Report, including the Phase I Materials Report and the life cycle cost analysis. Approval of this report constitutes Concept Approval and Preliminary Design Review.

Step 5. When the concept is approved and the environmental document is cleared and it is determined that no hearing is required, the District shall send a memo to the Roadway Design Engineer (Figure 3-5, Sample Waiver and Design Approval Memo) indicating that the environmental clearance is complete, hearing is waived, no preliminary design review will be held, and granting design approval.

Step 6. A formal Final Design Review will be required and should follow normal procedures. Prior to final design, the project will be reevaluated by the District to ensure that the environmental clearance remains valid.

Step 7. Submittal to Roadway Design will follow normal procedures.

Figure 3-4

ABBREVIATED PROJECT DEVELOPMENT PROCEDURE FLOW CHART

(Interstate Preventative Maintenance, Short, and Special Projects)

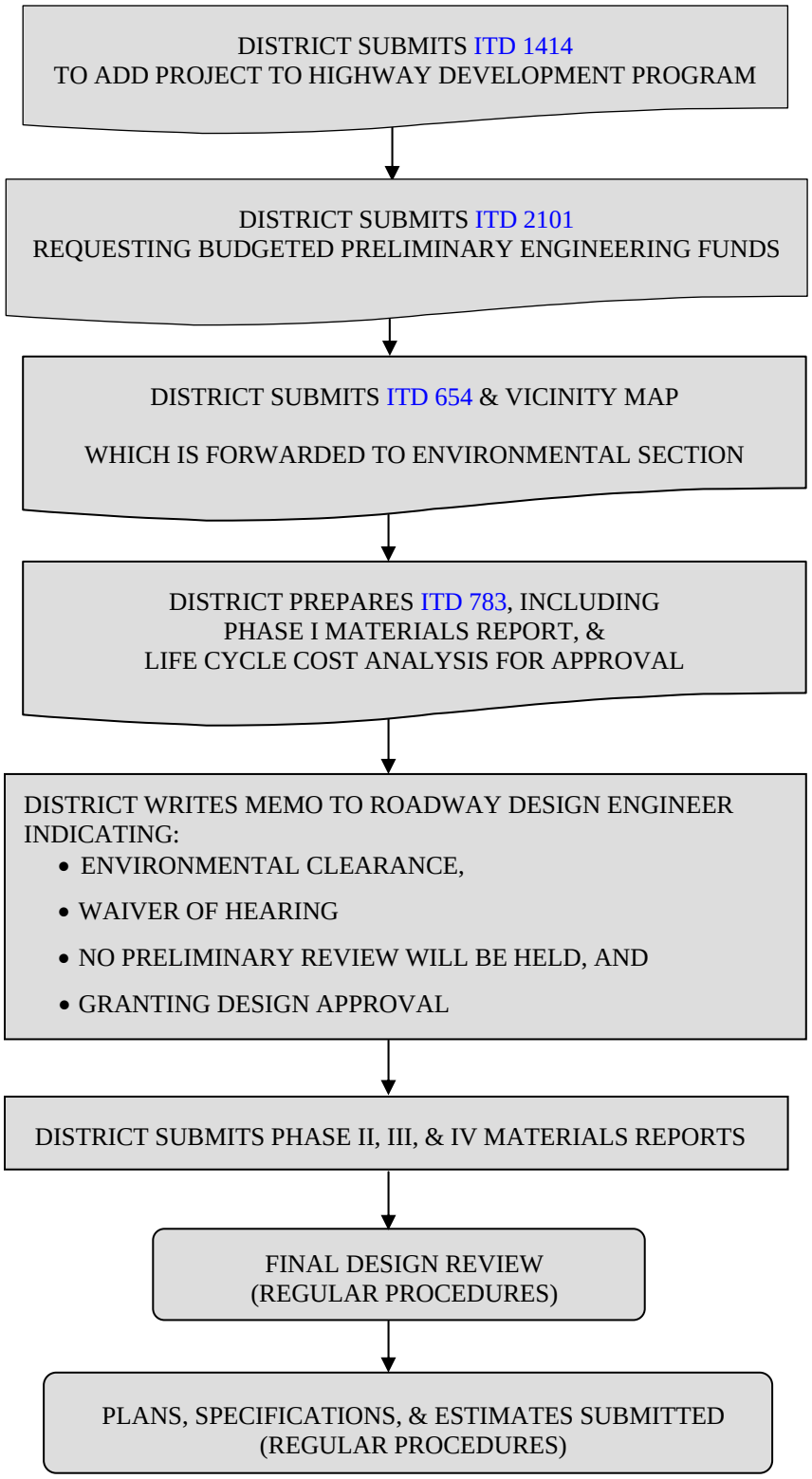


Figure 3-5

SAMPLE WAIVER AND DESIGN APPROVAL MEMO

ITD-500 9-94

IDAHO TRANSPORTATION DEPARTMENT

Department Memorandum

DATE: FEBRUARY 27, 2007 **Project No.(s):** IM-90-1(200)11

TO: DAMON L. ALLEN, PE
ROADWAY DESIGN ENGINEER **Key No.(s):** 8060

FROM: SCOTT STOKES, PE
DISTRICT 1 ENGINEER **Project Id, Cnty, Etc.:**
COEUR D'ALENE BELTWAY
KOOTENAI COUNTY, WA
#I031770

RE: DESIGN APPROVAL AND WAIVER OF PUBLIC HEARING

Design approval and a waiver of hearing is granted for this project.

The attached concept was approved May 6, 2006. The categorical exclusion was approved July 1, 2006.

The District will proceed with the project development.

If significant changes occur on this project, this waiver and design approval will be re-evaluated.

SS:jc:rr
Attachment
cc: CE
DE-1
ADE-1
PDE

320.00 – DESIGN STANDARDS

Design standards for a project dictate the requirements for both the horizontal and vertical alignments. Design standards include design speed, roadway width, horizontal and vertical curvature, grade, clear zone width, foreslope, super-elevation, design vehicle, minimum vertical clearance, level of service, etc. Selection of the appropriate design standards for a project is initially dependent upon knowledge of the functional classification, access control, terrain, traffic volumes, level of service, speed design, and super-elevation for the project route.

As early as possible, the designer needs to know what standards will apply to the project. The completion of an ITD 757, Design Standards, will aid the designer in determining the design standards.

The general policy of the department is that all design criteria will be met and where both minimum and desirable values are provided, every reasonable effort should be made to achieve the desirable standards. The policies and standards are to serve as a basic guide in design work, however, they are not to be considered as inflexible, and are not intended as a substitute for engineering knowledge, experience, or judgment.

FHWA has adopted the Green Book (*A Policy on Geometric Design of Highways and Streets*) for new/reconstruction projects on the National Highway System (NHS). For Interstate System highways, the current Interstate Policy (*A Policy on Design Standards - Interstate System*) also applies. In the absence of criteria in the Interstate Policy, the values in the Green Book should be used for design of Interstate System projects.

The specified standards related to design speed, lane and shoulder widths, bridge widths, structural capacity, horizontal and vertical alignments, grades, stopping sight distance, cross slopes, super-elevation, and horizontal (not clear zone) and vertical clearances as referenced in 23 CFR 625, are the **controlling criteria** and require formal design exceptions when not met. The roadway widths indicated in the corridor plans referenced in Administrative Policy A-14-02, shall be met unless an exception is approved by the Design Exception Committee.

320.01 Design Policies, Standards, Guides, and References. All of the following policies, standards, guides, and references are to be used in conjunction with this manual. In those instances where this manual reflects the policies of the Idaho Transportation Department and does not equal or exceed FHWA standards, documentation will be required.

320.01.01 Standards and Policies for the Design of Roadways and Appurtenances. Projects shall be designed and constructed according to the following standards:

Interstate

New/Reconstruction = AASHTO - Interstate Policy (*A Policy on Design Standards - Interstate System*) and The Green Book — *A Policy on Geometric Design of Highways and Streets*
3R Standards = Appendix A.05
1R Standards = Appendix A.20.01

NHS (Non-Interstate)

New/Reconstruction = AASHTO - The Green Book — *A Policy on Geometric Design of Highways and Streets*
3R Standards = Appendix A.10
1R Standards = Appendix A.20.02

Non-NHS (including LPA projects)

New/Reconstruction = State Standards - Appendix A.15
3R Standards = Appendix A.15
1R Standards = Appendix A.20.03

Deviations from these standards require submittal to the Design Exception Committee for approval. FHWA approval may also be required. (See Section 330.00 for further details.)

320.01.02 Guides and References. Deviations from these designated guides and references do not require approval of a design exception.

Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT < 400)

Erosion and Sediment Control on Highway Construction Projects (FHWA, 23 CFR 650, Subpart B)

Location and Hydraulic Design of Encroachments on Flood Plains (FHWA, 23 CFR 650, Subpart A)

Procedures for Abatement of Highway Traffic Noise and Construction Noise (FHWA, 23 CFR 772)

An Informational Guide for Roadway Lighting (AASHTO)

Highway Safety Design and Operational Guide (AASHTO)

Highway Capacity Manual (Transportation Research Board)

Roadside Design Guide (AASHTO)

Pavement Management Guide (AASHTO)

Standard Specifications for Transportation Materials and Methods of Sampling and Testing (AASHTO)

A Guide for Development of Rest Areas on Major Arterials & Freeways (AASHTO)

Guide for the Development of Bicycle Facilities (AASHTO)

Guide Specifications for Highway Construction (AASHTO)

Highway Drainage Guidelines, (AASHTO)

Erosion & Sediment Control Manual (ITD)

A Guide for Achieving Flexibility in Highway Design (AASHTO)

Guide for Utility Management (ITD)

Railroad Guide (ITD)

Context Sensitive Solutions Guide (ITD)

320.02 Interchange Requirements. Interstate access points should be closely coordinated with the environmental process. Interchange requirements include: Need of an Interchange, Background, Description, Analysis, Traffic Generators, Crossroads, Alternatives, Effects, Construction, Costs, Local Support, and Approval. Graphic illustration of any of these items should be prepared to facilitate explanation of the documentation. Each interchange requirement should include the following details:

Need of an Interchange. Describe the need for the interchange, including:

- The history of land use projections.
- An explanation of how the land has developed and if the development was according to the projections.
- A description of future land use projections and the effect for existing roadway facilities.
- A breakdown of other road improvements that are planned area and their effect on the existing and forecasted traffic growth.
- The proposal to construct the requested interchange and the effect on the existing and forecasted traffic growth.
- A statement of how this proposal conforms to the expected land use and if the proposal has the support of local government entities.

Background: Describe the original planning background of the area and include pertinent local and regional comprehensive planning, as well as transportation planning. Include the population and land use forecasts that were the basis for the original interstate planning.

A summary of all studies and the outcome of those studies should be listed. The record of FHWA's participation in the decision is important as part of this description.

Analysis: Analyze the effected highway systems, including:

- A description of the crossroad (arterial, collector, etc.) and the roads it intersects.
- The type of community or area being served by these facilities including size and/or population.
- A description of any problem the present roadway system and major arterials are experiencing in handling the area traffic (such as peak hour traffic volumes created by commuter traffic).
- An outline of any improvements being planned for the present roadway system and if these improvements will eliminate the existing problems.
- The improvements to the present roadway system that are required to handle the existing problem and if these improvements will be cost effective.
- The forecasted ADT for the design year based on the requested improvements and on the existing conditions without any future improvements.

- A discussion of any long-range transportation plans for upgrading other interstate facilities and the effect these improvements would have on the existing problems.
- An accident data analysis to assure safety enhancement and mitigation of any adverse impact.
- Description: Describe the proposed interchange, including:
- Type of interchange (full/partial diamond, with/without loop ramps, etc.).
- Location of the interchange in respect to the present crossover road or overpass.
- Basic characteristics of the interchange and the connecting road (i.e., basic right-of-way width, access control, design speed, roadway widths, and number and widths of lanes).
- Type of surface treatment used on the roadways as well as the shoulder, curb, and gutter treatment; sidewalks; bike lanes; etc.

Traffic Generators: Discuss the present traffic generators and the quantity of vehicles being produced by these generators, and any needed service to public-use facilities should be described in detail.

Crossroads. Include an in-depth description of the type and condition of the crossroad:

- System or regional plan of which the crossover is a part.
- ADT for the current and design year – through and turning.
- Number of existing traffic lanes and the type of highway.
- Probable number of traffic lanes for the design year.
- Distance to and the size of the communities directly served.
- Distances to the next interchange in each direction.

Alternatives: Cover the existence of the arterials parallel to the interstate that could be used by commuter traffic to interchanges other than the one under consideration. To what extent are these arterials being used now? Is it possible to develop new streets or arterials, generally parallel to the Interstate System, that could be used by interstate-bound traffic by way of interchanges other than the one being proposed?

Effects. Outline the effects this proposed interchange would have:

- On the interstate (sufficient distance to adequately handle merging traffic, diverge and weaving maneuvers, the ability to sign adequately, etc.).
- On major arterials that parallel the interstate (decrease in the ADT on arterials in the design year).
- On other interstates or business loops into adjoining cities.
- On lane requirements on the interstate and other interstates or business loops.
- On adjacent interchanges.
- On the safety of the interstate and adjacent local street network.

Construction. Describe what effects the construction sequence would have on the schedule of:

- Adjacent interchange improvements.
- Other interstate or connector improvements.
- Additional lanes on the interstate and other interstates or business loops.

Costs: As part of cost-effectiveness analysis, describe the cost resulting from construction of the interchange, together with the estimated benefit/cost ratio. The benefit/cost ratio should include such items as benefit/cost ratio number, present worth value, number of vehicle miles of travel saved, and number of vehicle hours of travel saved.

Local Support: Include a statement covering local support (or the lack of it) during location hearings and other times of public input. Also include a statement of local government opinion regarding the proposal. When a sizable city is to be effected, support should include a letter from the head of city government outlining the expected core area impact due to possible increased suburban development. Support should not be limited to local support, but should include any other information that is appropriate.

Approval: The request for approval is submitted to the Roadway Design section for review and then to FHWA for final approval. See FHWA Access Policy at http://www.fhwa.dot.gov/programadmin/fraccess.html.

Final approval of the access point will not be given prior to the environmental document. A graphic illustration of the above items should be prepared to facilitate explanation of the documentation.

For additional information on Interchanges, Interstate/Expressways, see Appendix A.50.

320.03 Application of Design Standards. The design standards contained herein generally represent minimum values and should be considered the lowest acceptable limits in design. The policies and standards are to serve as a basic guide in design work, however, they are not to be considered as inflexible and are not intended as a substitute for engineering knowledge, experience, or judgment. Designs will embody the highest values possible, commensurate with conditions and that minimum values should be utilized only in those cases where inordinately high costs would result or where other factors must be considered.

While maintaining sound safety and geometric design standards, project designers shall, to the extent practicable, locate alignments and facilities to avoid the following considerations:

- Hazardous wastes
- Wetlands
- Floodways
- Public parks/recreation areas
- Wildlife/waterfowl refuges

- Historic/archeological sites
- Displacements

Designers shall consult with environmental staff and district environmental planners regarding the location of areas of concern. Any unavoidable encounters involving the areas listed above require consideration of all practicable design measures to minimize harm (e.g., spanning a floodway). In addition, designers shall coordinate with environmental staff regarding other environmental issues that may arise and affect project design or location (e.g., noise abatement walls, bald eagle nesting sites, etc.).

320.04 Guidelines for Considering Alternate Routes. Alternate routes must be considered in the following corridors during development of plans or projects:

- On a Board-approved “Intrastate Priority Corridor” or
- A highway classified as “rural principal arterial” to support and enhance the Board-approved
- Access Control Policy B-12-01
- When evaluating alternative routes consideration should be given to the following factors:
- Environmentally feasible – The project must be supportable through the NEPA process.
- Cost-effectiveness – This item may include rebuilding “Main Street” whether the local jurisdiction assumes responsibility of the rebuilt road or not.
- Existing access control – Access control on the State Highway System is based on the type of facility, functional classification, highway safety, vehicle operations, preservation of highway utilities, zoning, and route consistency.
- Traffic volume and destination – The benefits to be derived from bypassing a city is directly related to the volume of traffic that is being delayed by operational constraints within the city.
- Population of the community – The community’s ability to adjust to economic change is a factor in any consideration to build an alternate route. The number of through trips is a function of the city population.
- The percentage of through traffic approaching a city decreases as the city size increases. Economic benefits realized from bypass construction are reflected in improved accessibility and decreased vehicle-operating costs.
- Local community desire for the alternate route – This issue should be discussed thoroughly in the Public Involvement Process.
- Existing facility capacity – The level of service issue for arterials entering a community is an important factor for efficient and safe travel.
- Distance from town of the proposed alternate route – Access to traveler services is a factor for the traveling public.

- Safety/accident rates – Will the alternate route significantly increase safety or reduce accident rates?
- Signing of new route – Local communities should be assured that adequate and proper signing will be provided on the alternate route to encourage the traveler to use local businesses and services.

320.05 Context Sensitive Solutions. To "protect and enhance the natural environment and communities affected by highway transportation", ITD will seek opportunities to implement innovative measures that will help our projects fit within the community and natural environment in which they are located. An example of such an opportunity is the integration of context sensitive solutions and design (CSS/CSD) within the NEPA and project development process. The context sensitive solutions approach is a collaborative, interdisciplinary approach that involves all stakeholders in the development of a transportation proposal so the project will fit in with the physical setting and preserve scenic, aesthetic, historic, and natural environmental resources, while maintaining safety and mobility.

325.00 – CONCEPT REPORT REQUIREMENTS

The concept report consists of concept approval, design standards, alternate solutions and costs, and a Phase I Materials Report if appropriate. For concept report requirements, see the most recently published Guide to Completing the Concept Report.

325.01 Pedestrian and Bicycle Facilities. Vehicle, bicycle and pedestrian requirements shall be individually discussed and documented during the concept stage of the project. In accordance with Administrative Policy A-09-08, all projects need to be analyzed to see if a need for bicycle and pedestrian facilities exist and added to the ITD 758, under the alternatives. Areas to be covered include potential usage of the corridor by bicyclists (adjacent or within populated areas), ability of highway to accommodate bicyclists (wide shoulders), coordination with local communities and plans, etc. Either a plan to include bicycle facilities or justification as to why not must be included. The concepts that are submitted to Roadway Design for review will be routed to the Planning Division for Bike/Pedestrian facilities. Any issues concerning bike path standards will be addressed to the Geometrics Engineer in Roadway Design.

See Appendix A.40 for the design criteria for bicycle facilities.

325.01.01 Americans with Disabilities Act. Americans with Disabilities Act requirements are to be met on all reconstruction and 3-R type projects, regardless of funding source and will be addressed in the concept.

325.02 Intelligent Transportation Systems (ITS). Deployment of ITS technologies shall be considered on all projects as a method of addressing project goals, motorist needs, and the goals of Idaho's ITS program. For more information see Appendix A.45.

325.03 Concept Scoping Procedure. When a clear and concise concept, involving all appropriate stakeholders, can be laid out, approved, adhered to, and revisited when necessary, the ability to develop projects within budget and on time is greatly enhanced.

The Concept Scoping Procedure is the process used to determine the complexity level of a specific project and ultimately the approval level required before proceeding with design. The scoping procedure should be the ultimate goal and should achieve the following list of objectives:

- Promotes universal support within ITD.
- Has all project stakeholders accurately defined and they have the opportunity for input, and have confidence that the project will be feasible and successful.
- Uses the Guide to Completing the Concept Report to provide for consistent project concepts.
- Enables and encourages people to track and follow-up appropriately, and to revisit the concept as necessary.
- Assures approvals are completed as scheduled and does not delay the project design completion.
- Assures ROW and Environmental aspects are covered in sufficient detail to enhance future document approvals.
- Promotes regularly scheduled Concept tours and includes appropriate stakeholders. All background information is available and all issues and impacts have been identified.
- Provides for Projects to be identified as simple or complex with appropriate approvals.
- Assures project concepts have a reduced likelihood of changes and sufficient evidence of benefits is provided for any proposed changes.
- Provides for consistent scheduled completions and accurate budgeting, therefore promoting an overall stabilized program.

The key elements of the Concept Scoping Procedure are:

IDENTIFY AND INCLUDE ALL STAKEHOLDERS i.e.: District – Project Manager, Sponsor, Asst. District Engineer, PDE, Designer, Senior Planner, Environmental Manager, ROW Supervisor, Materials Engineer, Traffic Engineer, Maintenance Foreman, HQ – Area Engineer, Bridge, Traffic, Materials, Environmental, Other – FHWA, Local Sponsor, Consultants, and Resource Agencies, plus any other applicable parties.

Roadway Design and FHWA Operations Engineers assigned to each District are members of the Concept Review Teams and are invited to attend concept reviews. The District Environmental planner shall be included in the review of all concepts. The Project Development Engineer should contact the Area Engineers as soon as the Highway Development program is approved to determine the level of involvement and to make travel arrangements, if necessary.

When the Area Engineer is a member of the Concept Review Team, the Area Engineer has the authority to approve the concepts at the time of the review, therefore speeding up the concept approval process.

GATHER ADEQUATE BACKGROUND INFORMATION and SET PROPER GROUNDWORK INCLUDING: Project area history, old plans, aerial photographs, public input, Right-of-way information, ownership information, political pressures, highway needs report data, programming history, utility locations, Planning Section contacts, where necessary.

Steps “one” and “two” are cyclical by nature. It is probable that stakeholders would be identified, then background information gathered and as a result, the stakeholders’ list modified.

2a. Conduct Concept Scoping Tour involving stakeholders

2b. Ground Reconnaissance

The District Surveyor, Design Engineer, Materials Engineer, Geologist, Environmental Manager, and Right-of-Way Agent will go over the proposed route to examine special topographic land use or geological problems that may affect the final location.

Rock slope treatment shall also be considered for each rock cut at this stage. A serrated slope should be recommended for slopes that are rippable. Should the rock be hard and tight and/or the design slopes steeper than ¾:1 presplitting is recommended. Where rock cuts are shallow, consideration should be given to laying the slope back on a slope flat enough to blanket with soil.

Preliminary results and recommendations should be presented in the Phase I Materials Report or the Summary of Geotechnical Findings Report. Final design recommendations should be presented in the Phase II Materials Report or the Special Geotechnical Report. If the recommended method of handling rock cut slopes is accepted at an early review stage, the decision can aid the landscape architects in planning for special planting of the minibenches or seeding of soil covered rock cuts and can minimize changes during construction where rock characteristics are found to be different than those anticipated.

DETERMINE PURPOSE AND NEED FOR PROJECT: Revisit the programming purpose and needs. Add to or modify based on new or additional information.

EVALUATE RISK ASSESSMENT AS TO LEVEL OF EFFORT NEEDED: Determine risks involved in alternate levels of design and analyze risks to assist in determining level of design. Use this information in establishing alternates and selecting design.

4a. DETERMINE POSSIBLE RIGHT-OF-WAY IMPACTS: Address possible ROW impacts, including number of owners, types of property, impacts to properties, amount of takes for each alternate, establish costs estimates.

4b. DETERMINE POSSIBLE ENVIRONMENTAL IMPACTS: Identify possible environmental issues and determine what can be avoided and what needs to be dealt with and determine schedule so the environmental clearances are not keeping the project from progressing. Include level of clearance needed, wetlands, mitigation measures, hazardous materials, archeological

considerations, historical sites, needed permits, clearances, costs and threatened and endangered species.

4c. DEFINE PROJECT STANDARDS: Determine required standards for the project location, type of project, and determine which standards the project will be designed to. Evaluate need for exceptions. Determine, up-front, if exceptions can be avoided.

ESTABLISH ALTERNATE SOLUTIONS AND COSTS: Analyze options and determine possible solutions. Go into enough detail that the best alternative can be selected and costs can be used for comparisons. Develop a range of options and solutions and use innovation, context sensitive solutions and value engineering where applicable. This may be an area that a consultant can be used to include alternates that ITD has no experience with.

5a. DETERMINE BEST POSSIBLE OPTION - (DO IT RIGHT): After analyzing all the issues, select the best option.

DETERMINE COMPLEXITY OF PROJECT: Review the information available and determine complexity of the project. This will determine how in depth the concept and the approval process will need to be.

PUT TOGETHER THE DESIGN TEAM: Define the responsibility of the team.

SET REALISTIC SCHEDULE BY PROJECT MANAGER AND GET BUY-IN FROM STAKEHOLDERS: Set schedule based on type and size of project, involvement of different sections (bridge, traffic, utilities, design, materials, R/W, etc.), different agencies, consultants, number of property owners, known environmental issues and district and designer workload. Review proposed schedule with stakeholders and get agreement/buy-in that this schedule will be meant.

8a. EVALUATE AND ACCOUNT FOR AREAS THAT MAY CAUSE DELAYS IN DESIGN: Identify potential bottlenecks and decide how they will be dealt with up front. Tough environmental issues, high profile public involvement, railroad involvement, permits required that historically take long periods of time to secure, several R/W parcels or known problems in R/W to work with.

DETERMINE IF CONSULTANTS ARE NEEDED AND AT WHAT STAGE OR PHASE: As schedule is set, determine if consultants are needed and what work they will need to do. Make sure PE is scheduled for consultant services.

SET REALISTIC BUDGET: Use the updated information including: stakeholder input, known standards, set schedule, environmental concerns, R/W impacts, materials data and selected option to set budget.

LOOK BEYOND 20 YEAR DESIGN: Although our design year for most Federal-aid projects is 20 years beyond the construction year, try to look beyond that time and evaluate how the selected design will affect future projects.

An important element is the emphasis on minimizing change and re-work. The goal is to develop a procedure that emphasized prior planning and awareness of the impact that changes have, thereby making alteration less likely.

The decision-making process needs to be documented. Rejected ideas often resurface because decisions have not been documented, thereby wasting time and effort. Putting together a tighter concept initially should control this issue better.

All projects should not be treated the same, regarding approvals, when in fact there is a larger volume of projects that do not and should not require as much scrutiny as the others. The distinction of "simple" versus "complex" and the approval process associated with each (see item #6 above) is an effort to help speed the project development process along. Refer to Subsections 315.01 and 315.02 for guidelines to categorize these projects.

325.04 Concept Report. A concept report will be approved prior to the Preliminary Design Review. Full oversight project concept reports will also be submitted to FHWA for review.

The project concept report shall consist of:

- ITD 783, Concept Approval,
- Draft Location and/or Design Study Report narrative (Figures 3-15 to 3-18 for examples), including a statement by the District Environmental planner about federal permits or other environmental requirements, constraints, issues, etc. (if none, so state),
- Vicinity Sketch,
- ITD 757, Design Standards, and supporting data,
- ITD 758, Alternate Solutions and Costs (proposed design exceptions),
- An approved Phase I Materials Report and Life Cycle Cost Analysis including Typical Section Drawings, and
- Detailed cost estimate for preferred alternative.

The ITD 759, Roadway Inventory, should be completed in the field to itemize existing conditions and submitted with plans for Preliminary Review.

325.05 Concept Report for Preventative Maintenance Projects

Normally, P.M. projects do not require as much detail in the concept report as other projects. Rules of responsibility to the public for professional engineering always apply.

The following minimum items are required when a concept report is completed for P.M. projects:

- Narrative description of the project and work to be done,
- ITD 783, Concept Approval,
- ITD 757, Design Standards, (On most projects, only the heading, section A, and character of work need to be completed.)
- Vicinity sketch
- Cost estimate

If required, the concept report must be completed and signed before the contract documents are forwarded to Roadway Design for PS&E submittal.

330.00 – DESIGN EXCEPTIONS

The general policy of the department is that all design criteria will be met. Where both minimum and desirable values are provided, every reasonable effort should be made to achieve the desirable standards.

Whenever necessary or desirable to deviate from the design policies and standards, a design exception shall be required. When exceptions to standards are required during the course of project development, the District shall document the design exception using form ITD 758, ITD 759. Non-NHS design exceptions can be approved by the District Engineer. NHS Design Exceptions may be recommended for the State by the District Engineer. DE recommended design exceptions on the NHS shall be forwarded to the RDE for coordination with FHWA for approval.

The Districts may request approval through the Design Exception Committee review. The committee includes the Roadway Design Engineer, the Highway Operations/Safety Engineer (HOSE), the Bridge Engineer, and the FHWA Field Operations Engineer.

Copies of all Design Exception documentation will be sent to RD for record keeping purposes.

The two most common design exceptions requested are for width and roadside obstacles. When the approved standard is met, but a corridor plan referenced in Administrative Policy, A-14-02, is not met, an exception shall be requested and shall be approved by the Design Exception Committee.

All design exceptions must be documented and justified. A design exception request should include a description of what standard is being reduced, to what extent the reduction will be, where the reduced standard will be applied, two or more justifications for reducing the standard, and the full cost to obtain the standard. Whenever possible, the deviation from the standards should be as little as possible. (Requests for exception should be justified in engineering terms rather than economic terms, since the argument that the state needed to save tax dollars is not usually a persuasive justification.)

The justification should completely describe the physical and environmental factors that make the exception necessary. Justifications should follow along those reasons that would be considered good engineering judgment such as effect of the variance on the safety and operation of the facility, compatibility with adjacent sections of the roadway, functional classification, amount and character of traffic, type of project (new construction, reconstruction, or 3R), accident history, resultant environmental impacts, and future improvements programmed. Cost-effective justifications should be used whenever applicable and should always be used whenever standards are reduced significantly or large costs are involved. (See the following, Guidelines for Preparing a Request for Design Exception.)

330.01 Guidelines for Preparing a Request for Design Exceptions. The appropriate justification and documentation must accompany every request for a design exception.

Each design exception request must be based upon a comparison of what is proposed versus the appropriate standard. Generally, the following three items should be considered in any analysis:

a. What is the degree to which the standard is being reduced?

b. Will the exception affect other standards?

c. Are there additional features being introduced, such as signing or delineation, which would mitigate the exception?

At least two justifiable reasons must be presented for each exception.

Most requests for roadway width exception are actually for a shoulder width exception. An example of this is a request to construct a 28 feet wide roadway in lieu of the 36 feet wide AASHTO standard. Since the 28 feet roadway typically has two 12 feet lanes and two 2 feet shoulders, and a 36 feet roadway typically has two 12 feet lanes and two 6 feet shoulders, the exception is really to construct the roadway with 2 feet instead of 6 feet shoulders. At least six arguments can support this width exception.

a. Administrative Policy A-14-02 — Establishes recommended roadway widths based on completed corridor plans or by applicable standards. The Design Exception Committee must approve requests for exceptions to recommended widths established in a corridor plan. Although reference to a corridor plan should be noted for any applicable projects, the request for a width design exception to AASHTO standards cannot be based solely on this justification.

b. Capacity — a roadway width exception should not be requested unless the proposed roadway width will provide adequate capacity in the design year. An analysis that shows that adequate capacity can be attained without the full standard width is not by itself adequate justification for a design exception, but can help support other arguments.

c. Continuity of Width with Adjacent Roadway Sections — if roadway sections adjacent to the proposed project have been constructed to a lesser width than the AASHTO standard, there is often no benefit to be derived from building the proposed project to the full standard width. (Example: A project is proposed for a 22 feet section of an existing 24 feet roadway. The existing roadway at the south end of the project was constructed eight years ago to 28 feet; and the roadway at the north end of the project was constructed four years ago to an 28 feet width. Even though the AASHTO standard may call for a 36 feet roadway, no benefit will be gained by constructing to this width as long as there are no safety or capacity problems.

d. Accident History — The accident history of the roadway section should be examined to determine if there have been a significant number of accidents that can be attributed to inadequate roadway width or shoulder width. Lack of such accidents can be cited as support for no additional widening of the section.

e. Shoulder width for local roads and collectors and a minimum “usable” shoulder width for arterials. The terms “graded” and “usable” are defined in the Green Book. The pavement foreslope may be considered part of the “graded” or “usable” shoulder if the foreslope is 6:1 or flatter. Assuming a pavement depth of 3.5”, a 6:1 foreslope

would give an additional 2 feet of shoulder on each side of the roadway. This would mean that a roadway constructed to meet a width requirement of 36 feet, with two 12 feet lanes and two 6 feet shoulders, could also be considered to meet an AASHTO requirement of 8 feet shoulders if the foreslope was 6:1 or flatter. The use of the 6:1 paved foreslope as part of the "graded" or "usable" shoulder must be documented in the ITD 783, Concept Approval.

f. Cost-Effectiveness of Incremental Changes in Cross-Section Design —widening a substandard width roadway shoulder will usually result in a reduction in the accident rate for that section of road. The cost effectiveness of widening a substandard width shoulder to a greater width can be estimated from the cost effectiveness of incremental changes in cross-section design. For certain existing shoulder widths, the safety benefit gained by widening is less than the cost of the widening itself and therefore not cost effective, thus a width design exception can be supported. Often an interim shoulder width will be more cost effective than widening to full standards.

Additional considerations — Such as environmental impacts, can be included as justification for certain width exceptions.

330.02 Cost Effectiveness. The term "cost effectiveness," is meant to apply to the general consideration of the relative worth of a highway project or individual design elements of a highway project. Are the highway projects or design elements worth the estimated costs in terms of returning to the public a benefit commensurate with the taxpayer's investment?

Cost effectiveness, benefit/cost ratio, rate of return, and payback period are some of the analytical methodologies used to quantitatively calculate the value of a proposed highway project or design element. The objective is to analyze all possible alternatives of providing the facility that will render the desired service and is used as an aid to reach the final decision on what course of action to take. Because of the objective nature of cost-effective studies, only those impacts that are quantifiable and which can be assigned a realistic monetary value can be considered. Cost effectiveness does not incorporate the impacts of such considerations as general design consistency, aesthetics, land values and uses, access, driver convenience and comfort, social ramifications, and environmental consequences. The final choice must also reflect these other considerations when given their proper weight.

In theory, design criteria generally reflect cost-effective considerations. However, because of the need to develop design criteria for widespread application, some criteria inherently assumes typical benefits and costs that would normally be encountered in the selection and design of a highway project. Obviously, what is actually encountered in the design process for a specific project may vary widely in terms of expected benefits and expected costs and therefore the cost effectiveness of normal design criteria must be considered based on the individual project and site.

330.03 Cost-Effective Analyses. Cost-effective analyses are conducted at many levels; the most common of which is the exercise of good engineering judgment. A rough estimate of construction and maintenance costs is usually available and when intuitively compared to the expected benefits based on a designer's perception of past experience, it is often obvious whether or not a design element is cost effective. In many cases, simple analysis

is the most practical in the interest of time. However, when the project represents a large dollar amount, or the actual costs and benefits cannot be reasonably estimated through judgment, or the project and its design become controversial, an in-depth cost-effective analysis is warranted. In these cases, the time and effort spent on conducting a detailed cost-effective study may be minimal when compared to the increased economies realized in the final product.

Cost-effective methodologies can calculate:

a. *User benefits and costs* for a highway project as a whole or for an individual design element within a highway project.

b. *Safety benefits* and construction costs for a highway safety project based on actual *accident experience* and the anticipated accident reduction of the proposed countermeasure.

c. *Safety benefits* and construction costs for a proposed highway safety countermeasure ***based on*** *the potential for accidents.* This methodology is applied to roadside obstacles.

Numbers 2 and 3 above are actually subsets of number 1 since accidents and safety are considered in the assessment of total user benefits and costs.

Separate cost-effective methodologies for highway safety have evolved because 1) the increased emphasis on highway safety has resulted in the designation of highway funds that are strictly for the purpose of reducing the potential for highway accidents; and 2) the "accident" information element offers an identifiable unit that is measurable, lends itself to data collection and statistical analysis, and has undergone extensive research to realistically establish social costs.

330.03.01 Cost Effectiveness Computer Programs.

Refer to the current AASHTO *Roadside Design Guide* for determining recommended programs.

Length of Need calculates the length of need for guardrail installation based on the AASHTO *Roadside Design Guide.*

Road X estimates the safety benefits and benefit-to-cost ratio that would be expected to result from improvements such as lane widening, shoulder widening, sideslope flattening, and roadside improvements on specific sections of rural, two-lane roads. Road X should only be used for highway sections with the following conditions:

- Two-lane rural roads with an ADT of between 50 and 10,000.
- Lane widths of 8 feet to 12 feet.
- Shoulder widths of zero to 12 feet.

Road X should also be used in the design of 3R (resurfacing, restoration, and rehabilitation) type projects, particularly for improvement projects that will be constructed on existing vertical and horizontal alignment and within the existing right-of-way.

330.04 User Benefit and Cost Analysis. Many methodologies have been developed and many references exist that address cost effectiveness for highway projects as a whole and for individual highway design elements. The basic approach is summarized in the following steps:

- Update user cost factors. Approximately every one or two years, the highway user costs for items such as time, fuel, and vehicle maintenance and depreciation should be updated.
- Select an economy study model to measure the cash outward and inward flows in equivalent dollars by use of a compound interest formula. AASHTO recommends the use of a discount rate to calculate present values.
- Estimate project costs.
- Calculate unit user costs. The user costs, as a function of traffic characteristics and highway geometry, should be estimated for the alternative designs including the "do-nothing" alternative.
- Calculate user benefits. The benefits for savings in vehicle operating costs, travel time, accident costs, and fares should be estimated.
- Estimate residual value. At the end of a facility's or design element's service life, some value will likely remain. This value should be estimated and its worth included in the methodology to offset project costs.
- Determine present values and economic desirability. The stream of user benefits and user costs over the design service life must be converted to a present value for comparisons between the two.

330.05 Safety Benefits Based on Accident Experience. Accident experience is usually the best indicator of future accidents. Therefore, if the data is available and given certain other information, the cost effectiveness of a proposed highway safety countermeasure can be accurately measured. This methodology is most frequently used for proposed projects that will be funded with money explicitly set aside for highway safety projects. However, the methodology is applicable to assess the cost effectiveness of a highway design element that is intended to reduce the frequency and severity of accidents.

A methodology for highway safety projects similar to the one presented in NCHRP 162 Methods for Evaluating Highway Safety Improvements is summarized in the following steps:

- Identify hazardous locations. By applying statistical analyses to accumulated accident data, locations can be identified that have accident rates higher than what can be attributed to chance (usually 95%).
- Identify the nature of the established accident pattern. By use of a collision diagram, the accident pattern can be established as it relates to the type of accident, weather conditions, and time of day.
- Select alternative improvements. Several countermeasures may be proposed to reduce the frequency or severity of accidents.

- Evaluate the estimated effectiveness of each alternative. Accident reduction factors can be applied for each countermeasure to estimate the impact of the countermeasure on the accident problem.
- Estimate project benefits. Based on the number and severity of the accidents, a dollar benefit can be assigned to each countermeasure.
- Estimate project costs.
- Convert project benefits and costs to an equivalent monetary value. The recommended method is to convert to an equivalent uniform annual cost over the estimated service life of the proposed countermeasure.
- Calculate a B/C ratio. A B/C ratio should be calculated for each countermeasure with the highest B/C usually considered the preferred alternative. Normally, a minimum B/C of 1.0 is used to decide whether or not a project should be undertaken.

330.06 Safety Benefits Based on the Potential for Accidents. It is unusual for a roadside location to have a sufficiently high accident experience to estimate potential accidents; however, run-off-the-road accidents represent a high proportion of highway fatalities and injuries. Therefore, roadside hazard improvements warrant consideration even if a particular location has never experienced an accident.

335.00 – PRELIMINARY DESIGN ANALYSIS

Design alternatives need to be reviewed showing the various design options with benefit/cost determinations and recommendations on an ITD 758, Alternate Solutions and Costs. The Phase I Materials Report, complete with the life cycle cost analysis, shall be included. Nonstandard design features or deviation from AASHTO and state standards that are known at this time will require approval and are to be included on the ITD 758. Alternatives to longitudinal encroachments on 100-year flood plains shall be documented. If the design alternative will be selected through the NEPA Process, it shall be documented in the Alternate Solutions and Costs.

335.01 Environmental Activities. Project development activities may begin as soon as the project is placed on the Highway Development Program. To determine the level of environmental documentation that is needed for the project, an ITD 0280, Feasibility Study, should be prepared.

The District Planner shall also request that an archeological reconnaissance be made on the complete right-of-way of the final highway location. The reconnaissance checks for archeological, paleontological, historical, or other sites of state and national significance that should not be destroyed or should be salvaged and may effect the final locations. If an archeological clearance is given to a project in the ground reconnaissance stage, further investigation may not be necessary. (See The Environmental Manual, Environmental Process, for more detailed environmental considerations.)

335.02 Traffic Volume.

For all rural roads other than freeways and arterials, the current year ADT (two years beyond the program year) may be used for determining standards. unless the design hourly volume (DHV) is greater than 100. If the DHV is greater than 100, then the projected DHV for 22 years after the programmed year should be used.

For rural freeways and arterials, the DHV (30th highest hourly volume) for 22 years after the programmed year should be used. Routes with a high percentage of recreational traffic (where the 30th highest hourly volume is greater than 15% of the ADT) may be designed with the 200th highest hour as the DHV if the expected maximum hourly traffic does not exceed the capacity of the highway.

Traffic volumes should be requested from the Division of Transportation Planning on an ITD 1151, Traffic Data Request, for 2 years and 22 years beyond the year in which the project is programmed. The request for traffic data, including any necessary turning moves, should be made as soon as the initial ITD 1414, Project Program Entry or Revision, is approved for preliminary design and environmental studies.

335.03 Functional Classification. The functional classification for a project should be obtained from the Division of Transportation Planning who is responsible for the establishment of urban boundaries and the functional classification of all public roads.

335.04 Access Control. Administrative Policy A-12-01, State Highway Access Control, serves as a guide in establishing access control. Location public hearings will include a discussion of access control that applies to the alternatives under consideration. An ITD 606, Access Control Determination, shall be submitted to the Roadway Design section to determine the type of access control to be employed on the project.

For Type V Access See FHWA Access Policy at
http://www.fhwa.dot.gov/programadmin/fraccess.html

335.05 Terrain. The selection of the appropriate terrain type is difficult because a project can encompass portions of two or sometimes all of the three terrain types.

LEVEL ROLLING MOUNTAINOUS

Refer to the Vertical Alignment section of the Green Book for guideline definitions of the three terrain types. The Highway Capacity Manual also contains general terrain definitions. Sound engineering judgment involving consideration of all factors should be applied.

335.06 Level of Service.

Recommended minimum levels of service are:

Highway Type	Type of Area and Appropriate Level of Service			
	Rural Level	Rural Rolling	Rural Mountainous	Urban/ Suburban
Freeway	B	B	C	C
Arterial	B	B	C	C
Collector	C	C	D	D
Local	D	D	D	D

(From the Green Book Level of Service section)

In some cases, the cost of construction for the recommended level of service becomes prohibitive and a lower level of service is acceptable for economic reasons. Justification for the reduced level of service must be documented.

> When comparing levels of service, each highway type uses a different methodology and criteria for determining the level of service.

335.07 Design Speed. Once the functional classification, terrain, and traffic volumes have been determined, the minimum design speed can be selected from the appropriate section of the AASHTO policy. Minimum design speed should only be used as the project design speed when there are topographic constraints or other restrictions. Otherwise, the highest design speed that is compatible with the topography and project economics should be adopted.

335.08 Super-elevation. The maximum super-elevation rate that is practical for a given location is controlled by climate conditions (snow and ice), terrain, rural or urban location, and volume of trucks. Normally, the maximum super-elevation rate on open highways in flat terrain would be 10%. However, in Idaho there are very few locations where this would apply and therefore a maximum rate of 8% is more logical. In urbanized areas, a maximum rate of 4% to 6% is applicable for moderate design speeds. On low speed urban streets with numerous turning moves, the super-elevation may be eliminated.

Once the maximum super-elevation rate has been established, the minimum radius can be determined from Exhibit 3-15 of the Green Book. Design super-elevation values for particular degrees of horizontal curvature can be taken from Exhibit 3-19 through 3-23 of the same text.

335.09 Roadside Hazards. Chapter 2, Roadside Safety and Economics, and Appendix A in the AASHTO Roadside Design Guide presents the approved method for evaluating countermeasures for identified roadside hazards. The analysis includes provisions for different design speeds, different roadway geometrics, and the ability to incorporate an estimated traffic growth rate. The procedure outlined assesses the potential for a given

hazard to be struck and assigns a cost to the hazard. By evaluating different options, the most cost-effective option can then be selected and establishes the following countermeasures in order of desirability:

a. Remove the obstacle or redesign so obstacle can be safely traversed.

b. Relocate the obstacle to a place where it is less likely to be struck.

c. Reduce the impact severity by using an appropriate breakaway device.

d. Redirect a vehicle by shielding the obstacle with a longitudinal traffic barrier and/or crash cushion.

e. Do nothing, i.e., leave the hazard unshielded.

335.10 Warrants for Traffic Barriers. Chapter 5 in the AASHTO Roadside Design Guide presents the warrants for Roadside embankment barriers. These warrants are based on the relative severity between the hazard and the traffic barrier, but do not address the question of whether or not a traffic barrier installation is cost effective. To assess the necessity of a traffic barrier:

- Assess the potential striking the hazard by estimating the lateral placement, width and length of the hazard, traffic volumes, highway alignment (geometry), design speed, and, likely, encroachment frequency.
- Calculate the average annual cost of the existing hazard by assigning a dollar value to the accident, and the initial and maintenance costs.
- Calculate the average annual cost for each appropriate countermeasure to establish the annual cost for a modification of the hazard or for installation of a barrier (which is also analyzed as a hazard). (The calculation of the annual cost for the existing hazard represents the cost of the do-nothing alternative.)
- Compare annual costs for each countermeasure to the annual cost for the do-nothing alternative to indicate which of the alternatives will extract the least cost from the highway user.

335.11 Rumble Strips.

Shoulder Rumble Strips

Rumble strips are an extremely cost-effective means of reducing single-vehicle run-off-the-road accidents. Because of this, all projects need to be analyzed to see if a need for installation of milled-in shoulder rumble strips exists and should be added to the ITD 758 under the alternatives. The following items should be considered:

- **Type of project.** It does not make sense to include rumble strips in certain types of projects such as enhancements, CMAQ, Bridge, ITS, etc., nor with spot location improvements.
- **Single-vehicle run-off-the-road (ROR) accident rate.** Calculate the Safety Index following the procedures in the Safety Evaluation Instruction Manual. Rumble strips will not provide a benefit where there are few incidences of ROR accidents.

- **Bicycle usage.** Adequate shoulder width must be available. Some routes have heavy bicycle usage, particularly in summer months, and it is important that rumble strip installations do not displace or endanger bicycle traffic on the shoulder. Refer to Appendix A.40, Pedestrian and Bicycle Facilities, and check with the State Bicycle Coordinator in the ITD Planning Division.
- **Shoulder width.** Generally, rumble strips should not be installed where the remaining shoulder width is less than 5’ (desirable) or 3’ (minimum) unless separate facilities are available for bicyclists. Refer to the item above. Also consider that the presence of guardrail, retaining walls or other continuous obstructions requires a minimum shy distance of 1’ for bicyclists in addition to the widths noted above.
- **Shoulder condition.** If the shoulder is in poor condition and the project does not include an overlay, rumble strips should not be included.
- **Residential roadside development.** Consider the effect of increased exterior noise levels from rumble strips.

Centerline Rumble Strips

Centerline rumble strips can be effective in reducing head-on and sideswipe accident rates in areas with curvilinear alignments. The use of centerline rumble strips should be considered where the rates for these types of accidents are higher than the statewide average. Special drawings will be required to depict the rumble strip locations and configuration. Centerline rumble strips should be no wider than 1’.

337.00 – SURVEY/LOCATION OF HIGHWAY PROJECTS

The location of most highway projects shall be mathematically tied to the Idaho State Plane Coordinate System, existing geodetic survey monuments, and property land corners through surveying methods and must comply with Idaho Code.

337.01 Land Surveying Required. Idaho Code requires that any department surveying for rights of way, material sources, tracts of land, or other property boundary determinations comply with the requirements for “land surveying.” The term “land surveying” includes the responsible supervision of areas for their correct determination and descriptions and for conveyance, establishment, or reestablishment of land boundaries and the plotting of lands and subdivisions. Any ITD surveys involving property boundary determinations or rights of way acquisition requires that a Land Surveyor supervise the land surveys and sign and seal related documents. Projects involving 3R type of work, maintenance projects, and other projects not having right-of-way acquisition can usually be excluded from land surveying requirements.

337.02 Corner Perpetuation and Survey Monuments Required. Corner perpetuation and filing (Idaho Code, Section 55-16) is required so that all property monuments within highway rights of way or those adjacent thereto are protected and preserved. Land survey monuments must be shown on all project plans. Idaho Code, Section 55-1612, makes engineers subject to disciplinary action by the Board if they do not indicate on their plans the presence of land survey monument that appear on a corner perpetuation record, BLM or GLO plat, record of survey, or subdivision plat. Anyone who prepares

plans that do not indicate the presence of land survey monuments and the construction of the facility results in the destruction of a land survey monument are also liable for civil penalties.

337.03 Flagging Colors.

On all preliminary surveys, the following flagging colors should be used:

Control Survey	Fluorescent
Centerline Alt	Red
Centerline Alt 2	Blue
R/W Alt 1	Yellow
R/W Alt 2	White

337.04 Control Surveys. The purpose of a control survey is to establish the position of the points required to locate the position of the highway facilities. This permanent project control network serves the following advantages:

Provides a control system of horizontal and vertical survey data for establishment of photogrammetric points.

Provides a convenient network of high order horizontal and vertical control points for subsequent construction surveys.

Control surveys are generally based on the network of horizontal and vertical monuments established by the United States National Geodetic Survey (NGS) and existing established land corners. Information relative to specific NGS survey monuments and the NAD83 Idaho Coordinate System is available by calling the NGS at (301) 713-3242.

337.05 Idaho State Plane Coordinate System. The Idaho State Plane Coordinates (ISPC) shall be used and the following information must be furnished for incorporation onto the plan sheets:

- A note indicating that ISPC (adjusted or unadjusted) were used. Show on the first plan sheet in the upper left corner the Coordinate Datum, Idaho Zone number (Western, Central or Eastern), Combination Factor, and a statement that bearings are Grid Bearings.
- Show Grid Bearings on each tangent and on other parts of the plan, where required, in a standard manner.
- Show ISPC for highway control points, such as P.I.'s, section corners, major monuments, etc., and at the beginning and end of the project. There must be at least two coordinate control points for each tangent to establish the azimuth or bearing of the line on the grid.
- Show gamma correction once for each plan sheet. If property extends from one sheet to the next, calculate a delta-alpha correction for the point of beginning.

337.06 ITD Project Coordinate System. The ITD Project Coordinate System is a grid system of rectangular Northing and Easting coordinates that are used to define the

location of any point in Idaho and provides a standard procedure based on a common datum referenced to a common origin. The coordinate system, based on NAD83, shall be used with coordinate points calculated for all project control survey points. All property monuments on the project should be located, marked, and referenced as part of the project control surveys. If construction will remove or disturb the property monuments, they shall be reestablished and monumented as part of the construction project by a licensed Land Surveyor.

337.07 Project Topographic Data. The project topographic data can be obtained from field surveys or photogrammetric methods. On small projects (minor structure, intersection, railroad grade crossing improvement, or small materials source), a field topographic survey is usually faster and more convenient in obtaining the field data for design purposes. On larger projects, photogrammetric surveys are recommended to provide data compatible with the ITD Computer-Aided Drafting and Design System and to allow photogrammetric remeasure applications.

Advance planning is required to establish a survey control network and photogrammetric picture points, obtain aerial photography,
and digitize data for mapping. Allow at least **24 months**
prior to any need for topographic data for project design activities.

The project control network traverse should be tied to two (2) separate survey control points off the project to facilitate correction and adjustment of errors of the traverse. All points of the control network should be established as permanent points of horizontal and vertical control and located so they will not be disturbed by the project construction. The specifications for traverse, triangulation, and leveling are given in the FHWA's Surveying and Mapping Manual. The survey points for the project control network shall normally be Second Order Level of Accuracy with appropriate surveying ties to NGS monuments and existing land corners. For all other survey points (photogrammetric picture points, structure control points, location surveys, and project details), a Third Order Level of Accuracy is sufficient. (See Figure 3-6, Survey Orders of Accuracy.)

Figure 3-6

SURVEY ORDERS OF ACCURACY

TYPE OF WORK	ORDER OF SURVEY			
	First	Second	Third	Lower
ADVANCE PLANNING SURVEY				XX
PRELIMINARY LOCATION SURVEY			XX	XX
MAPPING (large and high-density areas)	XX	XX		
PRIMARY CONTROL	XX	XX		
MAJOR STRUCTURES	XX	XX		
MINOR STRUCTURES		XX		
CENTERLINE SURVEY (high-density urban area)		XX		
FINAL LOCATION SURVEY			XX	

337.08 Record of Surveys. The record of surveys (Idaho Code, 55-19) by ITD that define the project rights of way and adjacent property boundaries shall be filed with the applicable County Recorder.

The survey map shall meet the requirements defined in Idaho Code, 55-1905, and shall provide the data outlined therein. The map shall contain a certificate of survey and a seal and shall be signed by a licensed Land Surveyor. (Right-of-Way plans contain all the information necessary to prepare property descriptions, but do not contain all of the requirements for records of survey, so a separate record of survey must be prepared.)

A special record of survey may be required for material sources, maintenance sites, or small projects where only a few parcels are involved and normal rights of way plan sheets are not required. In these cases, a record of survey shall be prepared and filed.

340.00 – FLOOD CONSIDERATIONS

If the proposed route encroaches on a 100-year flood plain that has been identified by FEMA and is shown on their map, Roadway Design must evaluate the flood hazards of the new location and various alternatives to longitudinal encroachments, and as far as practical, shall preclude the uneconomic, hazardous, or unnecessary use of the flood plain by this route.

345.00 – PRELIMINARY STRUCTURES STUDIES

All structure locations shall be studied for various points such as foundation conditions, skew possibilities, relative grade line separation, structure types, avoidance of regulatory floodways, etc. The District shall conduct these studies and may request assistance from the Bridge Section for aid in the field studies. Contact with the Idaho Fish and Game Department's local representatives for input is essential. See Section 600.00 and Appendix B for additional information on hydraulic data and structures.

350.00 – PRELIMINARY DESIGN REVIEW

The purpose of the Preliminary Design Review is to initiate, resolve, and approve the overall design aspects. Actions that are included in the Preliminary Design Review are design considerations, opportunity to attend, review topics, and the report.

An approved ITD 757, Design Standards, and ITD 758, Alternate Solutions and Costs, are required prior to the Preliminary Design Review. The ITD 759, Roadway Inventory that itemizes existing conditions, may be submitted with the Preliminary Design Review submittal. Depending on the design constraints, approval of Phase II Materials Report may be obtained prior to, concurrent with, or subsequent to the Preliminary Design Review. Approval of the Phase II Materials Report is required prior to approval of Final Design.

350.01 Design Considerations. The plans, rough sketches, and/or typical section drawings should be prepared showing:

- Project limits, including the station and milepost,
- Length of transitions,
- Basic design vehicle at intersections (Select the design vehicle to be used in geometric design of intersections and pavement markings.),
- Number of lanes at the intersection approaches, including auxiliary lanes for turning and turning movements in design hourly volume (DHV),
- Structure coordination,
- Passing opportunity,
- Existing utility facilities, and
- Right-of-Way requirements.

Potential environmental impact shall also be considered. For bridge plans and other data requirements, consult the Bridge Engineer and the Bridge manual.

350.02 Opportunity to Attend. The District Right-of-Way Supervisor or a representative should be notified of and offered the opportunity to attend the Preliminary Design Review when any right-of-way will be acquired. The District Maintenance Engineer or a representative should also be notified of and offered the opportunity to attend. On projects involving local public agencies and their consultants, an opportunity should be given to review plans and attend the review for their input. The Port of Entry Manager shall be involved in the review of all projects that affect a port of entry building or scale.

350.03 Review Topics.

Review topics should include:

- Hearing and plan requirements,
- Available environmental documents (All environmental, Section 4(f), and historic property constraints must be identified.),

- General standards of the design that are appropriate for the conditions and the programmed cost of the project,
- Context Sensitive Solutions
- Discuss materials issues and Material Reports requirements,
- Plans for compliance to local ordinances, planning, zoning, building setback, building restrictions, fire codes, school restrictions, flood plain limits, and any other regulations that have an effect on the proposed design and right-of-way acquisition,
- Effects and evaluation of relocation assistance actions, and
- Recommendations and suggestions from headquarters and outside agencies.

350.04 Report on Recommendations/Suggestions. The District prepares a letter summarizing the decisions in regard to the comments and suggestions presented at the Preliminary Design Review and received from headquarters sections and outside agencies. Copies of this letter shall be furnished to all parties concerned.

350.05 Design Plans for the Preliminary Design Review. Design plans that are required for the Preliminary Design Review are a set of 11” x 17” black and white plans (some may be Xeroxed) and are to be sent to the Roadway Design section. The information and plans may be in rough draft form. Pencil sketches of items (intersection layouts, etc.) and handwritten materials are acceptable. The data supplied shall be complete enough so line, grade, and general design concepts may be approved. Show mileposts on the plan sheets at the beginning and ending of each roadway project and equate mileposts and stationing on all projects when both are used for project control.

For signal projects, show either mileposts or the stations of intersections and ties with the existing cross streets where possible. Note on the plans the type, location, and general design features of all existing and planned facilities such as signing, illumination, intersection data and features, and other related items that will affect the project design. Detour requirements and development of the TCPs should also be shown.

350.06 Plan Sheet Checklists. The following can be used as a checklist for the usual plan sheets that are required for the Preliminary Design Review. Also, see Figure 9-1.

Roadway Group

- **Title Sheet.** The title sheet shall be part of the Preliminary Design Review requirements for plans and should also be used for the hearing plans.
- **Total Ownership Maps.** Preliminary total ownership maps are based on the project’s preliminary design information obtained from the county tax assessor's records. The maps are used for reference by title companies in title searches and preliminary property studies involving damage and severance, economic impacts, and preliminary relocation assistance studies. The preliminary total ownership map does not require all of the ownership to be shown, but must show sufficient dimensional and graphic data to permit ready identification and correlation with the legal description of all effected ownerships. The map must show alignment, property lines (estimated), and planimetric features and topography.

- **Typical Sections.** Draft form is acceptable.
- **Plan and Profile.** Include bearings, grades, curve data, super-elevations, and R.L. and Z distance.

Special Drawings Group

Drainage. Include wetlands and flood plain limits.

- **Minor Structures.** Minor structures are structures with a span of 20’ or less (headwalls, retaining walls, etc.) that may be designed by the Bridge section, but will be included in the roadway summary items.
- Headwalls for pipes and arches larger than 48” and bottomless arches with footings must be submitted to the Bridge section for design or verification of design and, therefore, require submittal of a contour map; Phase IV Materials Report; channel cross sections; an ITD 210, Hydraulic Structures Survey; and a situation and layout sheet.
- Standard Drawings D-7 through D-9 should be used for pipes and arches 48” or smaller.

Traffic Group

Delineation. Determine the extent for no delineation; partial, public road approaches and transitions only; partial, horizontal curves, and public road approaches; full delineation per Standard Drawing G-3 and the Traffic manual; and snow poles.

- **Signing.** Show the intent legend and the approximate location of signs (existing to be retained, temporary, and permanent).
- **Illumination.** Show areas and discuss the intent to be covered, proposed intensity, minimum uniformity ratio, and type of illumination.
- **Railroad Crossings.** See Subsection 360.00.
- **Pavement Markings.** Show the location and extent, including edge lines planned; transitions lengths; stop bars and crosswalks; two-way turn lanes; turn bays – right and left; channelizing lines; Bike lanes, and center lane lines. (The type of material, color, width of lines, and other minor details may be shown later. For scales of pavement marking plans, see Subsection 807.04.)
- **Traffic Control Plans.** See Section 355.00.
- **Minor Intersections.** Show the number of lanes of each approach and the width of the approach; corner radii; design vehicles used; and signal warrant worksheet (if applicable).
- **Major Intersections or Traffic Signals.** Projects that involve intersections of major streets or highways and intersections with signal warrants within the design year should include an individual site plan showing the existing conditions. Where approach speeds are less than 40 mph, the site plan scale should be 1”=20’ and should extend at least 150 feet on each approach. Where approach speeds are

40 mph or more, the scale should either be 1”=20’ or 1”= 40’ and should extend at least 350 feet on each approach.

Site Plan Requirements

The following should be included on any site plans:

- Show north arrow.
- Show street names, route numbers, and stationing.
- Show edge of existing surfacing, lane and shoulder widths, all pavement markings, right-of-way and property lines, approximate grades, drainage pipes and inlets, intersection radii (curbed or uncurbed), driveways, and barriers.
- Show utility poles, street lighting, traffic islands, traffic signal poles, vehicular detectors, signal heads, and controller, if any.
- Locate no parking and restricted parking zones, hours, etc., bus stops, and direction of one-way streets, if any.
- Show all traffic control signs and the speed limits on each approach.
- Show existing buildings and locate any obstruction to sight distance for the driver approaching the intersection including trees, shrubbery, fences, billboards, walls, etc.
- Show location of any railroad grade crossings within 300’ of the intersection. Give the name of the railroad company. Indicate the existing protection and whether the railroad is a siding, mainline, etc.
- Indicate distance to the nearest existing traffic signal on each approach if 1 mile or less. Show municipal boundaries if within the area of the plan and identify the municipality.
- Show condition of pavement on all approaches where loop detection is proposed.
- Locate overhead wires, underground utilities, fire hydrants, basements, and any other appurtenances that could influence the signal design.
- Supplemental photos often furnish additional information in addition to that shown on the plan sheet. Two photos taken from each street approach, one from fairly close and the second from about 100 feet back, make a good reference for intersection details.
- Right-of-Way Group
- Right-of-Way. Show existing right-of-way lines and the proposed (approximating is acceptable) right-of-way lines for the project, meeting design requirements.
- For Railroad encroachments see Subsection 360.00.

Major Structure Group

Major structures are structures with a span over 20 feet in length and will be included in bridge summary items. Preliminary bridge plan preparation consists of a situation and

layout sheet and a foundation investigation sheet (see the Bridge section Office Standards for situation and layout sheet requirements). Sketches or views of out-of-the-ordinary structure details should also be included in the submittal on additional sheets if necessary. The submittal should be accompanied by District-approved roadway profile and alignment data.

Plan preparation will always include a separate roadway sheet showing the plan and profile for the bridge location and all related items and a typical section sheet showing the existing and proposed work to be done, even if it's by the county or others. This requirement applies especially to “bridge only” projects. The bridge situation and layout sheet does not replace the separate plan and profile sheet requirement.

A Foundation Plat, prepared in accordance with Section 250 of the Materials manual and showing test hole locations, should also be included.

Guardrail Requirements

Guardrail requirements are based upon an economic analysis that considers:

- The cost of right-of-way and grading to preclude the need for guardrail.
- The cost of the guardrail.
- The accident costs.

355.00 – TRAFFIC CONTROL PLAN (TCP)

A TCP shows ways of handling traffic through a specific highway or street work zone or project. The TCP may range in scope from a very detailed plan designed solely for the specific project to standard plans, from the *Manual of Uniform Traffic Control Devices*, or from a standard highway agency manual. The detail in the TCP will depend on the project complexity and traffic interference with construction activity.

Consideration should be given to the safe storage of materials and equipment during construction. Include designated storage and staging areas when limitations exist inside the right-of-way. See Figure 5-7 and Figure A-2.

355.01 Public Convenience Measures. Public convenience must be considered on every project. All contract construction plans will include a traffic control plan with public convenience being considered. Public convenience measures can be optional (not required) if the level of service is C or better under the construction restriction and if the daily road user cost is less than liquidated damages. To minimize inconvenience to the motorist and maintain property owner access at all times, consider the following measures.

Analyze the capacity of the highway during construction to determine construction traffic control needs and detours. Use two-lane two-way detours when the ADT exceeds 6,000 or DHV exceeds 1,000. Projects should contain lane rental provisions when the roadway is near capacity with the number of lanes provided in each direction.

Use restrictive specifications on commuter routes with high directional split or high peak hour volumes. Schedule traffic-delaying work (use a contractor’s note) to avoid rush hour

commuter traffic in major urban areas, heavy holiday traffic, and events that may cause peaks and associated congestion. Consider requiring nighttime construction operations.

Consideration should be given to access for emergency vehicles on projects with considerable traffic control and narrow work zones and detours. Also, pullouts on .5 mile intervals should be created for disabled vehicles and staging of incident management and law enforcement vehicles. For large projects in congested areas controlled access areas, motorist guidance programs and contractor furnished courtesy patrols should be considerations.

Use incentive provisions for early completion on projects that are in urban areas (highways where traffic exceeds 3,000 ADT on a 2-lane or 6,000 ADT on a 4-lane) or on projects that will significantly impact traffic and do not have practical detours. Incentive provisions should not exceed five percent (5%) of construction costs on major projects. Incentives on intersections, small bridges, and other minor projects should only be considered on a case-by-case basis. Incentives should not be specified for minor projects if either the short duration of the project or the value of the contract would make the incentive infeasible.

Do not use incentives if utility work by others will interfere with construction, if construction is anticipated to extend through more than one construction season, if moisture-sensitive soils may be encountered during wet-weather construction, or if there is uncertainty about subsurface materials.

355.02 Development. A TCP shall be developed and included in the contract plans for all federal-aid highway projects and should be developed for non-federal-aid projects where significant interference is expected. The scope of the TCP should be determined in the preliminary design stage of a project and the TCP should be completed and included in the plans prior to the Final Design Review. Separate TCPs should be prepared for each stage of construction.

TCPs for interstate projects should provide for minimum interference with the free flow of the traffic. Stopping interstate traffic should be avoided unless no other feasible alternative exists. If traffic must be stopped on interstate projects, traffic signals are recommended. Consideration should also be given to access for emergency vehicles, pullouts for disabled and emergency vehicles, motorist guidance programs, and courtesy patrols.

Contractors may develop and use their own TCPs if approved by the department and determined to be as good as or better than those provided in the contract.

355.03 Widths. Construction zones should be wide enough to handle 18 feet wide loads. If the detour will not handle these wide loads, the contractor must notify the Port of Entry Over-Legal Permit Unit at (208) 334-8418 at least seven days prior to opening the detour to traffic. Further instructions should be covered in the Special Provisions.

355.04 Two-Lane, Two-Way Operation (TLTWO). Guidelines for proposing the use of TLTWO of traffic on one roadway of a normally divided highway are as follows:

- TLTWO shall be used only after careful consideration of other available methods of traffic control.

- The desirable length of TLTWO is 3 miles or less and should not exceed 5 miles.
- The safe speed of median crossovers for TLTWO should equal the design speed of the highway facility.
- Consideration for emergency vehicles access to all lanes of traffic should be given.
- Pullouts on 1 mile intervals are recommended for disable vehicles, staging of incident management and law enforcement vehicles.
- Courtesy patrols for disable vehicles and incident management should be considered.
- If the TLTWO is proposed, the TCP shall meet the required specifications in the Traffic Manual for appropriate durations.

355.05 Signing and Channelization. Sequential arrow boards may be used in addition to the other signing and delineation whenever closure of lanes is necessary on rural multilane highways.

Auxiliary advisory speed signs shall not be used alone. Auxiliary speed signs may be used when mounted under standard warning signs.

The Slow to "XX," signs, may be used when necessary to advise traffic that a given speed is desirable at that location.

If reduced speed limits are necessary, speed limit signs may be used, provided that the speed zones are properly established and approved in accordance with the Construction manual, Regulatory Speed Control Zones.

When concrete guardrail is used adjacent to traffic lanes, the guardrail should be adequately delineated so as to be highly visible to nighttime drivers.

Pavement markings (temporary tape, painted lines and symbols, thermoplastic markings, and raised markers) that are no longer applicable and that might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as possible.

355.06 Construction Crossovers. Construction crossovers for use by the traveling public should be designed to the speed of the roadway and anticipated volume of traffic during construction. The crossover shall be located at logical project termini and shall be left in place for future projects. A positive restriction (earth berms, etc.) shall be placed on the crossovers to prevent random use when the project is completed.

355.07 Bid Items. Item 626-100A, Rent Incidental Traffic Control Item, Item 626-105A, Traffic Control Maintenance, and other items in Sections 626 or 630 in the Standard Specifications shall be used as payment coding for:

Incidental traffic control devices and hardware that is not included in other pay items;

Relocation and maintenance of devices paid for or rented under other bid items; and

Costs associated with providing, monitoring, and supervising traffic control devices.

358.00 – GOVERNMENTAL PERMITS

Projects may require one or more permits from state, federal, or local agencies. Permits are normally obtained through an application process. Project approvals are obtained through coordination and negotiation with the approving agency. Most permits are related to environmental documentation and can also require supplemental materials. A table with regulatory provisions is outlined in The Environmental Manual, Government Permits.

360.00 – RAILROAD ENCROACHMENTS – GENERAL

ITD has developed the "Railroad Guide" with information and procedures regarding highway projects impacting railroads.

Most highways encroach onto railroad property by easements granted from the railroad companies. Refer to Section 400 of the latest version of the "Railroad Guide" for information of acquiring property rights from railroads. Refer to Section 500 of the latest version of the "Railroad Guide" for information concerning the design process involving railroad.

365.00 – AIRPORT CLEARANCE REQUIREMENTS

Any proposed new construction or alteration of an existing facility that may impose an obstruction to present or future air navigation must be coordinated with the Federal Aviation Administration (FAA) and with the department's Division of Aeronautics (Aeronautics). The FAA and Aeronautics require notification of proposed construction or alteration that contain vertical elements exceeding limitations established in Federal Aviation Regulations Part 77. The federal regulations ensure that the expenditure of public funds is in the public interest, coordinate airport expansion and highway construction, provide for safety of the public in the air and on the ground, and inform FAA and Aeronautics of potential hazards so as to prevent or minimize the hazard. Construction that does not exceed the general limitations are considered to have little or no potential for a hazard to air navigation. Additional reference material on airport clearance can be found in:

FHWA, Highway Improvements in the Vicinity of Airports

Federal Aviation Regulations Part 77, Objects Affecting Navigable Air Space

Division of Aeronautics, Marking of Obstructions to Air Flight, *Idaho Airport Facilities Directory*, Idaho Aeronautical Chart, and IDAPA Rule 39.04.01

Idaho Code 21-513 through 21-520

Coordination with Local Airport Officials

Projects within 2 miles of an airport will be carefully examined. If FAA and Aeronautics must be notified of the proposed construction, or for any project when considered appropriate, the District will contact the local airport authority. Planned or probable expansion of the airport that may cause substandard clearances to the highway project should be discussed. Proposals to eliminate conflicts should be initiated by the District

when practical. Unusual or controversial highway-airport situations will be brought to the attention of the FHWA.

Conditions Requiring Notification

Aeronautics requires notification of any structure that would be 150 feet above the ground or water surface. FAA requires notification of any structure that would be 200 feet above the ground or water surface. Aeronautics and FAA also require notification of any proposed construction or alteration of a greater height than an imaginary surface sloping outward and upward at one of the following slopes around runways and heliports:

- 100 to 1 for a horizontal distance of 2,000 feet from the nearest runway for airports or seaplane bases with at least one runway longer than 3,200 feet.
- 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway for airports or seaplane bases with no runway longer than 3,200 feet.
- 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and take off area of heliports.

Vertical elements for a highway include the height of the vehicles using them and any structure elements such as signs, lights, and signals. The height of vehicles is 17 feet on interstate highways, 15 feet on other public roads, and 10 feet or the height of the highest mobile object expected to use private roads and driveways.

Notification requirements apply to military bases and airports that are available for public use and are listed in the Airport Directory of the current *Airmen's Information Manual or the Idaho Airport Facilities Directory* published by the Idaho Transportation Department.

Exceptions to Notification Requirements

Notification is not required for the following:

- Airports available for private use only.
- Highway projects on which structures, the highway, and mobile objects would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height.
- Highway projects on which structures would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded that it will not adversely effect safety in air navigation.
- Projects that may be considered stage construction of projects previously coordinated with FAA and Aeronautics.
- Minor improvements such as pavement overlays, seal coats, updating signing, or guardrail unless vertical elements such as lights, signals, overhead signs, or relatively tall construction equipment are involved.

The District shall send a memo to the Roadway Design section stating that notification is not required and how the “no notification” determination was made.

Procedures for Notification

When FAA and Aeronautics notification is required, the District will prepare a *FAA Form 7460-1, Notice of Proposed Construction or Alteration*, for projects originating in the District. Outside agencies involved in plan preparation may prepare this form and submit it with the required project data to the District. The FAA Form 7460-1 is a five-page packet with carbons that can be obtained by contacting the Idaho Transportation Department, Bureau of Aeronautics, 3483 Rickenbacker Street, Boise, Idaho, 83705; telephone number (208) 334-8775. The notification must use an original of the form, not a reproduction.

The completed form and three copies are to be sent to the Roadway Design section with a highway map or drawing showing the airport and the construction, as shown on the Sketch Map (Figure 3-9). The map or drawing may be made on county or city maps or on separate sketches and shall be sufficiently detailed both vertically and horizontally to show the effect of the highway project on the airport and the effect of the airport on the highway project.

Roadway Design will review the form and map for completeness and forward to FAA's Northwest Mountain Regional Office in Renton, Washington. Copies will be sent to Aeronautics and the District. FAA or Aeronautics will determine if the airport will be a hazard to air navigation and require any special lighting or marking. When considered appropriate, additional study may be required.

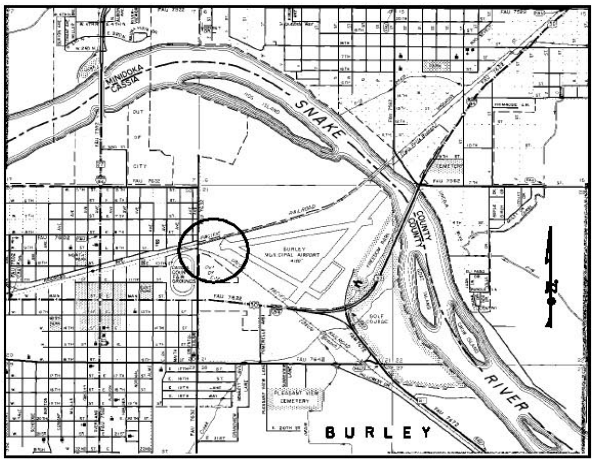
365.01 Cooperation with Aeronautics and Public Transportation. Aeronautics will receive copies of all construction programs, including state maintenance and stockpiles. When requested by Aeronautics and approved by the District Engineer, the District will include airport paving, seal coats, or crushed aggregate for airport construction or maintenance with ITD projects for similar work.

Figure 3-9

SKETCH MAP

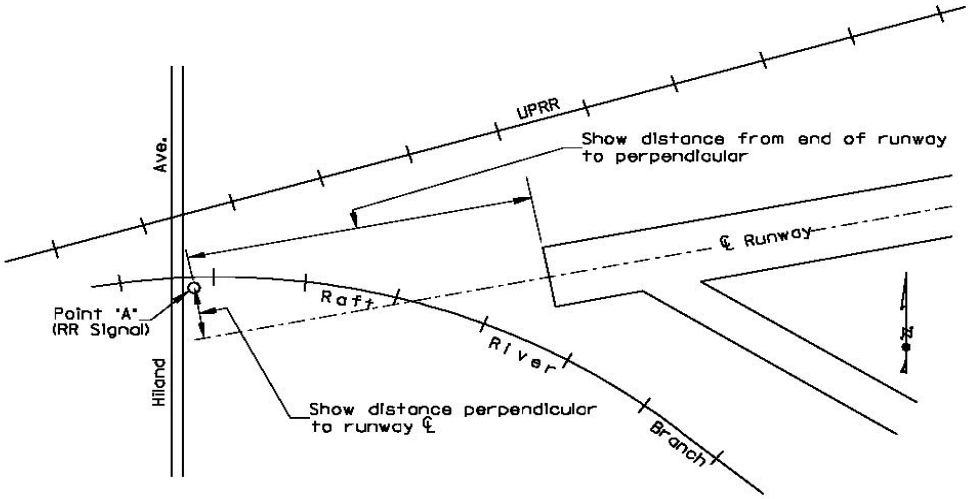
ITD 1767 12-98
Form use : Mtce Projects

metric
Figure 4–09
May, 1999



Point	Point Elev.	Horiz. Dist.	Vert. Dist.
"A"	1270.409	181.966	5.73

* from NW end of runway.
Elev. at end of runway is 1264.676.



SKETCH MAP

370.00 – UTILITIES – GENERAL

Utility facilities shall mean all privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electricity, light, heat, gas, oil, crude products, ore, water, steam, waste, storm water not connected with highway drainage, and other similar items. Idaho Code grants Utility Companies the right to occupy public right-of-way with their facilities and authorizes the Idaho Transportation Board to control the use of the right-of-way.

ITD has developed the "*Guide for Utility Management*" with information and guidance regarding the coordination and administration of utility facilities installation, relocation and adjustment within the right-of-way of the State Highway System and for highway improvement projects using Federal-Aid funds. Refer to Section 400 of the latest version of the "*Guide for Utility Management*" for information concerning the design process incorporating utility facilities.

375.00 – PUBLIC INVOLVEMENT

Public involvement is a process for including communities in the development of ITD highway projects. The U.S. Department of Transportation defines public involvement as "two-way communication aimed at incorporating the views, concerns and issues of the public into the decision-making process." The public provides input on transportation needs, concerns and environmental considerations. ITD uses this input to help make transportation decisions.

Decision makers often forget the importance of this two-way communication. They mistake public education for public involvement. Public education is "one-way communication intended to inform the public." Certainly public education is vital because it allows ITD to inform people of critical issues. Public involvement is critical during all phases of a project. Public education is especially critical during later phases when project construction directly influences citizen's daily travel.

Decision makers also forget the range of public involvement planning. Public involvement during the development of a highway project encompasses much more than information meetings or public hearings. Involving the public by sharing and collecting information begins early and ranges from one-on-one meetings to attending local city council meetings. Public involvement continues through the life of a project. By knowing the needs and concerns of a community, Context Sensitive Solutions can be addressed and ITD can develop a project that best meets the needs of ITD and the community it serves.

375.01 Public Involvement Definitions.

Scoping: A preliminary process for determining the scope of issues to be addressed in the environmental document and public involvement process. Scoping identifies significant issues related to a proposed action. It occurs early in the project development process.

Public Involvement Plan: A document that identifies public involvement goals, objectives and strategies and details the methods and tools for soliciting public involvement in the development of highway projects.

Public Information Meeting: An open meeting to discuss proposed alternatives of a highway project. The meeting is held before a specific alternative is chosen.

Public Hearing: An open meeting to discuss and take public testimony on the proposed alternatives of a highway project. The hearing is held before a specific alternative is chosen.

System Action: The process used to abandon, relocate, or replace a highway serving or traversing any city. Idaho Code 40-310 requires that before the Idaho Transportation Board can undertake a system action affecting any highway serving or traversing any city, a public hearing in that city must be held.

375.02 ITD's Need for Effective Public Involvement

ITD's mission is to "provide high quality, cost-effective transportation systems that are safe, reliable, and responsive for the economical and efficient movement of people and products." This mission is fundamental to life in Idaho, where highway systems span a huge geographic area and serve more people than other modes of transportation. Within that mission, the department identifies necessary highway projects, which involves considerable time and money.

To accomplish our mission, ITD must involve the public in meaningful ways during project development. Only the community can tell the department its concerns and needs. Once the department understands those concerns and needs, it can:

- Meet its public involvement goal and objectives
- Make sound decisions
- Fulfill our legal responsibilities

<u>Meeting Public Involvement Goal and Objectives</u>

ITD's goal for public involvement is informed decisions. Public involvement enables the department to gather concerns and needs of the public to be considered during the decision-making process. ITD strives to meet its public involvement goal through the following objectives:

- Communicating complete and accurate, understandable, and timely information to the public throughout the project development process
- Actively gathering input from the community by providing citizens with meaningful opportunities to participate in the development and decision-making process
- Complying with requirements of Title VI Civil Rights Act of 1964 and ensuring all citizens regardless of race, income or physical limitations have the opportunity to participate
- Providing opportunities for early and continuing involvement

- Considering and responding to community input in project development studies and in final decisions
- Designing highway locations that are consistent with federal and state laws and sensitive to local goals and objectives

Making Sound Decisions

By meeting the objectives listed above, ITD can ensure meaningful public involvement contributes to sound decisions. ITD not only strives to provide a safe and efficient transportation system, but also considers Context Sensitive Solutions in the preservation and enhancement of the economic, social and environmental conditions in our state.

The purpose of early involvement is to educate and receive public input on developing a project. Many of these stakeholders will enthusiastically support ITD concepts and designs. Others will have reservations because of issues the department has not considered or was not aware of. By expressing their concerns, and possible solutions, these stakeholders help identify the scope of a project and the degree of future public involvement and public education needed. In addition, if stakeholders have several opportunities to participate in the decision-making process, they will understand why the department decided on a particular course of action.

Public involvement truly must be two-way communication. ITD will erode public trust in our department if only our words, not our actions, say public input is valued. Neither ITD nor its consultants should use public involvement and the decision making process to justify decisions that have already been made. ITD must also recognize that we cannot please all the people all the time. ITD should not expect that, by planning and implementing public involvement, its employees and consultants turn all project opponents into supporters. The department strives for valuable communication that helps "provide high quality, cost effective transportation systems that are safe, reliable, and responsive for the economical and efficient movement of people and products."

Fulfilling Legal Responsibilities

Public involvement is mandatory in order to meet federal requirements. Following is a list of federal legislation, regulations and policies that guide public involvement in project development:

- 23 U.S.C. 128
- 23 U.S.C. 109 (h)
- SAFETEA-LU (HR3)
- Intermodal Surface Transportation and Efficiency Act 1991 (ISTEA)
- Transportation Efficiency Act of the 21st Century (TEA-21)
- National Environmental Policy Act (NEPA)
- American with Disabilities Act (ADA)
- 23 CFR 771.111 (h)
- 23 CFR 771.111 (2) (ii)

- 23 CFR 771.119 (e) and (f)
- 23 CFR 771.123 (g) and (h)
- 40 CFR 1500 – 1508

375.02.01 A General Approach to Public Involvement

To meet the needs of both the project and the public, ITD encourages planning public involvement that meets three criteria—public involvement that is early, integrated, and documented.

Early Public Involvement

By scoping and planning ITD can develop meaningful public involvement and address concerns early in the process. By addressing concerns early, ITD will have a much better opportunity to ensure that controversy doesn't stop a project and erode public trust. The time and effort the department spends involving the public early can expedite project development because of the public support and confidence the department has earned in the process.

ITD should scope and plan for public involvement early in the project development process. Scoping assists in identifying the segments of the public that are likely to be affected and or impacted by a project and determine attitudes toward the project.

ITD generally recommends that scoping a project for public involvement occur after or toward the end of concept scoping.

ITD Public Involvement Scoping Questions

The department has developed scoping procedures found in Section 325.03 Concept Scoping Procedure. Answering the following scoping questions as a step in completing the ITD 2708 Preliminary Project Concept is recommended.

Project origin and background

a) Why is this project in the program?

b) Why is this project needed?

c) What are the concerns or history of public involvement in the communities affected by this project?

d) What does the community (elected officials and others) know about this project?

Project Impacts

a. What are the benefits of this project? How will it improve the community?

b. Will the project change the character or function of the highway? How?

c. Have all Context Sensitive Solutions and any special concerns associated with the project been addressed?

Stakeholders

a. Who is impacted by this project? Who are the project stakeholders? (This list should be updated as needed throughout the project.)

b. What is the best way to provide information to stakeholders?

c. What are the best ways to gather input from stakeholders? What is the best way to develop two-way communication with stakeholders?

d. Whose needs will be met by this project?

e. Whose needs will not be met?

f. Are any minority, low-income, Indian tribes, elderly or other populations with special needs affected or impacted by this project?

g. What is the best way to develop two-way communication with minority, low-income, Indian tribes, elderly or other populations with special needs affected or impacted by this project?

Schedule

a. What is the schedule for project development?

b. Will the project require a merger process, and if so, why?

c. What community events could be affected by this project?

Legal questions

a. Will right-of-way need to be purchased? If so, how much, and what actions are necessary?

b. What are the mandates or regulations governing this project?

c. What are the possible environmental or cultural impacts?

d. What impacts will there be to roadways or facilities under another agency's jurisdiction?

Resources

a. What resources are needed to implement public involvement for this project?

b. What resources do I have to implement this project? If resources are not adequate, what steps can be taken?

Developing a public involvement plan will be much easier once scoping questions have been answered.

Integrated Public Involvement

Project design and public involvement should go hand in hand. Public involvement activities should be integrated into the project development process and not thought of as separate. The best public involvement is going to result from close coordination with the project manager, project team members, and the ITD public involvement coordinator and consultants. Depending on whether transportation projects are expected to be simple or complex, the appropriate level of public involvement can be identified.

Documented Public Involvement

ITD needs to document our activities and the outcomes of department communication with the public and specific stakeholder groups. This documentation allows ITD to track decisions and justify them if necessary. Documenting informal meetings with the local mayor is equally as important as the formal recording of citizen comments at a public hearing.

As part of the documentation process, attach the responses to the scoping questions with the *ITD-2708 Preliminary Project Concept form*. For complex projects, submit the public involvement plan to Headquarters Office of Public Affairs, public involvement coordinator and attach it to the project's *Location and/or Design Study Report*. In addition, a brief description should be included in the report that details citizen comments and concerns and how the department addressed those concerns. Once project development is complete, several public involvement documents need to be included in the resident engineer's file to assist with public information efforts during construction.

375.02.02 Developing a Public Involvement Plan.

The different components of a public involvement plan are:

1. **Project Introduction.** This section of the public involvement plan should explain the project, as well as provide any background information about the project. This section will also set the tone for the project's public involvement and may be useful when developing materials for the project.

Goals and Objectives of Public Involvement in the Project. Every public involvement plan begins with ITD's goals for public involvement.

GATHER THE CONCERNS AND NEEDS OF THE PUBLIC TO BE CONSIDERED DURING THE PROJECT'S DECISION MAKING PROCESS.

USE INFORMATION GATHERED FROM THE PUBLIC TO MAKE INFORMED DECISIONS.

The objectives should be derived from the specific circumstances of the project. The more specific the objectives, the better they will guide the public involvement plan. Objectives provide justification for all other activities included in this plan.

Project Stakeholders. This section of the public involvement plan should cover two categories of information. First, it should identify who might be interested in participating and whose participation is necessary for the department to make sound decisions. Next, it should identify the best channels of communication with stakeholders and what information these stakeholders need about the project.

Project Strategy. This section of the public involvement plan should identify the general approach and public involvement process for achieving the project's goals and objectives.

Tools and Techniques. This section of the public involvement plan identifies the tools and techniques to be used in carrying out the strategy for achieving the public involvement goals and objectives. Before selecting a tool or technique, review what has worked for prior projects. Poorly planned involvement activities are rarely successful.

Understanding the project and the level of public interest will help you select the appropriate tools and techniques to be used in the public involvement process. For example, the following tools can help meet a project's goals and objectives:

- Brochures
- Media Involvement
- Public advisory committee
- Charrettes
- Newsletters
- Project hot lines
- Informational meetings
- One-on-one contacts or meetings
- Public hearings
- Letters to property owners or interested parties
- Partnerships
- Surveys
- Logos
- Presentations
- Web pages
- Mailing list or stakeholder databases
- Press releases
- Workshops

For definitions and discussions of possible public involvement activities, refer to *Public Involvement Techniques for Transportation Decision-making*, September 1996, by the U.S. Department of Transportation, Federal Highway Administration. This publication is available from ITD's Office of Public Affairs, public involvement coordinator.

Resources. This section of the public involvement plan should identify resources (including time and money) necessary to implement the project's public involvement activities. It is important to know the cost of your tools and techniques in order to determine if available resources are adequate. If not, you will need to look for additional resources.

Project Schedule. This section of the public involvement plan should detail the schedule necessary for public involvement activities. Identifying project milestones helps determine when particular public involvement activities are appropriate. Key public involvement activities should be integrated into the project's critical path method (CPM). The Project Activity Flowcharts, Simple Type and Complex Type identify where "typical" public involvement activities occur in during the development process.

Management. This section of the public involvement plan identifies the chain of communication and roles and responsibilities between Headquarters Office of Public Affairs, the district as well as any public involvement consultants. This section is especially important if a consultant is implementing public involvement activities. Who will be doing what? Who is responsible for what?

Evaluation. This section of the public involvement plan should identify methods and measurements for evaluating whether the strategy, tools, and techniques are meeting

public involvement goals and objectives for the project. Evaluation should occur throughout the project.

375.03 Public Information Meetings. Public information meetings are often held as part of urban construction projects, prior to public hearings, and when the time between the final hearing and the beginning of construction is longer than three (3) years.

The meetings can occur before and during construction of a highway project. The District Design Engineer shall contact the Public Involvement Coordinator when bid specifications require a contractor to sponsor weekly public information meetings prior to and during a construction project. The weekly meetings generally occur for urban projects, or where there is considerable public interest in the project. The Public Involvement Coordinator along with Public Affairs will work with the contractor to publicize and facilitate the meetings.

A period of not less than 45 days is allowed for the return of comments on the draft EIS [*23 CFR 771.123(i)*].

If there is intense public interest in a project, if the level of impact is great, or if the project's public hearing was held longer than three (3) years prior to construction, public information meeting or meetings must be held. The number of appropriate public hearings/meetings for a project with an Environmental Assessment or Environmental Impact Statement needs to be determined based on issues, inputs, proposed mitigation, and public concern/input.

Conducting Public Information Meetings

The public information meeting shall be conducted in a format similar to a public hearing (see Figure 3-11, Public Hearing Requirements). Details about the format are available from the Public Affairs Office.

The activities of the public information meeting shall be documented with file memos that include:

- How long meetings or contacts lasted.
- Where the meetings were held.
- Who initiated the meetings.
- Who participated.
- How participants were notified.
- Content of discussions, questions, comments, and concerns.
- Conclusions (including response to comment/concerns).

375.04 Public Hearings. Public hearings provide the department with an opportunity to summarize studies, new developments, and public input on a proposed project. The hearings also give ITD opportunities to share project information with the public and, in turn, receive more input before final design.

Public Hearing Need

The District Engineer may waive public hearings when public awareness and support for the project is apparent and non-controversial. If there is a question as to whether a hearing is needed, the District Engineer shall request in writing that the Roadway Design Engineer determine whether a hearing will be held based on the following criteria and the results of the public information meetings.

Projects involving federal funds must have a hearing, or an opportunity for hearing, when there is:

- Acquisition of significant amounts of right-of-way.
- Substantial change to the layout or function of the connecting roadways or of the facilities being improved.
- Significant adverse impact on abutting property or when litigation or public controversy is anticipated.
- Significant social, economic, and/or environmental effect on the surrounding area.

Projects financed totally with state funds must have a public hearing when:

- The state highway serving or traversing any city is to be abandoned, relocated, or replaced.
- There is significant public interest or controversy surrounding the project.

FHWA may request a public hearing when a hearing may be in the public interest.

Figure 3-11

PUBLIC HEARING REQUIREMENTS

Glossary of Personnel Abbreviations/Terminology			
ASHD	Administrative Secretary Highway Division	PDE	Project Development Engineer
CE	Chief Engineer	PIC	Public Involvement Coordinator
DE	District Engineer	Q&A	Questions and Answers
District	District Engineer, Assistant District Engineer, and District personnel — Project Development Engineer, Project Engineer, Traffic Engineer, Right-of-Way Supervisor, Traffic Engineer, and Environmental Planner	RD	HQ Roadway Design Section
ENV	HQ Environmental Section	RDE	Roadway Design Engineer
HO	Hearing Officer	R/W	Right-of-Way Manager
MTI	Manager of Transportation Investment	SB	Secretary to the Idaho Transportation Board
PA	Public Affairs	Team	District personnel, PIC, ENV, and PA

DAY	ACTIVITY	RESPONSIBLE
	Submit environmental documentation to ENV for approval prior to beginning of hearing process.	District
70	Submit request to RD for hearing requirement determination. (If Question exists as to whether or not a hearing is needed)	District
70	Prepare appropriate number of project hearing plan sets and submit 1 set to RD for review	District
65	Make determination on hearing requirement and advise District and PIC.	RD
65	Notify PIC when plans are approved and return approved plans to District.	RD
65	Send copy of environmental document to PIC for file.	ENV
65	Call PIC to schedule hearing date: _____.	District
65	Inform SB and ASHD to advise appropriate Board member of hearing date.	PIC
60	Meet to outline organization of hearing. Define scope of hearing and make initial assignments for support materials, presentation, Q&A, and team leader.	Team

60	Make assignments for following areas: General administration, Local government concerns, Participation by other political entities, Illustrations and exhibits, Event site coordination, Video and still photographs, Property owner contacts and R/W issues, Publications (written project overview), Publicity, Event scripts for each presenter.	Team DE DE DE/PIC PDE/PIC PDE/PIC PA/PIC R/W PIC PIC/PA Each
60	If system action, advise HPM and PIC.	RD
60	Identify Work Authority: _____ Activity code: _____ Functional code: _____ Rule: _____	PIC
60	Identify hearing location: _____ (Must be handicapped accessible and approximately 2,800 sq. ft. Please note that the best hearing location is one with all facilities included – sign-in area, main hall, separate video and testimony areas, break room for staff.) Hearing hours: _____	District/PIC
60	Submit project information to PIC. Include Reason for project, Type, Alternatives, Length, Estimated cost, Construction year, Environmental impacts, Public concerns, R/W properties effected, Map of project location that is suitable for reproduction, Location where project information/plans can be obtained, and Contact person and phone number.	District
60	Decide who will be the primary contact person for each area: Design: _____, Right-of-Way: _____, Environment: _____, Traffic: _____, Alternates: _____ _____	DE
60	Layout all creative concepts for advance publicity; e.g., paid advertising, radio spots, news releases, etc. Identify papers and media to be contacted	PIC

60	Secure Hearing Officer	PIC
55	Contact property owners again to personally advise them of upcoming hearing date, time and location, plus impact on individual property.	District & R/W
55	Draft script to be used for video, project brochure, advertisements, news releases, etc. Send copy to Team. Comments due to PIC by Day 52	PIC
50	Make any necessary corrections to script and send copy to Team. Script should include shot list for video and still photographs.	PIC
45	Develop copy for all print/paid ads. Schedule dates for: Ads: _____, News releases: _____, Public notice: _____, and Interviews: _____	PIC
45	Make telephone inquiries of local officials to determine public interest in project as well as public concerns. Assess property owner concerns. Determine if notification needs to be translated into another language and notify PIC.	District
45	Scriptwriter, videographer, and District staff meets on-site to shoot video footage and still photos.	PIC/PA/ District
45	Finalize copy of paid ad and public notice. Review with Team.	PIC
40	Prepare Q&A for each area. Distribute copies internally.	Team
35	Draft letter for DE to send to involved property owners, local entities, utility companies, user groups, etc., advising them of the hearing. Review with DE, make any necessary changes, and transmit final copy to District. Comment due date should be two weeks after hearing. Request contact with District personnel if special needs are necessary.	PIC
30	Mail letter (and hearing brochure, if ready) to involved property owners, local entities, utility companies, Indian Tribes, user groups, special interest groups, state legislators, etc., advising them of the hearing. Send copy of the letter and mailing list to PIC.	District
21	First display ad appears in newspaper(s). Verify publication and file copy in hearing file	PIC
20	Print project brochure.	PIC
15	Report on any issues that might affect hearing to PIC.	DE & R/W
15	Train team members at hearing site with 1/2 day of full dress rehearsal at hearing site including videos, still photos, illustrations, and Q&A scripts. Include audience interaction with mock questions and answers.	PIC
15	Participate in local daily newspaper interview.	DE/PIC/PA
14	Second display ad appears in newspaper(s). Verify publication and file copy in hearing file.	PIC
10	Distribute approved news release to District/appropriate media.	PIC

10	OPTIONAL: Conduct off-site public presentation of the key elements of the proposed project in a high-visibility area such as a mall (gives opportunity to test presentations and reactions).	Team
10	Print reminder postcards with hearing information. Mail to same mailing list as DE's invitation letter (see Day 30).	PIC/District
7	Legal public notice appears in newspaper(s). Verify publication, send copy to HO, and file copy in hearing file.	PIC
7	Print sign-in forms and take to hearing.	PIC
7	Contact HO, give overview of project, brochure, and District contact.	PIC
5	Interview appears in newspaper(s). Verify and send copy to PA and PIC.	District
5	Do any final clean-up work and review changes from dress rehearsal.	Team
2	Final display ad appears in newspaper(s). Verify publication and file copy in hearing file.	PIC
1	Make reminder calls to media about public hearing.	PIC
1	Meet for final briefing	Team/HO/PIC
0	Conduct hearing.	Team/HO
-1	Critique hearing. HO leaves one tape recording with DE or PDE.	Team/HO
-5	Mail thank you letters, as necessary, and include written testimony forms to those who didn't attend hearing. Send copy to PIC.	PIC/DE
-7	Obtain attendance figures and number of males/females/ disabled and minorities from PIC for hearing certification.	HO
-14	Deadline for written comments to HO.	PIC
-15	Prepare transcript, certification, and other necessary information and give to PIC for copying and distribution.	HO
-15	Transmit copies of the transcript, sign-in sheets, certification of public notice, and mail-in testimony to the DE, SB (8 copies), RDE, ENV, FHWA, and local agencies/consulting engineer (if applicable). If local hearing, transmit original and one copy of transcript, mail-in testimony, and sign-in sheets to local entity with cover memo. Keep copy of everything in file.	PIC
-18	Transmit hearing transcript to DE and indicate required action by District.	RD
	Submit location and/or Location and/or Design Study Report to RD.	District

-18	**If Board decision is required** by Administrative Policy A-13-02, Public Involvement for Location and Design Determinations: Prepare Board agenda item with recommendation (also see system action instructions) and submit to RD. Complete and submit Board agenda item with record of decision. Send copy to District. If system action: Send Board decision to local entity by certified mail within 10 days of decision and file copy in hearing file. Once construction is complete, prepare official minutes for Board signature and file copy in hearing file.	District RD SB MIT
	If Board decision is not required: Submit appropriate project report to RD with request for location/design approval.	District
	Approve location/design of project and notify PIC and District of project approval.	CE/RD
	Prepare record of decision for CE signature.	RD
	Advise involved property owners and those who attended hearing of Board/CE decision through a personal letter from the DE using the mailing list from hearing invitation and sign-in sheets. File copy in hearing file.	PIC/District
	Prepare news release outlining decision and file copy in hearing file	PIC/PA
	Close out hearing file.	PIC

Hearing Information

Information needed at a hearing shall include, but not be limited to:

- The need and purpose for the proposed project.
- Project description.
- Project location sketch map.
- Alternative courses of action.
- Alternate project locations.
- Major design features.
- Engineering, social, economic, and environmental impacts.
- Environmental documents.
- Right-of-Way requirements.
- Relocation assistance programs.
- Relocation assistance payments, when appropriate.
- Proposed mitigation procedures.

- How the project is consistent with local planning goals and objectives.

Graphics and displays, such as aerial photographs, retouched photographs, and video information used in the hearing, shall be retained in the District until the project has been completed.

The Public Involvement Coordinator shall gather hearing information together into a written brochure. The brochure shall be mailed (whenever possible) to involved property owners and local government officials with an invitation letter from the District Engineer. In addition, the brochure shall be available to each person attending the hearing.

- Hearing plans shall be prepared for display at the hearing. The plans should show the following:
- The property owner's name, but not the acreage required or remaining. If title reports are not available, the owner's name, as indicated by the assessor's tax roll, is sufficient.
- The profile and ground line, except for urban projects where the profile and ground lines more or less coincide.
- The right-of-way lines established from the latest design and other pertinent features.

Right-of-Way lines and approaches shown on the Design Hearing Plans are subject to change as the project progresses to final design.

The project description and the project location sketch map are used as the basis for the informational brochure. The project description is to be written by the District and shall cover the following information plus any other appropriate features of the project:

- Description of where the project begins and ends, including the length of the construction and references to landmarks known to people familiar with the area.
- Roadway characteristics, including traffic lane widths, shoulders, medians, bike lanes or paths, barriers, truck lanes, turn bays, traffic signals/signs, and any other details in which the public may be interested.
- Right-of-Way minimum and maximum widths, as well as access control and the general effects.
- Description of basic construction, such as what type of fills or excavations will occur; channel changes, if any; environmental concerns, including re-vegetation or environmental restoration; and wetlands and flood plain involvement.
- Structure requirements, including interchanges, grade separations, bridges, major culverts, etc.
- Proposed construction phases, such as what type of work will occur, when and how the public will be affected, and information about possible detours.
- Project location sketch map.

Public Hearing Scheduling

Information provided by the Districts to the Public Involvement Coordinator in order to schedule a hearing shall include:

- Project description.
- Project sketch map.
- Tentative hearing date and location.
- Preferred hearing hours.
- A mailing list of adjacent property owners involved with right-of-way acquisition and other interested individuals.
- Locations where project information can be obtained and the contact person.
- Conceptual displays and graphics to be developed for the hearing.

In all cases, the major design features, alternatives, and required environmental documents (Environmental Manual), shall be reviewed by the headquarters Design Engineer and Environmental Manager prior to scheduling a public hearing to determine that the project's features are generally acceptable for hearing purposes. The public hearing date will be approved by the Public Involvement Coordinator, after consultation with the Hearing Officer.

Notice of Public Hearing

The Public Involvement Coordinator will administer the public hearing notification process and coordinate hearing activities with the Districts. The Public Involvement Coordinator, in consultation with the Environmental Manager, shall determine the length of the notification period as required by the project's environmental classification.

According to federal requirements, whenever a public hearing is held and a draft environmental impact statement (EIS) or an environmental assessment (EA) has been prepared, the EIS/EA shall be available at the public hearing and for a minimum of 15 days in advance of the public hearing. The availability of the draft EIS shall be mentioned and public comments requested in any public hearing notice and at the public hearing. If the public hearing on an action proposed for federal funding is canceled, a notice similar to a public hearing notice shall be placed in the newspaper advising where the draft EIS is available for review, how copies may be obtained, and when and where comments should be sent.

Newspaper advertisements, known as “display ads,” shall be published to notify the public of an opportunity for a public hearing. The display ads shall be published twice with at least seven (7) days between publication dates. The deadline for submitting a written request for a public hearing may not be less than fifteen (15) days after the date of publication of the first notice of opportunity for public hearing. The District shall then establish the hearing dates in coordination with the Public Involvement Coordinator and notice will be sent to those requesting a hearing and the public through the newspaper. If no hearing is requested, a notice of hearing cancellation will be published.

When there is doubt about the need for a hearing and there is reason to believe that the project may be controversial, a notice of opportunity for a hearing may be used to satisfy the hearing requirement. Review of any project-related information before requesting a hearing cannot be required as a part of this notice. The only requirement is that the hearing request must be made in writing.

On occasion, the department will receive only a small number of written requests for a hearing. In this situation, it is permissible to advertise and hold a meeting at some convenient location to explain the project and answer any questions.

Each legal notice of a public hearing shall be published at least once. Specify the date, time, and place of the hearing; specify that pertinent information concerning the project is available for public inspection and copying, and explain where the information is available and include the name and phone number of a contact person. Procedures for submitting written comments following the hearing, notice of the availability of an environmental document (when applicable), and invitation for public comment on the environmental document shall also be included in the legal notice.

If the project may impact non-English speaking individuals, translated legal advertisements and notices should be prepared. Advertisements and notices shall be published in the newspaper serving the counties or cities where the proposed project is located. In addition, the advertisements and notices shall be published in other newspapers having a substantial circulation in the area. If no newspapers of general circulation are in the project area, then notice will be posted in three (3) of the most public places near the proposed project.

In addition to publishing display ads for the opportunity for public hearings and the legal notice for public hearings, the District Engineer shall send a letter of invitation to the hearing to:

- Property owners that may be affected by the project.
- Federal, state, utility companies, and local agency officials.
- Public advisory groups and agencies requesting notice of hearings.
- Other groups, including minority groups or agencies, that by nature of their function, interest, or responsibility may be interested in or effected by the proposed project.

Waiver of Public Hearing

Whether a question about the amount of right-of-way required is significant or not, a hearing waiver may be solicited from effected property owners. The hearing waiver must be in the form shown in Figure 3-12, Waiver of Public Hearing.

A team of ITD personnel consisting of at least the project designer and a right-of-way agent, with additional District personnel as deemed necessary, should make all property owner contacts.

Figure 3-12

WAIVER OF PUBLIC HEARING

Project No.: _____

Parcel No.: _____

I, the undersigned, have been fully informed concerning Project _____, including the project's effect on my property.

I am aware of the amount of right-of-way to be acquired, the relationship to the remainder of my property, and have been informed that I will receive fair compensation for Right-of-Way acquisition on the project.

I am aware that I have the right to request a public hearing and I hereby waive said right to a public hearing.

_____ _____

Property Owner **Date**

_____

Address

Conducting Public Hearings

Public hearings will be held at a place located as near to the project as possible and for the number of hours convenient for those persons impacted by the proposed project. The format of the hearing will be similar to an open house in which the public is invited to drop by at any time during the specified hours. A 5 to 7 minute video will be shown to give the public an overview of the proposed project and the hearing process.

Written statements and other information provided by the public in the place of, or in addition to, oral testimony can be accepted at the public hearing. The procedures for such submissions shall be clearly described in the hearing brochure.

Following the public hearing, a transcript of public testimony and a certification that a required hearing or hearing opportunity was offered shall be submitted to FHWA. In addition, copies of all written statements from the public that were submitted at the hearing or during the announced period following the hearing shall accompany the transcript and certification.

Additional Hearings

Even though a public hearing has been held (or opportunity offered), sometimes, additional hearings (or opportunities for hearings) may be necessary. Based on the reevaluation of project information and documents as required by CFR 771.129, the FHWA and ITD will determine whether changes in the project or new information warrant additional public involvement. The Environmental section shall hold additional hearings at the discretion of the department in consultation with FHWA when there is any of the following:

- Substantial change in the proposal.
- Substantial development in the area affected by the proposal.
- A lapse of time of at least three (3) years since the last hearing with no major action taken on advancing the project or little or no public involvement activity for the project.
- Identification of potentially significant social, economic, or environmental effects not previously considered at an earlier hearing. (Passage of new environmental legislation after a hearing does not necessarily require a new hearing.)

380.00 – LOCATION AND/OR DESIGN STUDY REPORT

The District Engineer shall prepare a Location and/or Design Study Report. The Location and/or Design Study Report is a formal document that records considerations and conclusions that were reached by the District in the development of a project through environmental documentation, preliminary design, and the public hearing phase. The Location and/or Design Study Report is used to obtain concurrence in preliminary project design. The Location and/or Design Study Report shall be prepared on all federal-aid projects and is required to obtain Design approval.

The Location and/or Design Study Report documents:

- ITD's consideration of transportation needs, socioeconomic, environmental impacts of the project and Context Sensitive Solutions by summarizing significant design considerations and decisions. Included in the report are design criteria changes from the concept approval and preliminary design approval. Consider CSS obligations for all changes in scope.
- Recommendations and proposed changes that were made as a result of the public hearing testimony. This information must also be included in an environmental re-evaluation.

380.01 Location and/or Design Study Report Contents. Essential items that must be included in the Location and/or Design Study Report, and any other information that clarifies the design intentions and improves the understanding of the highway improvement project should be included.

Essential items for the Location and/or Design Study Report are:

- A narrative description of the project.
- Vicinity sketch.
- Any changes in project concept (including design exceptions) since approval of the project concept report ITD 757, Design Standards, and ITD 758, Alternate Solutions and Costs).
- A summary of public hearing testimony, proposed resolutions of identified concerns, and any changes made in design that were based on the hearing.
- Waivers of public hearing or documentation of the hearing being waived by the Roadway Design Engineer.
- Location and/or Design Study Report Checklist (Figure 3-14).
- Significant items that effect the project (include environmental-related commitments).

Optional items that can be included at the discretion of the Districts are:

- Cover Sheet (Figure 3-13)
- Copy of the approved ITD 757 and ITD 758,
- Typical sections

Four examples of Location and/or Design Study Reports are included as Figures 3-15 through 3-18. The examples are for the following types of projects:

- Non-controversial pavement rehabilitation project with no right-of-way purchase and no environmental impacts.

Small structure replacement and approaches project. Temporary easements for detour and approach work.

Highway relocation project with a public hearing held and environmental assessment prepared. No major controversy or testimony presented.

Major relocation project with high environmental impacts and several controversial issues addressed in the hearing testimony.

Follow the example that is nearest to the type of project being designed.

380.02 Location and/or Design Study Report Approval. Project determination and approvals shall be in accordance with Administrative Policy A-13-02. The District Engineer may approve location and design for projects that do not require a hearing, no hearing is requested after an opportunity for hearing is given or when the hearing is waived. The Location and/or Design Study Report shall not be approved or submitted for approval until after the District has:

- Completed environmental documentation;
- Analyzed the public hearing transcript and determinations have been made on the problems and concerns addressed at the hearing or until the hearing has been waived; and
- Project determinations and approvals are settled, as outlined in Administrative Policy A-13-02, Public Involvement for Location and Design Determinations.

For projects that FHWA has full oversight on, the Location and/or Design Study Report will be submitted to FHWA for concurrence of our approval. Exempt projects shall follow the FHWA Oversight Matrix (Figure 1-1)

Final design of a project can not commence until the Location and/or Design Study Report is approved.

Figure 3-13

LOCATION AND/OR DESIGN STUDY REPORT

PROJECT NO.

KEY NO.

PROJECT DESCRIPTION

LOCATION

WORK AUTHORITY

COUNTY

Prepared by: Designer Name Date: 00/00/01

Approved by: RDE Name Date: 00/00/01

Figure 3-14

LOCATION AND/OR DESIGN STUDY REPORT CHECKLIST

Phase I Material Report _____
Date approved

Concept Report ITD 757 and ITD 758, _____
Date approved

Access Control ITD 606 _____
Date approved

Field Inventory ITD 759 _____
Date submitted

Preliminary Design Review _____
Date held

Environmental Document _____ _____
Type Date approved

Public Hearing _____ or _____
Date held Date waived

Transcription of Public Hearing Testimony _____
Date submitted

Figure 3-15

LOCATION AND/OR DESIGN STUDY REPORT EXAMPLE 1

IR-15-1(102)54
Inkom to Portneuf
Bannock County
Key No. 3720
WA #I875190

This project consists of pavement rehabilitation of I-15, south of Pocatello, in the travel lane and full width over structures with a full width seal throughout. The project length is 1.5 miles from MP 54.70 to MP 53.20.

The roadway width was originally constructed to current standards of 40 feet in 1969 and 1970 with no widening for guardrail. The last construction was in 1982 with a seal to the travel lane and 1983 with a seal to the passing lane.

The project was approved for rehabilitation and sealing by the Idaho Transportation Board on January 21, 1996, for FY98.

The current ADT is 10,440 with a projected ADT of 16,080 and design hourly volume of 1,790 for the year 2011. The project will be designed to AASHTO Standards for Interstate Systems with no design exceptions. Horizontal and vertical alignment will remain the same. Fill slopes where guardrail removal will occur will be flattened to 4:1 minimum, 6:1 maximum. Full access control was approved under original construction.

Drainage in areas of guardrail removal will be extended appropriately to accommodate the flatter slopes. Detours are not practical for this project but, rather, traffic will be controlled through proper Channelization into one lane.

A revised ITD 783, Concept Approval, was approved by headquarters on September 21, 1997.

Pavement rehabilitation consists of cold milling and inlaying plant mix pavement in the travel lanes to remove ruts and full width over structures to remove excess dead load and repair deck joints. A full width seal coat will be applied to interstate roadways and ramps, with a scrub and seal in the Inkom Port of Entry and an interchange crossroad. Bridge rail updating will be accomplished by the beam retrofit and some guardrail will be removed or updated on crossroads or selected areas on the interstate.

All proposed construction will be on existing right-of-way or in state-owned sources. A categorical exclusion for environmental concerns was approved September 2, 1996.

Figure 3-16

LOCATION AND/OR DESIGN STUDY REPORT EXAMPLE 2

BRF-5152(200)
Evans Creek Bridge Replacement SH-3
Kootenai County
Key No. 1754
WA #P861140

This section of roadway and bridge was constructed in 1936 under Project WPSS 179-C. Due to the rolling terrain, the alignment along this portion of roadway consists of a 10o curve left, with a substandard vertical curve at the Evans Creek Bridge location. The bridge is a three-span wooden bridge sitting on wood piles. The bridge width is 26 feet out to out with substandard metal guardrail and has a 7.9 sufficiency rating.

Due to the location and the adjacent wetlands, it is not economically feasible to upgrade the entire roadway to AASHTO standards at this time. The District is proposing to replace the existing bridge at the present location with clear-span, pre-stressed box girder/pre-stressed girder bridge having a curb-to-curb width of 32 feet, and upgrading the existing roadway approaches to the bridge. Approximately 800 feet of roadway will be upgraded by widening from 26 feet to 29 feet using 4:1 foreslopes, 1 ½:1 fill slopes, and 7’ guardrail posts. The slopes mentioned above were chosen to minimize the impact to the wetland and are part of the wetland mitigation and to stay within the existing right-of-way. The vertical curve considered will be improved to meet the required standards.

The bridge replacement will require building a detour south of the existing structure. When the detour is no longer needed, the fill material will be removed and used to construct roadway embankment on the future Rose Lake project.

No right-of-way purchase will be required on this project. Temporary easements will be required from two property owners for the purpose of improving approaches and constructing the temporary detour.

The following changes need to be made on the ITD 783, Concept Approval, submitted April 24, 1990. The design speed of 55 mph should be changed to 45 mph. The 6:1 foreslopes on the typical sections should be changed to 4:1, which has been approved.

An exception for the 32 foot bridge width was approved November 9, 1990.

The Archeological Clearance on this project was approved July 16, 1992.

The Idaho Fish and Game have no objection to the replacement of Evans Creek Bridge, but were concerned regarding the detour. No in-stream work is to be done between April 1 and July 1 to protect cutthroat trout spawners, eggs, and fry.

A Preliminary Design Review was held on this project November 4, 1992.

A categorical exclusion was approved on December 30, 1992.

A waiver of public hearing was requested and approved on January 19, 1993.

Figure 3-17
Sheet 1 of 5

LOCATION AND/OR DESIGN STUDY REPORT EXAMPLE 3

Project No. F-4113(77)
Ferdinand-Lawyer's Canyon

The section of roadway proposed for improvements is a portion of U.S. Highway 95 from a point approximately .5 mile southeast of Ferdinand and continuing northerly to a proposed structure over Lawyer's Canyon Creek at the Idaho-Lewis County line. Reconstruction of this section of highway will be part of the improvement program planned for US-95 between Ferdinand and Craigmont, as explained in the Final Environmental Statement dated July 1978 (FHWA-IDA-EIS-77-02-F).

EXISTING AREA CONDITIONS

US-95 is the major link between northern and southern Idaho. The highway begins at the southwestern Oregon/Idaho border approximately 30 miles south of Caldwell, Idaho. From this point, the route extends northward approximately 530 miles to the Idaho/Canadian border.

The project area lies in the northern part of Idaho County. The county is rural in nature, being largely public-owned U.S. Forest Service land that supports an extensive timber industry. Large farms and ranches dominate the privately owned land in this county.

The project will begin approximately 0.5 miles southeast of Ferdinand and end at the proposed structure over Lawyer's Canyon Creek. Ferdinand has a few stores and grain elevators and provides basic services for the surrounding rural area. The town had a population of 144 at the 1980 census.

Ferdinand does not have a hospital (Cottonwood, Grangeville, and Lewiston have the nearest medical facilities). During recent years, basic services in the form of schools, full-service grocery outlets, and retail gasoline stations have closed. These services are available in Craigmont, 8.6 miles to the north, and Cottonwood, approximately 8.0 miles to the south. The majority of the school children are transported to Cottonwood; therefore, US-95 serves as a school bus route for the local schools. Improved sight distances and shoulder widths are important for the safe transportation of school children along the route.

The majority of the people living within the project corridor have been residents of the area for many years. The communities have changed very little in the past and no major changes due to roadway improvements are expected in the future.

EXISTING ROAD DESCRIPTION

The existing highway is classified as a principal arterial under the 1990 Functional Classification System. Characteristics of the 4 miles of existing highway proposed for improvement are a 22 ft. roadway with no shoulders, a basic right-of-way width of 80 feet, and an alignment that is well below current standards. Present access control is governed by the Standard Approach Policy.

Current maintenance operations on this portion of US-95 include spot patching and seal coating as needed. Should this portion not be reconstructed, maintenance requirements foreseen will include major surface overlays and extensive shoulder rehabilitation for the entire length.

REASON FOR IMPROVEMENT

The project would be the final stage of an overall project to improve approximately 10 miles of US-95 from Ferdinand to Craigmont.

The project is needed to accommodate existing and future traffic volumes and to correct the following deficiencies:

- Slow operating speed due to narrow roadway pavement width, inadequate shoulders, and restrictive passing sight distance.
- Limited safety because of unrestricted access control and dangerous conditions adjacent to the roadway.
- Substandard surfacing that creates hazardous driving in wet or freezing weather and is subject to considerable breakup during freezing and thawing conditions.

The improvement would minimize or eliminate the deficiencies cited and increase the efficiency and safety of the highway for the increasing traffic volumes projected for this section of highway.

ALTERNATIVES

In May 1977, the project was addressed in an environmental impact statement and a location hearing was held in July 1977. As a result of this hearing, the Idaho Transportation Board selected the Existing Improved Alternate. This alignment has changed slightly from the approved one due to Lawyer’s Creek Bridge being shifted upstream approximately 500 feet. This was done so the bridge could be constructed on a tangent rather than a curve.

In October 1988, the Idaho Transportation Board directed that the East Alternate from Ferdinand to Lawyer’s Canyon be reconsidered, as it is a shorter route and would not involve railroad crossings for US-95.

A No Major Improvement Alternate would not meet current and future transportation needs. Other construction alternatives are not compatible with the selected route from Lawyer's Canyon to Craigmont and only the Existing Improved Alternate and East Alternate are being considered.

PROJECT DESCRIPTION

Existing Improved Alternate

The Existing Improved Alternate begins 0.5 miles southeast of Ferdinand; crosses the Camas Prairie Railroad with an at-grade, signalized crossing; and then bypasses Ferdinand to the south. The alignment then swings north following the existing US-95 west of Ferdinand. The route then follows the east breaks of Moody Gulch, crosses beneath the Camas Prairie Railroad where an underpass would be built, and then

continues north to the bridge over Lawyer's Creek. The overall project length is approximately 4 miles.

This would provide a roadway surface width of 34 feet (consisting of two 12 foot lanes – one in each direction – and two 5 foot shoulders). The subgrade would be built to accommodate a future 40 foot paved surface width.

The horizontal and vertical alignments would result in a design speed of 60 mph. The maximum radius of curve being 1315' with a maximum grade of 4.595 percent. Two truck climbing lanes are included, the first being constructed south of Ferdinand to aid the northbound traffic and the other being south of the new Lawyer's Canyon Creek Bridge to aid the southbound traffic.

A basic right-of-way width of 200 feet to 425 feet would be needed for the project. Access control for the proposed alignment allows public and private at-grade crossings that would require temporary easements during construction. Access to Ferdinand would be provided by constructing two connections to the existing highway (one from the north and the other from the south of town).

Upon completion of the project, approximately 2.5 miles of existing US-95 would be removed from the state system and relinquished to local jurisdictions for maintenance

East Alternate

The East Alternate route would begin approximately .5 miles southeast of Ferdinand. The route runs northerly, bypasses Ferdinand on the east, and then parallels the Camas Prairie Railroad. The alignment continues northwesterly to the proposed structure over Lawyer's Canyon Creek. The alignment is approximately 3.5 miles in length and would not involve any railroad crossings.

This route would provide a roadway surface width of 34 feet (consisting of two-12 foot lanes and two-5 foot shoulders). The subgrade would be constructed to handle a future 40 foot roadway.

Curvature and sight distance on the finished project would have a design speed of 60 mph. The maximum radius of curve on the alignment would be 1650 feet with a maximum grade of 3.268 percent.

A truck-climbing lane would be built south of the Lawyer's Canyon Creek Bridge and extend approximately 1.3 miles to aid the southbound traffic.

A basic right-of-way width of 190 feet to 350 feet would be required, with larger widths in larger embankment areas. Access control for the proposed alignment allows for public and private approaches that would require temporary easements during construction. On this improvement, one connection to Ferdinand would be provided by use of an existing road on the south end of town.

Upon completion of the project, approximately 0.5 miles of the existing US-95 would be relinquished to local jurisdictions for maintenance.

SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

An Environmental Assessment was prepared and approved on August 24, 1989, which addresses the impacts of the project. A copy of this document is attached.

SYNOPSIS OF DESIGN HEARING TESTIMONY

A public location/design and systems action hearing was held in Ferdinand, Idaho on November 8, 1989. There were 67 interested citizens in attendance including Ferdinand Mayor Eugene Kuther, Craigmont Mayor David Boknecht, and Ferdinand Highway District Commissioners Dennis Seubert, Jerry Schwartz, and Donald Bieker. The Idaho Transportation Board was represented by Vice Chairman Marion Davidson and Executive Assistant Mary Detmar.

Both written and oral testimony was given by 72 citizens. By organization of this testimony, 21 favored the Existing Improved Alternate, 41 favored the East Alternate, and 10 offered no preference. Five individuals supported a state-maintained business loop for Ferdinand. Five of those persons favoring the Existing Improved Alternate indicated the loss of prime farmland as a major concern.

Twelve testimonies requested an underpass be furnished on the local farm-to-market roads to provide access to Ferdinand, regardless of the selected alternate. Two petitions were also received supporting the underpass for the east or west city access. The petition for the east underpass had 89 signatures and the petition of the west underpass had 121 signatures.

Other testimonies referred to individual problems relating to specific ownerships such as drainage, access, severance, etc.

CONCLUSION

As requested by the public testimony, the feasibility of underpasses for the public road connections to Ferdinand was investigated for the two alternates.

Based on the AASHTO publication entitled “A Policy on Geometric Design of Highways and Streets, 1984,” an underpass is not warranted in this case. The traffic volumes on these local roads are low and no accidents have been recorded at the present at-grade intersections. The proposed projects will provide adequate sight distance and roadway alignment to allow for crossing by the anticipated users.

An underpass structure of the size needed to accommodate farm trucks and equipment would increase the estimated cost of the Existing Improved Alternate by $173,000 and the East Alternate by $278,000. If the East Alternate was selected, the underpass would also require approximately two acres of prime farmland for additional right-of-way. As no warrant for these grade separations is apparent and as safe, adequate at-grade intersections would be provided. It is concluded that expenditure of federal funds for the underpasses probably could not be made. The Ferdinand Highway District has offered to participate in the cost of the structure. If this offer was accepted, the structure could be included in the project.

The removal of the existing US-95 from the State Highway System was addressed at the July 1977 location hearing and a determination was issued by the Idaho Transportation Board on October 16, 1977. This determination was reaffirmed on August 15, 1988, by a letter from Board Chairman John M. Ohman to Ferdinand Mayor Eugene Kuther. Repairs to the existing facility will be negotiated with the city of Ferdinand and will be accomplished prior to the relinquishment of the roadway to the city.

Problems relating to individual concerns will be resolved with minor design corrections or by compensation during the appraisal process.

Based upon public testimony, engineering, and cost considerations, the District recommends that the East Alternate be selected for development and construction.

Figure 3-18
Sheet 1 of 4

LOCATION AND/OR DESIGN STUDY REPORT EXAMPLE 4

Project No. F-3271(33)
Eagle Alternate Route

The section of roadway proposed for improvement and new alignment is a portion of SH-44 and SH-55 in and near Eagle, Idaho. The project is located between MP 16.000 and MP 19.45 of SH-44 and MP 17.79 and 18.000 of SH-55.

EXISTING AREA CONDITIONS

SH-44 goes through downtown Eagle on an east-west route. SH-55 enters from the south and currently joins SH-44 in downtown Eagle. The project is located in Ada County and goes from west of Ballantine Road eastward to the new SH-55 North intersection.

EXISTING ROAD CONDITIONS

The existing SH-44 is classified as a minor arterial from the west to junction with SH-55 and a principal arterial from that junction to the SH-55 North junction. The existing SH-55 is classified as a principal arterial. All are under the 1995 Functional Classification System. The present SH-44 roadway consists of a two-lane facility with a 40 feet width in the rural sections and a 29feet width in downtown Eagle. The present SH-55 roadway consists of a two-lane facility with a 22 feet width. Present access control is governed by the Standard Approach Policy. Current maintenance operations on these portions of state highways include spot patching and sanding for winter maintenance.

REASON FOR IMPROVEMENT

The existing roadways are inadequate to handle current traffic volumes and substandard for projected traffic. The current junction has very poor geometrics and sight triangles and is extremely hard for trucks to maneuver even with lane encroachments. The existing SH-44 is a good roadway except through downtown Eagle where additional room is required. The existing SH-55 is deteriorating and is in need of repair. It is also substandard in width.

PROPOSED IMPROVEMENTS

A public information meeting was held February 1, 1989. The public was presented with seven alternatives. Approximately 120 people attended and the District received 35 report forms back as of April 10, 1989. The forms indicated that 27 favored the Long West Option (see Table 1 for “con” comments and the response), 5 favored the Short West Option, 2 favored the Couplet System Option, and 1 favored the Do Nothing Option.

Figure 3-18
Sheet 2 of 4

Table 1
LONG WEST OPTION "CON" COMMENTS

Comment	No. of Comments	Response
This option would be a waste (or irresponsible use) of tax dollars.	7	The additional cost of this option is minimal considering its benefits in improved traffic mobility, gas saving, and travel time reduction. All four alternatives for the project show a positive benefit/cost ratio. For the two that include the Long West Option, the values were 10.7 (Alt. 1) and 13.7 (Alt. 3). The Short West Option costs $200,000 less than the Long West Option–approximately 3% of total expenditures–but does not offer the transportation and economic growth advantages associated with the Long Option. A west option is needed to avoid extreme traffic congestion in Eagle in the near future.
Consider the high cost of acquiring river front land on the Long West Option. It is not zoned farmland any more and the owners will fight for subdivision prices. Fair value must reflect the residential development potential.	2	The price paid for riverfront land will be based on current use and comparable land values at the time of appraisal. If there has been no capital improvement, there can be no compensation for it.
On the Long West Option, the cost of buying right-of-way and replacing the Chevron pipeline should be taken into account. These costs may be quite high.	1	The cost of buying right-of-way will be as described above. The Chevron pipeline was taken into account in the design of the roadway location.
The Long West Option serves populated areas (at the expense of rural landowners). It puts unwanted congestion in the rural area.	1	This is a recognized impact of the project. However, without the project, traffic congestion will increase to intolerable levels in the near future that would also affect rural landowners.

Four alternatives were presented to the public at a combined design location hearing held March 13, 1991, at Centennial High School auditorium. These alternatives were two directional, five-lane sections requiring 140 feet of right-of-way, 70 feet on either side of the centerline on new alignment, and an existing right-of-way of 119 feet with 60 feet on both sides of the centerline.

Figure 3-18
Sheet 3 of 4

Option 1: Long West North

This option would leave existing SH-44 near Ballantine Road on the west at MP 16.223, proceed southeasterly, and cross existing SH-55 approximately 1800 feet south of the existing SH-44 and SH-55 intersection in Eagle. It would then continue in an easterly direction to an intersection with existing SH-44 approximately 1000 feet east of Edgewood Lane at MP 18.952.

This would involve removal of 2.8 miles of SH-44 and 0.28 miles of SH-55 from the State Highway System. It would also involve an addition of 2.7 miles to SH-44 along the new alignment. The net result is a decrease of .38 miles.

Option 2: Short West North

This option would leave existing SH-44 just east of the Dry Creek Bridge at MP 16.852, proceed southeasterly, and cross existing SH-55 approximately 0.5 mile south of the existing SH-44 and SH-55 intersection in Eagle. It would then continue in an easterly direction to an intersection with existing SH-44 approximately 0.19 miles east of Edgewood Lane at MP 18.952. This would involve removal of 2.1 miles of SH-44 and 0.3 miles of SH-55 from the State Highway System. It would also involve an addition of 2.15 miles to SH-44 along the new alignment. The net result is a decrease of 0.34 miles.

Option 3: Long West South

This option would leave existing SH-44 near Ballantine Road on the west at MP 16.223, proceed southeasterly, and cross existing SH-55 approximately 0.34 miles south of the existing SH-44 and SH-55 intersection in Eagle. It would then continue easterly and south of the trailer park at MP 19.0 to an intersection with existing SH-44 at MP 19.401. This would involve removal of 3.2 miles of SH-44 and 0.3 miles of SH-55 from the State Highway System. It would also involve an addition of 3 miles to SH-44 along the new alignment. The net result is a decrease of 0.34 miles.

Option 4: Short West South

This option would leave existing SH-44 just east of the Dry Creek Bridge at MP 16.852, proceed southeasterly, and cross existing SH-55 approximately 0.34 miles south of the existing SH-44 and SH-55 intersection in Eagle. It would then continue easterly and south of the trailer park at MP 19.0 to an intersection with existing SH-44 at MP 19.401. This would involve removal of 2.6 miles of SH-44 and 0.34 miles of SH-55 from the State Highway System. It would also involve an addition of 2.5 miles to SH-44 along the new alignment. The net result is a decrease of 0.5 miles.

Figure 3-18
Sheet 4 of 4

CONCLUSIONS

With any of these options, there would be connector roads constructed to provide adequate access to Eagle and meet all current geometric standards.

All horizontal curve super-elevation rates would meet current standards according to ITD and AASHTO requirements.

Signing would be new except where existing signs are deemed current with ITD policy and MUTCD requirements.

An Environmental Assessment was published February 11, 1991.

In addition to the new route selected in the System Action decision, it was agreed that the existing SH-44 between Alternate Route connections will receive a new pavement overlay before being turned over to the Ada County Highway District.

The District submitted all testimony from the combined design location hearing to the Idaho Transportation Board. As a result of the combined hearing testimony, a few changes were incorporated into the District's recommendations to the Idaho Transportation Board.

The District agreed that with no access allowed from the new route, a full 14 foot median was not required and that a 4.0 feet median will meet all AASHTO and ITD minimums. This recommendation reduces pavement width from 80 feet to 70 feet and will help contain costs. One other change was recommended to the Idaho Transportation Board: The removal of the two-way turn lane on Eagle Road between the new intersection and State Street. A near unanimous response to remove it was included in the District's recommendations. The District formally recommended Option 3 to the Idaho Transportation Board.

The Idaho Transportation Board initially selected Option 4, but left a loophole for the city of Eagle to alter the decision with a written request within 30 days. The city of Eagle did make a formal request that the Idaho Transportation Board change their decision. On July 9, 1991, the Board issued the revised decision adopting Alternate 3 (South Option and Long West Option) for the Eagle Alternative.

The Idaho Transportation Board, in its decision of July 9, 1991, further ordered a committee to study wetland, noise mitigation, river access, bike paths, wildlife protection, and natural preservation. This committee held an information meeting in Eagle on October 3, 1991. The results of that meeting and the committee recommendation were presented to the Idaho Transportation Board at their November 1991 meeting. The Board approved the committee's recommendation on November 15, 1991