700.01 General Requirements

700.01(1) Federal and State Contract Participation Goals

Disadvantaged Business Enterprise (DBE) goals for federally funded projects are condition of award goals. In order for the bid to be considered responsive, the low bidder must either meet the established goal or demonstrate Good Faith Efforts in meeting the goal. The HQ Office of Equity and Civil Rights (OECR) establishes these goals and monitors DBE participation. State funded projects have participation goals including Disadvantaged Minority, Small, Veterans, and Women Owned Business Enterprises.

Prior to Advertisement, contact the OECR to establish goals, obtain Special Training hours, and determine which WSDOT General Special Provision (GSP) is needed for your project.
Contact email: **WSDOT OEO Goal Requests**

For more information, see the *Construction Manual*, *Advertisement and Award Manual* and *Standard Specifications*.

700.01(2) Alternate/Cumulative Bids

700.01(2)(a) Alternate Bids

It is, at times, desirable to solicit bids using alternates for specific bid items for work to be performed under the contract. The contract Estimate, Proposal, and Summary of Quantities will be divided into sections. One section will contain the base information, and there will be a section for each of the alternates. This requires the contractor to bid the base portion of the project and to bid the alternates as required by the Special Provisions. By comparing the base bid plus the alternate bids, WSDOT is able to determine the most economical combination.

One of the conditions of setting up a project in this manner is that WSDOT has to treat each of the alternates as equal and make the decision regarding which is the best bid based on the lowest cost Alternate Plus Base Bid.

This is different than allowing the contractor the latitude to choose between different material options available for a contract item.

For additional information concerning alternates, refer to the *EBASE Users Guide*.

700.01(2)(b) Cumulative Alternative Bids

Use in contracts when the award process is modified to include Cumulative Alternates. The

region shall determine and notify the Ad and Award Office of the Funds Available. The bid items shall be segregated into a Base Bid and Alternates, as appropriate. Fill-ins consist of a brief description of the portion of the project or of the work that is included in the noted Alternates. The specification language may be adjusted to suit the number of Alternates.

For further information on how this is to be used in a project, see Division 1-02.6, General Special Provisions.

700.01(3) Addenda

Addenda are revisions to the plans and contract provisions that are made **during** the advertising period. Addenda are to be issued only when the revision will affect the contractor's ability to provide a responsive bid. Consult with the Region Plans Office to coordinate preparation and notification of addenda to plan holders.

Items to be considered for preparing addenda, which would affect the scope of work and the contractor's ability to accurately bid the project, might include:

- Material specification changes.
- New bid item(s).
- A substantial quantity revision (generally, a 25% or greater increase or decrease) for an item in the bid documents.
- A revision to a legal requirement in the contract.
- A new supplement or a revision to the Special Provisions.
- Contract errors and omissions that create conflicts.

Small adjustments to quantities, spelling, and punctuation, and design changes that do not affect quantity and relocation of items of work within the project will not normally require an addendum because they will not affect the way the contractor bids the project. These items are not to be ignored, but the information, in the form of revised plan sheets, need only be passed along to the office of the construction project engineer, so they can be incorporated into the project and given to the contractor that is awarded the project.

For example:

- **Addenda Not Required:** The advertised project has 23 catch basins to be installed, and it is discovered that an additional catch basin, not shown on the plans, will be required. This would not warrant an addendum if this were the **only change** being made. The small change in quantity will not impact the contractor's bid. This can be handled under construction as any other increase in quantity.
- **Addenda Required:** The addition of the one catch basin causes the 18-inch-diameter pipe item to increase from 985 feet to 1,250 feet. This increase in pipe length is greater than 125% of the original, which could cause this item to be renegotiated under the contract, so the addendum would be justified. Since the addendum is required for the pipe, the additional catch basin would also be included in the addendum.

For instructions and procedures on preparing addenda, see the Appendices.

700.01(4) Reference Information

Reference Information is information available to the contractor during the bidding period that is not part of contractual documents. Reference information needs to be provided electronically on WSDOT's ftp directory linked to the Contract's Advertisement webpage.

Make the following files available for bidders as reference information covered under WSDOT Standard Specification 1-04.3 and General Special Provisions. If any item was not created for the purpose of developing the project, then that item does not need to be provided.

These electronic files must be delivered to the Region Plans Office two weeks prior to Advertisement. If a project has an addendum that impacts the reference files, the new files must be provided at the time the addendum is submitted. The Region Plans Office will upload the files to the project folder in the Printing Services directory in a folder titled "Reference Information".

The files may only be submitted at Advertisement and with an addendum.

1. Original Ground DTM (land XML format)
2. Final Ground DTM (land XML format)
3. MicroStation Files (use EEDS Manual file naming convention)
    a. Base map (DGN format)
    b. Plan Sheet Files (DGN format)
        i. Excluding plan sheets produced by the Excel spreadsheets listed below
    c. Cross Sections (DGN format)
    d. Horizontal and vertical geometry data (land XML format)
        i. Only include final alignments and profiles, all design alternative alignments/profiles are removed
    e. Q-Tabs (DGN or Excel if created directly from a spreadsheet)
    f. Construction Notes (DGN or Excel if created directly from a spreadsheet)
    g. Structure Notes (DGN or Excel if created directly from a spreadsheet)
4. Structural Reference Information: Include bridge inspection reports for all bridges within the project limits and as-built plans for all bridges which are being modified as part of the Project scope including but not limited to widening, repair, retrofit (rail, seismic, etc.), painting, overlay and paving. Structural Reference Information should be listed by bridge number.
5. Geotechnical Reports - Include full reports electronically including all supplements, amendments, test pit data, and borings. For all reports include the title, author, and date. The Summary of Geotechnical Considerations and borings should be included in the Appendices of the Contract to ensure they are a contractual document.
6. Final Hydraulics Design Reports.
7. Other Text Reports.

No guarantee or warranty is made by the Contracting Agency that the content of Reference Information is accurate. For further detailed information, review Division 1-04 of the WSDOT *Construction Manual* and the WSDOT *Advertisement and Award Manual*. Contact your Assistant State Design Engineer (ASDE) for more information.

Naming reference files and folders

When setting up appendices and creating folders and files, adhere to Ad & Award's following best practices:

- Do not use spaces in folder and files names – remember these will become internet links and web browsers turn every space into "%20"
- Only use safe characters in file and folder names (alphanumeric and limited special characters (although we recommend using no special characters as a best practice))
- File and folder names should be as short as possible.
- Do not repeat the same text in file and folder names.
- Do not repeat the name of the project in file and folder names.
- Shorten whenever possible (example – use "App" instead of Appendix). The total length of the URL cannot be more than 256 characters (if it is, most browsers will not allow users to view the files and they will get an error message).

HQ Contract Ad & Award will review and rename your documents as necessary to conform to best practices for web posting. Contact the HQ Contract Ad & Award Office for additional information.

700.01(5) Standard Plans

WSDOT's *Standard Plans* are made a part of contracts by reference in the Special Provisions. Whenever possible, utilize the *Standard Plans* in conjunction with Standard Pay Items. Standardized work results in less documentation, fewer change orders, reduced construction costs, and greater maintainability. Do not draw plan details that duplicate *Standard Plans*. In certain circumstances a plan detail may need to be developed that is very closely modeled off a Standard Plan in order to make a construction feature work with site specific constraints. In these cases, consult with Region and HQ subject matter experts to determine feasibility and potential documentation needs.

700.01(6) Competitive Bidding, Proprietary Items, and Use of the Qualified Products List (QPL)

700.01(6)(a) Competitive Bidding

WSDOT uses competitively acquired products to fulfill the requirements of a contract whenever feasible. This helps achieve the lowest prices, the best product quality, and the most efficient use of resources.

There are several ways to specify bid items or materials in a contract that create a competitive bidding environment. Following are three different methods, listed in order of preference:

1. Specifying by Standard or Nonstandard Bid Items

   This method does not use brand names. The contractor is allowed to choose the product, as long as it meets the requirements of the *Standard Specifications* and contract provisions. This method fosters a competitive bidding environment and does not require approval for proprietary items.

2. Specifying Brand Names and Allowing for Approved Equals

When brand name specifying, provide the bidder with options by naming at least two products or manufacturers that are acceptable and allow for "approved equals" followed by a performance specification. When this is done, no approval is required for usage; it is not considered a proprietary item.

A good specification for brand name specifying will read as follows:

The (type of product) furnished shall be (brand name, model), (brand name, model), or an approved equal having the following features (functions):

a. (feature)
b. (feature)
c. (feature)

In order to find the two acceptable items, look for certain features or functions. These features or functions are the ones that need to be clearly identified in the Special Provision.

3. Specifying at Least Three Brand Names

   Listing a reasonable number (three or more) of brand names/models that are acceptable is a competitive bidding environment also and doesn't require approval. A performance specification is not required.

700.01(6)(b) Specifying Proprietary Items

There are instances in which competitive bidding may not or cannot be provided and a specific proprietary product is allowed. This applies to temporary items/ materials as well as permanent items/materials incorporated into the project.

WSDOT has adopted the following policy for use of proprietary items on all projects. Use of proprietary items must meet at least one of the following and are approved at the region level:

1. It is purchased or obtained through competitive bidding with equally suitable other items (the three methods found above).
2. It is certified and approved that:
   a. The proprietary item is essential for synchronization with existing highway facilities. Synchronization may be based on:
      - Function (the proprietary product is necessary for the satisfactory operation of the existing facility. A product could be essential due to the fact that it has been tested with other components and is documented to work with existing components or that it is a one-of-a-kind item. A product or manufacturer could be essential because using anything else would require replacing other components of the existing highway system,
      - Aesthetics (the proprietary product is necessary to match the visual appearance of existing facilities),
      - Logistics (the proprietary product is interchangeable with products in an agency's maintenance inventory), or
      - Any combination thereof with region approval.

Or, with region approval:

b. No other equally suitable alternative exists:

- The product (or manufacturer) is one of a kind.
- Other workable alternative products or manufacturers are not equal in longevity, cost, delivery, durability, compatibility, warranty, and so on.

3. It is used for research or for a distinctive type of construction on relatively short sections of road. It is for experimental purposes to obtain experimental information on a product or manufacturer for the public good. When requesting this type of usage, approval documentation showing the scheduling, monitoring, results, and conclusion are needed.

700.01(6)(c) Using Proprietary Items in Contracts

Before inclusion in the PS&E and prior to advertisement, request and receive written region approval for any proprietary material, work, manufacturer, or product included in a project. Submit a memorandum of justification to the approval authority in sufficient time for it to be reviewed and acted upon.

There are two basic types of requests that can be submitted for approval:

- Use of the proposed proprietary item will be allowed for regionwide or statewide use, referred to as a "blanket certification" (this is usually valid for a biennium). Place a copy of the original certification in the Project File.
  Find all current blanket certification memos by selecting the Tools templates & links tab on the Design tools & support website.
- Use of the proposed proprietary item will be allowed for a specific project only (just for the duration of the project). Retain the original signed region approval in the Project File.

Approval of a proprietary item does not override federal Buy America or Build America, Buy America requirements in section 700.01(7) or the applicable General Special Provisions.

When a proprietary item has been certified or approved, provide in the Special Provisions the product manufacturer, model, model number, and any additional information required to ensure only the specified item will be furnished. There will usually be only one item named in the Special Provisions when listing a proprietary item. The phrase "or approved equal" will **never** follow the naming of a proprietary item in a Special Provision. There are no options allowed. The contractor's bid is to reflect the price to supply and incorporate the one item specified.

700.01(6)(d) Using the Qualified Products List (QPL)

There is a definite difference between specifying a proprietary item and specifying a brand name, and using the Qualified Products List (QPL) which has nothing to do with either proprietary or brand name specifying.

The QPL is a list of products and materials that have been preapproved for use on WSDOT projects. If the contractor chooses to provide items listed on the QPL, there is no need to submit a Request for Approval of Materials. For some products or materials on the QPL, there is no requirement to submit the items for testing prior to using the product or material on the project. However, the listing of a product in the QPL does not preclude the need for a proprietary item request if the conditions described in the previous sections apply.

The preapproval of items in the QPL does not mean they are the only products or materials that will be allowed. The contractor can provide any product or material that meets the specifications, whether they are listed in the QPL or not.

700.01(7) Buy America

700.01(7)(a) Buy America

Buy America requirements apply to projects with federal funding in any phase (Right of Way, Design, or Construction).

Buy America obligates steel and iron construction material permanently incorporated into the project greater than $2,500, to be manufactured in the United States of America. Incorporate GSPs associated with Buy America requirements as necessary. Check with the HQ Design Office during project development to verify whether or not Buy America is required for the project. Check with HQ Construction Office for contract compliance related inquiries during construction. Use this link to review the Buy America memorandum from FHWA and the HQ Design/Construction Offices: https://wsdot.wa.gov/sites/default/files/2021-12/BuyAmericaMemo.pdf.

Due to the conditions set forth by Buy America, both new and salvaged materials fall under the same requirements when applied to Buy America.

Buy America requirements do not apply to steel items that are considered to be temporary, such as form work or false work. Projects involving Federal Transit Administration funds have Buy America requirements as well.

For more information see the following links for Buy America requirements.

- FHWA: https://www.fhwa.dot.gov/construction/contracts/buyam_qa.cfm
- FTA: https://www.transit.dot.gov/buyamerica

700.01(7)(b) Build America, Buy America

Build America, Buy America requirements apply only to projects with federal funding in the Construction phase.

Federal Build America, Buy America law expanded made in America requirements to include all manufactured products and construction materials in construction contracts that include Federal Aid funding in the construction phase.

There are new standard specifications associated with these requirements on affected projects. Contact your Assistant State Construction Engineer for specifications support.

If you have any questions, please contact your Assistant State Design Engineer for inquiries prior to contract award or the HQ Construction Office for contract compliance related inquiries.

Key Aspects of Build America, Buy America Requirements

1. All iron and steel used in the project are to be produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

3. All construction materials are to be manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

Note: Pre and post disaster or emergency response expenditures are exempt.

Waiver Process

Determine if project bid items and materials are reasonably available that meet Build America, Buy America requirements as early as possible in the project development process. For cases when it is not possible or reasonable to meet these requirements, request a waiver(s), which may be approved by the federal authority. Check the USDOT link below to see latest information on any waivers that may already apply. Waivers can be submitted on a project specific basis or as a general applicability waiver (which covers all projects statewide). For both approaches, use the following waiver process:

1. Determine which type of the three waivers applies.

- *Public Interest Waiver* applying the domestic content procurement preference would be inconsistent with the public interest. A waiver in the public interest may be appropriate where the approving federal agency determines that other important policy goals cannot be achieved, and the proposed waiver would not meet the requirements for a nonavailability or unreasonable cost waiver.
- *Nonavailability Waiver* for types of iron, steel, manufactured products, or construction materials that are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality.
- *Unreasonable cost waiver* the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent. Provide documentation that no domestic alternatives are available within this cost parameter. Document in the waiver a comparison of the cost of the domestic product to the cost of the foreign product or a comparison of the overall cost of the project with domestic products to the overall cost of the project with foreign-origin products.

2. Prepare the waiver. All waiver requests must be in writing and include a detailed justification for the use of goods, products, or materials mined, produced, or manufactured outside the United States and a certification that there was a good faith preconstruction effort by WSDOT to ascertain if domestic products are available. Use the WSDOT Buy America Waiver template at the Design Support website (under the tools templates and link tab.)

3. Submit waiver to the appropriate Federal agency. Submit waivers to the Federal agency from which funds have been awarded. In the case of more than one Federal agency, submit waivers to the agency that awarded the most funds, defined as the “Cognizant Agency for Made in America.” Submit waivers to the cognizant agency as applicable.

4. The cognizant Federal agency submits the waiver to the Made in America Office. All waivers have to be submitted by Federal agencies to the Made in America Office. Project specific waivers require a minimum of 15 calendar day public comment period. General applicability waivers are subject to a minimum 30 calendar day public comment period. Federal agencies are responsible for performing due diligence and approving or rejecting waivers.

5. Await response for waivers from the cognizant Federal agency. Plan preconstruction schedules and advertisement dates accordingly.

Definitions

The Federal government has provided the following definitions of terms:

Iron and steel includes all iron or steel products permanently incorporated into the final product.

Construction materials includes an article, material, or supply—other than an item of primarily iron or steel, or a manufactured product. Construction materials are or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or,
- drywall.

Manufactured product includes any item produced as a result of the manufacturing process. Items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

Build America, Buy America Exceptions

Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents are not subject to Build America, Buy America requirements.

Resources:

WSDOT's Waiver template: The WSDOT Waiver Template is available at the Design Support website, from the tools templates and links tab.
https://wsdot.wa.gov/engineering-standards/design-topics/design-tools-and-support

Whitehouse Memo: provides more details about Buy America and instruction on what details should be included in written waivers.
https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf

USDOT webpage: provides links to Federal Agency's Build America, Buy America webpages and information about existing or proposed waivers.
https://www.transportation.gov/office-policy/transportation-policy/made-in-america

700.01(8) Legal Relations and Responsibilities to the Public

Section 1-07 of the *Standard Specifications* requires the contractor to comply with all federal, Tribal, state, or local laws and regulations that affect work under the contract. These laws and regulations do not need to be identified in the contract. However, certain project-specific regulations, such as permits, agreements, MOUs, licenses, variances, or others, and our commitment to meet them need to be identified in the contract. Examples of such regulations with conditions that need to be part of the contract are: HPA, EIS, Noise Variance, Shoreline Permit, Department of Ecology MOU, and other documents that would affect or restrict work on the contract.

In many cases, the GSPs will trigger the need for the text of such documents to be listed in the Special Provision, either as a fill-in or as an appendix. When construction activities require the

need for a permit, variance, agreement, MOU, or other regulations, always discuss the need for such documents to be put in the contract with the appropriate region support personnel or region plans office.

700.01(8)(a) Decommissioning of Wells Procedure

The *Geotechnical Design Manual* Chapter 3 and the *Design Manual* Chapter 610 provide policy and procedure for protection and decommissioning of wells. Contact the Geotechnical office for support on decommissioning wells during project development.

See *Plans Preparation Manual* Division 4 Contract Plans for instruction on showing wells in the plans. The *Electronic Engineering Data Standards Manual* provides symbology for wells.

700.01(9) Washington State Laws

Following is a partial listing of laws that are frequently used in the administration of WSDOT contracts:

1. RCW 4.24.360: Any clause in a construction contract that disallows a contractor, subcontractor, or supplier any damages due to unreasonable delays in performance caused by WSDOT is void and unenforceable.
2. RCW 18.27.090: Contractors are exempt from contractor registration laws provided they are prequalified by WSDOT.
3. RCW 18.104.048: Prior notice of well construction, reconstruction, or decommissioning of wells is required (see 700.01(8)(a)).
4. RCW 19.122.040: Existing utility locations (see 400.06 for the contents of this RCW).
5. RCW 39.12: Wages (see Section 1-07.9 of the *Standard Specifications*).
6. RCW 39.19: See the GSP concerning minority and women's businesses.
7. RCW 46.44: Vehicle weight limitations within project boundaries.
8. RCW 47.28.030: State Force Work and materials (see 700.09(10)(a)).
9. RCW 47.28.035: Related to RCW 47.28.030, State Force Work and materials (see 700.09(10)(b)).
10. RCW 47.28.070: Prequalification of contractors (see Section 1-02.1 of the *Standard Specifications*).
11. RCW 47.28.100: Contractors are allowed 20 days after award to execute a contract. WSDOT may extend this time no more than an additional 20 days (see Sections 1-03.3 and 1-03.5 of the *Standard Specifications*).
12. RCW 47.28.120: Contractors must file their claims within 180 days after acceptance (see Section 1-09.9 of the *Standard Specifications*).
13. RCW 47.30: Requirements for paths and trails.
14. RCW 49.28: Wages – overtime.
15. RCW 60.28.011: WSDOT must hold 5% of the contract amount in reserve for material and worker claims. Contractors can post a bond in lieu of the reserve fund (see Section 1-09.9 of the *Standard Specifications*).

16. RCW 78.44: A Contract Reclamation Plan is required for every WSDOT contract that contains a WSDOT-furnished materials source (see 400.06).

Some of the laws are referenced in the *Standard Specifications* or the GSPs; some are not. In either case, these laws are not to be altered. All Special Provisions that appear to alter a law should be questioned.

700.01(10) Asbestos

There are GSPs that are to be included in the contract provisions regarding asbestos presence or absence in the project work. Provide the asbestos Good Faith Inspection report as part of the bid package to notify contractors of the presence or absence of asbestos containing materials prior to bid opening. Consult *Environmental Manual* Chapter 447 for detailed policy and the following:
Asbestos Good Faith Inspection (GFI) Guidance
Asbestos Good Faith Inspection Compliance Form

700.01(11) Permits

Ensure all permits necessary for the project are completed and signed prior to the project going to Ad. However, in the event this cannot be accomplished, it is the responsibility of the region to determine the risk involved in going to Ad without the completed permit, in accordance with the *Advertisement and Award Manual*. Refer to the *Design Manual* and *Environmental Manual* for more information on types of permits and associated requirements.

700.01(12) Training Goals

The bid item for "Training" is to be provided on most federal-aid projects. For projects with federal-aid dollars, 23 CFR Part 230.111 requires all state highway agencies to review projects to determine their ability to support the inclusion of "Training Special Provisions" hours. The training goals, in terms of the total number of training hours required, are established by the HQ External Civil Rights Office. The number of training hours, if assigned to a project, is based on the following:

- Total estimated project labor hours
- Availability of minorities, women, and other disadvantaged individuals
- Potential for effective training
- Duration of the contract
- Dollar value of the contract
- Anticipated workforce size
- Project location
- Scopes of work

The region may submit a training recommendation for consideration by the HQ Office of Equity and Civil Rights. If the region is submitting a training recommendation, it needs to provide an estimation of total projected project labor hours.

Note: If you have any questions regarding either of the two programs referred to above, please contact the WSDOT Office of Equity and Civil Rights at 360-705-7090.

700.01(13) Assigning the Risk

It is important that the contractor be able to determine whether the risks on the project will be the contractor's responsibility or will be borne by WSDOT. In most cases, it is best to assign the risk to WSDOT. This keeps the contractor from having to inflate bid prices to offset the possible risks of doing the work. These inflated prices cost WSDOT extra dollars when the problem does not materialize.

- For example, do not say, "The contractor may encounter obstructions during the excavation." The contractor has to assume that obstructions will be encountered and that they will be the contractor's problem when they are. The unit price for the excavation will include the cost of obstruction removal, and WSDOT will pay for the removal even if there are no obstructions encountered.
- Instead say, "If obstructions are encountered during excavation, the Engineer will pay for the removal of the obstruction in accordance with Section 1-09.4 of the *Standard Specifications*." Now the contractor can bid the actual cost of doing the excavation work and be confident that if something out of the ordinary is encountered, the cost of removal will be dealt with fairly, and if there are no obstructions encountered, there is no cost to WSDOT.

700.01(14) Agreements

An agreement (for the purpose of this section) is a written contract between WSDOT and another party or parties (public, private, or both) establishing an exchange of benefits and/or obligations.

Another party may be financially responsible for some of the work in WSDOT's contract, such as the construction of sidewalks, utility installations, signal systems, pavement markings, intersection improvements, and so on.

Agreements that include work that WSDOT's contractor will perform, or work performed by others that WSDOT will reimburse a third party for, need to be addressed by Standard Specifications or in the project Special Provisions.

Ensure that the quantities, bid item names, units of measurement, and prices in the agreement are the same as those in the PS&E.

Each bid item needs to be set up with a separate bid item name and placed in a separate group in the Summary of Quantities. If a nonstandard bid item is used, a project-specific provision will be required with prior approval from the Assistant State Construction Engineer. Each bid item needs to be addressed, clearly, in the *Standard Specifications* or Special Provisions.

When preparing the estimate of cost for an agreement for work under the contract that is the financial responsibility of an outside agency, include mobilization, engineering, and contingencies.

Complete and sign all agreements necessary for the project before the project is advertised. If this cannot be accomplished, it is the responsibility of the region to determine the risk involved in going to Ad without the completed agreement, in accordance with the *Advertisement and Award Manual*.

See the *Agreements Manual* for guidance on agreement elements, structure and processes or contact region personnel responsible for processing agreements or the HQ Utilities, Railroad, and Agreements Section.

700.01(14)(a) Haul Road and Detour Agreements

When the project provides a materials source, or requires traffic to be detoured from the state highway, the region may be required to acquire agreements with the owners of the roads that will be used as the haul road or the detour route. (See the Haul Road/Detour Agreements chapter in the *Agreements Manual* for guidance.) The process of generating an agreement should be started as early in the design phase as possible. Discuss with region personnel responsible for processing agreements. The lack of a completed agreement may cause a project Ad date to be delayed. It is the responsibility of the region to determine the risk involved in going to Ad without the completed agreement, in accordance with the *Advertisement and Award Manual*.

The agreement will normally provide compensation to the owner of the haul road or detour for damage done to the road by the hauling equipment or by the extra traffic on the roadway. The compensation may be in the form of work to be done under the contract to bring the roads back to precontract conditions, or the owner may be paid a cash settlement and would be responsible for making the repairs.

All haul roads and detours are to be clearly shown and labeled on the Vicinity Map.

700.01(15) Vehicle Weight Limitations Within Project Boundaries

Review each individual project to determine whether the vehicles employed in the construction that exceed the gross weight limitations, per RCW 46.44, can be tolerated.

When existing bridges or major drainage structures are involved, obtain overweight clearance from the HQ Bridge and Structures Office and include it in the Project File.

Use the information in the *Standard Specifications* section 1-07.7, or include the appropriate GSP in the contract provisions, to inform the contractor of the load limit restrictions for the project.

700.01(16) Working Days

Give careful consideration to the number of working days allowed for a project. Too many working days can cause as many problems as not enough working days.

The following are example considerations for working days that can make a difference between a one and two season project. Evaluate working days with these types of restrictions in mind.

- The time of advertisement
- Materials procurement time
- Restrictions to the duration and when closures can occur
- Water work windows restrictions

The determination of working days for the different work items is to be based on production rates and other considerations (see the Appendices). Using the time required for the individual work items, the Critical Path Method (CPM) (see Appendix 6) is then used to determine how the project work will fit together, and the total number of working days will be determined.

The working days required for bridge construction are to be coordinated with the working days required for the other construction.

Place the CPM in the Project File.

700.01(17) Liquidated Damages

700.01(17)(a) HQ Construction Office Approval Required

Liquidated damages are monies assessed or withheld from the contractor's payment for failure to complete the project within a specified period of time. Liquidated damages are not to be considered a penalty, but reimbursement for the costs to the contracting agency for the contractor's failure to perform within the time frame of the project.

There are two types of liquidated damages to be considered for a project:

1. **Contract Time-Related Liquidated Damages**

   Liquidated Damages are calculated for each WSDOT Design-Bid-Build project for failure to complete the physical work within the allotted contract time. Liquidated Damages are not to be considered a penalty, but reimbursement for the costs to the contracting agency associated with administering the contract beyond the specified contract time.

   The design team is responsible for completing the Design Liquidated Damages Calculation Sheet to determine the liquidated damages (LD) amount, which will be used in a fill-in for Special Provision 1-08.9.OPT3.FR1. Within the calculation sheet workbook are instructions and a completed example calculation sheet, for reference.

   This calculation should be accomplished near to the 90% design milestone. The Design Project Engineer should coordinate with the Construction Project Engineer to evaluate workforce projections, as well as any other available information, such as per diem, overtime, and travel time, to fill out the calculation sheet.

   It is recognized that work force fluctuates during the life of the project. Review the work force for the duration of the project and select a day that best represents the staffing levels anticipated for the majority of the project. Document the workforce assumptions in the Comments/Assumptions/Staffing Notes section at the bottom of the form.

   The Liquidated Damages Calculation Sheet will be kept in the Project File documentation in the region.

2. **Interim Completion of Phases (Staging)**

   Interim liquidated damages are monies assessed or withheld from the contractor's payment for failure to complete a part (phase or stage) of the project within a specific period of time identified in the Special Provisions.

   Large or complex projects often have interim completion times, with liquidated damages for such things as failure to open a closed lane(s), ramp(s), or detour(s) to all traffic by a specified time, or for completion of all work identified for a specific stage or phase of a project as defined in the Special Provisions. These types of liquidated damages can be assessed in time increments that range from 15-minute to full-day segments.

   Liquidated damages assessed for failure to have a lane, ramp, or roadway open to traffic, or to have an Intelligent Transportation System (ITS) operational at the specified time, are an estimate of the actual cost to the contracting agency and the traveling public for not having that portion of the road or ITS available. Transportation Data, GIS, and Modelling Group (TDGMG) has standardized methodology for calculating the cost, based on traffic counts. This is the only acceptable way of calculating these costs.

Download and complete WSDOT Form 312-001 to request interim liquidated damages from TDGMG.

Once these calculated costs are received from TDGMG, the region determines whether or not the damages represent a sufficient benefit to the state to put them in the contract.

Interim liquidated damages for two or more separate reasons can be additive for the same time period.

Place copies of the data used to justify liquidated damages and the TDGMG information in the Project File.

700.01(18) Fuel Cost Adjustment

The GSP Instructions contain guidance for use of the Fuel Cost Adjustment item.

Check with the HQ Construction Office to verify whether or not this item is required for the project.

700.01(19) Steel Cost Adjustment

The Steel Cost Adjustment item can be used in projects which contain 50,000 pounds or more of steel. Instructions for its use are contained in the GSP Instructions. The Steel Cost Worksheet Template can be used to calculate this adjustment. Follow instructions for the General Special Provisions in Division 1.

700.01(20) Force Account Work

Standard Item Number 7715, "Force Account ____," has been created to monitor the total amount of money spent on force account work. This standard item, with the appropriate fill-in information, is to be used for all force account bid items, except for those that already have a standard item number.

If work can be measured and clearly identified, the design should use existing standard bid items. If the work is not quantifiable or cannot be easily measurable, the use of this item may be appropriate.

The use of this standard item number does not preclude the need for a project-specific provision to describe the work to be accomplished.

Place the force account item in the appropriate section on the Summary of Quantities. (A force account removal item would be placed with the other removal items; a force account structure item would be placed with the other structure items.)

700.01(21) Lump Sum Bid Items

A lump sum bid item may include several items of work or the same item of work at different locations. The Special Provisions must cover the complete item of work, including the description of work, materials, construction requirements (which includes the approximate quantities for bidding purposes), and payment statements. Double check quantities listed to avoid contractor claims.

Only include lump sum items work that can be easily defined by quantity, amount of effort, and equipment and labor requirements. If any of these items are unknown/uncertain, payment at unit prices or by force account would be more appropriate.

Place backup data used to determine the estimated cost for lump sum bid items in the Project File.

Decide whether each lump sum bid item is to be prorated or whether individual Summary of Quantities column costs are to be assigned for each lump sum bid item.

700.02 Earthwork

700.02(1) Earthwork Measurement

Measurement of earthwork other than as specified in the *Standard Specifications for Road, Bridge, and Municipal Construction (Standard Specifications)* requires the approval of the HQ Construction Office. (See Division 6 for more information on developing a Special Provision.)

700.02(2) Clearing and Grubbing

When estimating quantities, calculate clearing as being performed 10 feet, and grubbing 7 feet, beyond the toe of slope for embankments and the upper limit of slope treatment in cuts. Coordinate with the Region Landscape and Environmental offices on the proposed limits, and show these limits on the proper plan sheets. If clearing and grubbing limits are near trees contact the Region Landscape Architect to adjust limits of clearing to reduce the risk of leaving danger trees.

If clearing requires the cutting of merchantable timber amounting to at least one log truck load (approximately 5,000 board feet) from within the right of way, the General Special Provision (GSP) for Timber Export Restrictions is to be included in the contract provisions. This GSP notifies the contractor that they will be required to pay to the Department of Revenue the forest excise tax on the harvested lumber.

700.02(3) Removal of Pavement, Sidewalks, or Curbs

The method of measuring and paying for work requiring removal of pavement, sidewalk, or curb, is determined by where work is occurring: within or outside the limits of an excavation area.

700.02(3)(a) Outside

When pavement, sidewalk, or curb removal is required **outside the limits** of an excavation area, it can be included in the lump sum price for "Removal of Structures and Obstructions," or separate bid items may be established for the work.

If the work is included as part of the lump sum item, the Special Provisions will indicate the approximate locations and quantities. If separate bid items for removal are established, the individual items will appear on the Quantity Tabulation sheets, where the approximate locations and quantities will be indicated. In either case, indicate the locations of the removal items on the plans as well.

700.02(3)(b) Within

When pavement, sidewalk, or curb removal is required **within the horizontal and vertical limits** of an excavation area, nothing is required on the plans or in the Special Provisions. All costs for the removal of the pavement, sidewalk, or curb are included in the excavation work, and no additional compensation is made to the contractor.

If the contract specifies staging the work to remove the pavement, sidewalk, or curb that lies

within an excavation area prior to performing the excavation, the work would be handled as described above for removal outside an excavation area.

700.02(4) Borrow Material

Because WSDOT is committed to conserving valuable mineral resources, give careful consideration to the earthwork portion of every project, to ensure the most efficient and cost-effective use of the material from the roadway excavations.

If there is insufficient roadway excavation material due to a shortage of on-site material or a portion of, the on-site material is known to be unacceptable for constructing embankments, material will be imported, and a borrow item will be included in the project.

If the borrow is required because the roadway excavation material is not acceptable for embankment construction, the Special Provisions shall identify the locations of the unacceptable roadway excavation material. Consult with the Region Plans Office on how this information is to be presented.

If WSDOT's intent to have borrow and roadway excavation materials used together, note if a single type of borrow material is required to supplement the quantity of roadway excavation material. It will be the contractor's responsibility to determine the most efficient and cost-effective means and operations of using the on-site material and the borrow to construct the embankments. In this situation, the borrow material quantities will appear only on the Summary of Quantities and will not be shown as a quantity on the roadway profile sheets. Note in the Contract Plans or the Special Provisions that the quantity of borrow shown in the Summary of Quantities is to be used to supplement the quantity of roadway excavation at the contractor's discretion for constructing embankments.

If the borrow material is being used only at specific, well-defined locations on the project (bridge end embankments, for example), identify the exact locations on the roadway profile by showing the quantity arrow, indicating the station-to-station limits and quantity of borrow material needed for the embankment construction. If profiles are not included in the project, the Special Provisions are to contain a statement such as, "Gravel borrow shall be used to construct the bridge end embankments, L X+XX to L X+XX."

If two or more types of borrow material are required, the specific locations for all but one of the types of borrow shall be identified on the profiles, or in the Special Provisions, as described above. For example:

- If gravel borrow is required for the construction of bridge end embankments, and common borrow is required to supplement the roadway excavation material to construct other embankments, the station-to-station limits of the gravel borrow material are to be shown on the profiles or in the Special Provisions. It will remain the contractor's responsibility to determine the most efficient and cost-effective way to use the common borrow and the roadway excavation material to construct the remaining embankments. Therefore, show the common borrow quantity only in the Summary of Quantities.

In all cases, the quantities for roadway excavation and embankment shall appear on the Summary of Quantities and on the Profile sheets or, on smaller projects, tabulated on Quantity Tabulation sheets.

700.02(5) Embankment In Place

This bid item is to be used on projects where earthwork consists mainly of borrow excavation. It

provides payment for acquiring, excavating, hauling, placing, and compacting borrow materials to construct the embankment.

If there are minor quantities of roadway excavation included in the project, this work can be included in the item "Embankment In Place." Measurement for payment will be by the cubic yard volume between the original ground line and the neat lines of the embankment template. No allowance is made for subsidence or settlement.

The use of this item requires a Special Provision and approval by the HQ Construction Office. Include the following information when requesting to use this item:

- Assurance that the foundation on which the embankment material is to be placed is unyielding.
- Estimated quantities of excavation, embankment compaction, and roadway excavation.

700.02(6) Aeration

If it is found necessary or desirable to include the bid item "Aeration" in a project, approval by the Headquarters (HQ) Construction Office is required. Include a copy of this written approval in the Project File.

700.02(7) Shoring or Extra Excavation

All excavations of 4 feet or more in depth shall be shored, protected by cofferdams, or shall meet the open-pit requirements specified in the *Standard Specifications*.

RCW 39.04.180 requires that a separate bid item for shoring or extra excavation be included in the estimate and proposal. **NOTE:** in no case shall the costs for shoring or extra excavation be included in other bid items.

700.03 Production From Quarry and Pit Sites and Stockpiling

700.03(1) Materials Sources and Waste Sites

Materials sources provided by the contracting agency can be either mandatory or nonmandatory sites. For mandatory sites, verify with the region ASDE on the appropriate documentation needed, and refer to *Design Manual* Chapter 300 for approval authority of mandatory sites.

When mandatory materials sources or waste sites are specified, the region shall provide a memorandum of justification. For mandatory materials sources, justification shall be made in accordance with 23 CFR 635.407, showing a definite finding that it is in the public's best interest to require the use of the mandatory sites furnished or designated by the contracting agency. The use of mandatory sites can also be designated based on environmental considerations, provided the environment would be substantially enhanced without excessive cost. Place the memorandum of justification in the Project File.

When nonmandatory sites are specified, the contracting agency makes the site available to the contractor, but the contractor has the option to use or not use the site.

For any mandatory source or waste site to be used, coordinate with the Region Plans, Materials, and Environmental offices.

Bid items for work to be performed within a nonmandatory site are to be site-specific; for example, “Wire Fence Type 1 – QS-X-XX.” (See the GSP for State Furnished Material Sources in Division 3 for more information.) This allows the contractor the opportunity to bid zero for these site-specific items if they do not intend to use the site. If the contractor decides later to use the site, the work specified by the site-specific items will be performed, and the contractor will be paid at the bid amount of $0.00.

Site-specific items are not required for work to be performed on mandatory sites.

Set up a separate column, under the appropriate group, for each material source or waste site provided by the contracting agency. This allows the contractor to easily identify the work to be performed within a site and also allows for easy accounting of the work by WSDOT.

The region shall prepare a Haul Road Agreement if the haul route to or from the site is other than a state highway.

700.03(2) Stockpiling Aggregates

Under the construction contract, the regions are authorized to spend M5 funds for acquisition of aggregates, provided the region’s biennial M5 allocation is not exceeded.

The following Headquarters offices need to be advised by the region of all M5 aggregate stockpile acquisitions made under a construction contract:

- Administrative Services Office, Purchasing and Inventory Branch
- Comptroller’s Office, Budget Management Branch
- Program Management Office, Program Manager
- Pre-Contract Administration Office

700.03(3) Amortization of Materials and Stockpile Sites

If a state source of materials is provided, the project report form is to include the dollar amount

to be amortized, providing the region intends that amortization be included in the project.

The estimate will include the dollar amount so that federal-aid participation can be obtained on federal-aid projects, or so that proper accounting procedures can be followed when only state funds are involved.

700.03(4) Royalties on Materials Sites

If the contracting agency furnishes a materials site owned by others, and the owner requires that a royalty be paid for materials removed from the site, specify the dollar amount of the royalty, and who will be responsible to pay the royalty, in the Special Provisions. FHWA has authorized federal-aid participation in royalty payments.

700.04 Bases

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700.05 Surface Treatments and Pavements

700.05(1) Asphalt for Fog Seal

The item “Asphalt for Fog Seal" is normally associated with bituminous surface treatment (BST) projects and the shoulders of paving projects that place only HMA in the traffic lanes, and it is required on all open-graded HMA projects as well.

700.05(2) Soil Residual Herbicide

The item “Soil Residual Herbicide” should be used prior to the application of BST and in conjunction with HMA, asphalt concrete sidewalks and paths, or parking lots only when very aggressive weeds that are capable of breaking through pavement are in the vicinity. Those weeds include equisetum and knotweeds. Check with the Maintenance Superintendent responsible for the area for a recommendation on whether soil residual herbicide is required.

700.05(3) Commercial HMA

If approved by the Region Materials Engineer, any quantity (tons) of Commercial HMA may be used for the following applications:

- Prelevel
- Sidewalks
- Ditches
- Paths
- Gores
- Digouts
- Road Approaches
- Slopes
- Trails
- Other nonstructural applications approved by the Project Engineer.

700.05(4) HMA for Preleveling

Provide the bid item “HMA for Preleveling Cl. ____ PG ____” when a project requires preleveling

of the existing roadway surface.

Base the quantity of preleveling on a survey of field conditions. In some regions, this survey may be made by the Materials Laboratory and it may provide the prelevel rate or quantity.

The roadway sections should show in the typical sections where and what type of prelevel is to be completed (wheel rutting or on a lane to correct a super rate issue) so that the contractor knows how to bid and what equipment is expected to be used.

700.05(5) HMA for Approach

Use the item "HMA for Approach Cl.____ PG____" when there are road approaches to be paved on the project. This is not to be confused with county roads and city street intersections. Include county road and city street intersections in main line paving quantities.

Identify road approaches by approach sections on the roadway section sheets, and on the Paving Plans, if they are present, so the contractor is aware of the number, locations, and paving requirements. Place HMA quantities for each approach either in a table or in the Quantity Tabulation sheets.

700.05(6) Asphalt Cost Price Adjustment

Asphalt Cost Price Adjustment is required for all projects containing Hot Mix Asphalt. Use the Instructions Tab on the Payment Calculator Spreadsheet for information on how to determine the estimate. The references costs and Payment Calculator Spreadsheet is located at:

https://wsdot.wa.gov/business-wsdot/how-do-business-us/public-works-contracts/payments-reporting/escalation-clauses

700.05(7) Other Price Adjustments

Check with the HQ Construction Office to verify whether or not any other price adjustments are required for the project.

To determine the Engineer's Estimate for other price adjustment bid item use the Payment Calculator Spreadsheet located at:

https://wsdot.wa.gov/business-wsdot/how-do-business-us/public-works-contracts/payments-reporting/escalation-clauses

700.05(8) HMA Quality Assurance

As an incentive for contractors to provide superior quality HMA, the Washington State Department of Transportation (WSDOT) will pay a bonus of up to 8% of the unit bid price of the HMA. The bonus is comprised of 3% for the mixture and 5% for compaction. When a project calls for paving with HMA, the item "Job Mix Compliance Price Adjustment" (JMCPA) will be required, with the exception of HMA accepted by Visual Evaluation. For HMA accepted by Visual Evaluation, this item is only used when there is nonconforming mix resulting in a credit. For HMA accepted by Visual Evaluation, the JMCPA will be -$1 for the estimate. For HMA accepted by statistical evaluation, the JMCPA will be calculated using the following formula:

JMCPA = (0.03) (TEC)

Where:
TEC = Summation of the Total Estimated Cost of HMA accepted by statistical evaluation.

Example:

Description Quantity Unit Price Est. Cost

HMA Cl. ½ IN. PG_ (2,600 tons) ($70.00) = $182,000

Summation of Total Est. Costs (TEC) = $182,000

JMCPA = (0.03)($182,000)

JMCPA = $5,460

Use $5,500 for "Job Mix Compliance Price Adjustment"

When a project calls for paving with HMA, the item "Compaction Price Adjustment" (CPA) will be required, regardless of the tonnage, if the total compacted depth for a class of HMA placed in the traffic lanes is greater than 0.10 foot.

The price adjustment will be calculated using the following formula:

CPA = (0.05) (TWTEC)

Where:

TWTEC = Travel Way Total Estimated Cost of HMA with a total depth greater than 0.10 foot.

Note: If the same compaction effort is required on the shoulders, the shoulders will be included in the calculations for "Compaction Price Adjustment" (for example, where the shoulders are currently being constructed full depth because they will become a driving lane in the future or where shoulder driving is going to be allowed). If this is the case, see GSP 5-04.3(10)opt1.gr5.

Example:

HMA CL ½ IN. PG_:

Length: 500'

Width: 2 lanes @ 12' and 2 shoulders @ 10.0'

Depth: 1 lift @ 0.20' depth

Unit Price: $100/ton

Conversion factor: 2.05 t/cy

TWTEC = (500')(24')(0.20')(2.05 t/cy)($100/ton)(1 cy/27 ft^3)

TWTEC = $18,222.22

HMA CL ½ IN. PG_:

Length: 300'

Width: 2 lanes @ 12' and 2 shoulders @ 4'

Depth: 1 lift @ 0.15' depth

Unit Price: $145/ton

TWTEC = (300')(24')(0.15')(2.05 t/cy)($145/ton)(1 cy/27 ft^3)

TWTEC = $11,890.00

Travel Way Total Est. Cost

(TWTEC) = $18,222.22 + $11,890.00 = $30,112.22

CPA = (0.05)($30,112.22) = $1,505.61

Use $1,510 for "Compaction Price Adjustment"

700.05(9) PCCP Joint Matching

Provide the bid item "PCCP Joint Matching" when a project is paving adjacent to a preexisting pavement joint, where the adjacent pavement is to remain and no PCCP pavement grinding per Std Spec 5-01.3(1) is anticipated.

Measure the quantity per linear foot of joint edge that will be treated per Std. Spec. 5-05.3(9).

700.06 Structures

700.06(1) Structural Reference Information

The region will be responsible to provide prospective bidders with reference information needed for evaluating all bridges, within the project limits, as to their potential ability to carry loads or materials that exceed the load limits specified in the *Standard Specifications* 1-07.7. Bidders will then be able to make adjustment to bid costs associated with any engineering requirements if they anticipate using loads exceeding the allowable limits during construction.

The following items should be included as Structural Reference Information:

- The most recent Inspection Report for all existing bridges and buried structures located within the Project limits.
- As-built plans and shop drawings for all existing bridges and buried structures which are being modified as part of the project scope including but not limited to widening, repair, retrofit (rail, seismic, substructure, etc.), painting, overlay and paving.

Reference information for most structures is available on Bridge Engineering Information System (beist.wsdot.loc/InventoryAndRepair/Inventory/BRIDGE) and Enterprise Content Management (wsdotecm/portal). For information not available at these sources, contract HQ Bridge and Structures Office.

For HQ ad and award projects, the project office should send the collected reference information to the HQ Contract Ad and Award (CAA) Office. The HQ CAA Office will issue a notice to prospective bidders, once the project is advertised, indicating the availability of the structural reference information.

700.06(2) Retaining Walls

When a project contains standard retaining walls, as detailed in *the Standard Plans for Road, Bridge, and Municipal Construction* (*Standard Plans*), the Contract Plans shall include:

- A plan and profile of the wall, with original and proposed ground profiles at the front and back faces of the wall.
- All existing utilities in the vicinity of the wall.
- Wall geometry.
- Right of way limits.

- Construction sequence and stage construction sequence requirements.
- Highest permissible elevation for foundation construction.
- Location, depth, and extent of unsuitable material.
- Quantities for the wall and backfill materials.
- Details of wall appurtenances such as traffic barriers; coping; wall face treatment and limits of treatment; drain outlets; and location of signs and lighting, including conduit locations.

In general, a site that will support a standard cantilever retaining wall will also support a proprietary retaining wall. If the region decides to provide preapproved proprietary retaining wall systems as an alternate, consult the HQ Materials Laboratory Foundation Engineer and the HQ Bridge and Structures Office Bridge Project Engineer on the selection of suitable wall systems for the conditions. In order to evaluate aesthetic considerations, submit a rough site plan to the HQ Bridge Project Engineer for review.

The region will be required to contact the suppliers of the selected retaining wall systems to confirm the adequacy of the systems for the given situation. Contact the HQ Materials Laboratory Foundation Engineer to provide assistance in evaluating the systems for overall stability and to provide soil criteria for design.

The HQ Bridge and Structures Office will prepare the Special Provisions for preapproved proprietary retaining walls, including design criteria. The HQ Foundation Engineer will be consulted for establishing the criteria for design. The Special Provisions will require the proprietary wall manufacturer selected by the contractor to submit shop plans, design criteria, and calculations to the HQ Foundation Engineer for approval. The HQ Bridge and Structures Office will then review the design submitted by the preapproved proprietary wall manufacturer.

In addition, keep in mind that these retaining wall alternates may be selected by the contractor and that all of these alternates are proprietary. On all federal-aid projects, two alternates must be selected, or reasons for using fewer alternates must be submitted for approval to the Assistant State Design Engineer assigned to the region. Proprietary retaining wall systems are preapproved for certain heights. Walls that exceed the preapproved height will be considered special designs and each must be submitted to the HQ Bridge and Structures Office for review and approval.

700.06(3) Contractor Supplied Designs for Buried Structures

When a project includes a contractor supplied design for a buried structure, the Contract Documents shall include:

- Location of the buried structure, headwall and wingwalls and their geometry, including alignment, length, profile and elevations
- The location of the Structure Free Zone and the 500 year scour surface
- The streambed section including buried structure bedding material
- Barrier and fall protection locations and configuration
- Approach slab locations when they are anticipated (when the top surface of the structure will be the driving surface)
- Any restrictions on the type of buried structure
- Any restrictions on headwall, wingwall, barriers and fall protection types

- Buried structure staging requirements
- The project geotechnical report referenced in the design
- Whether the site is Marine, Non-Marine: Corrosive or Non-Marine: Non-Corrosive as defined in the WSDOT *Bridge Design Manual* Section 6.7, and the specific pH, resistivity, chloride and sulfate measurements of existing soil and water.
- Environmental requirements of the structure
- Aesthetic requirements of the structure
- A schedule for construction that can accommodate placement, backfill, structural connections/deck placement, approach slab construction, etc.
- A lump sum bid item called "Contractor Designed Buried Structure No. _____" together with a list of components to be included in the lump sum bid item
- A bid item called "Shoring or Extra Excavation Cl. A ____ "
- A method of measurement and payment for earthwork and all other items related to the buried structure construction

700.07 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits

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700.08 Miscellaneous Construction

700.08(1) Temporary Erosion and Sediment Control Plans

The *Temporary Erosion and Sediment Control Manual* (TESCM) provides policy for preventing erosion-related impacts to waters of the state during construction and complying with the NPDES Construction Stormwater General Permit (Permit). The TESCM provides detailed information on Temporary Erosion and Sediment Control (TESC) planning associated with compliance with water quality standards and the Permit. The goal of TESC planning is to identify and mitigate stormwater risks associated with erosion, sedimentation, and other construction-related pollutants that can harm the environment and waters of the state.

A TESC Plan (which includes a narrative section and plan sheets) describes the site-specific erosion risks associated with the project and lists the best management practices (BMPs) selected to reduce or eliminate the identified risks.

Multiple resources for TESC Plan design exist, including the *TESCM*, *Design Manual*, *Highway Runoff Manual*, *Roadside Manual*, *Hydraulics Manual*, *Standard Specifications* (Divisions 8-01 and 9-14), and *Standard Plans*. Other resources include the Environmental Guidance website under Stormwater & water quality page, Region Environmental or Hydraulics staff and HQ Environmental Services Office Stormwater Permit Program staff.

Proper planning can reduce stormwater-related erosion risks on construction sites. Use the *TESCM* and refer to the WSDOT Stormwater & water quality page for guidance, policy, templates, and checklists designed to assist with you with writing and reviewing erosion control plans; obtaining, transferring, and terminating Permit coverage; contract development and material selection; and discharge monitoring and reporting requirements.

A TESC Plan is required for any project that will result in soil disturbance. For projects covered under the Permit, a more comprehensive TESC Plan must be developed and enforced. For smaller earth disturbing projects that do not require Permit coverage, an Abbreviated TESC plan must be developed. Consult the *TESCM* Chapter 2 to for details. Chapter 2 also provides required contents for the narrative and plan details.

TESC work must be shown in the Contract. This is especially important when using Erosion Control and Water Pollution Prevention Lump Sum.

For projects that do not have Permit coverage but involve earth-disturbing work and contain an item for Erosion Control and Water Pollution Prevention (LS), Erosion/Water Pollution Control (FA) or specific bid items, the work must be shown in the contract. Such projects typically have an Abbreviated TESC Plan (sometimes referred to as a TESC "Memo").

700.08(2) Roadside Restoration and Considerations

The roadside blends the highway facility into the natural and built environment and provides operational, visual, and environmental functions. For all projects requiring work outside the shoulders, restoration of the roadside asset is required. Contact the Region Landscape Architect (LA) or HQ Landscape Architect (for regions without one) early in the project to assist in meeting the functional needs and to determine ways to avoid, minimize and mitigate impacts to the roadside.

The roadside work will require coordination with Maintenance to identify problem areas that can be addressed with project work, such as areas where long-term weed control issues exist, areas where future restoration is desirable, and areas with deficiencies. The project can ensure these concerns are addressed when performing restoration. This avoidance and minimization work may require consultation on and edits to plan sheets outside of the planting plans.

If areas of noxious weeds exist within the project limits, the designer may arrange to have WSDOT maintenance forces treat them prior to earth-moving activities using construction funding, or the project can include weed control prior to this work, when project timing is not adversely affected. Including treatment prior to earthwork can avoid spreading noxious and invasive species of weeds, if they exist in the project vicinity. For projects that last through multiple seasons, weed control throughout the duration of the project should be specified for all areas within the right of way and all maintenance activities need to be planned for within the project limits. If the project needs weed control (outside of planting areas), the separate weed control standard bid item must be included.

Sometimes, minor modifications to grading or adjustments to equipment location can help to reduce vegetation or environmental impacts, areas that are not usually considered in the first-pass of putting together project plans. It is important to preserve existing desirable vegetation and to minimize disturbance and compaction of existing soils as much as possible. This will minimize water runoff, reduce erosion during the project, and reduce impacts that require restoration and mitigation.

Site preparation is more effective if it is noted on the major project site preparation plans, as the prime contractor is most likely to see that information prior to any required activity. Additionally, the LA may add site preparation plans to cover the roadside work when the site is more complicated than a single preparation strategy such as simply clearing and grubbing.

The *Roadside Policy Manual* outlines requirements for vegetation preservation and revegetation. The Landscape Architect can assist the designer in fulfilling these requirements.

The Roadside Restoration Worksheet or coordination with the Region Landscape Architect, should be referenced to determine the impacts and restoration needs that were determined for the project during the scoping process. The Roadside Restoration Worksheet is a vehicle for planning the necessary budget to cover costs of restoration, but cannot fully predict the costs generated by unanticipated clearing, to accommodate such issues as site access. It is not necessary to complete the Worksheet when projects only require small items such as seeding; however it is important that the scoper, or designer, consult with the LA office to ensure that the budget will be adequate for the project.

Consider the various elements of the project that are viewed by the highway user and from adjacent areas. Elements such as lighting standards, sign bridge types, traffic barriers, rockfall protection, bridge and wall design, textures and colors, contour grading, stormwater treatment and storage facilities, and vegetation blend the project into the context of the environment and provide a unified visual experience through the corridor. Consult with the region LA or the Headquarters Roadside and Site Development office, where the region does not have its own LA, to provide guidance. The LA works with the HQ Bridge and Structures Architect to ensure continuity with architectural features.

Permanent vegetation provides erosion control, slope stabilization, weed minimization, stormwater treatment and storage, and can reduce traffic-related pollutants and protect the public from air pollution. The Landscape Architect can provide expertise to identify and blend visual elements.

All site components that are made available to the public must comply with the Americans with Disabilities Act (ADA). See Design Manual Chapter 1510 for further information.

700.08(3) Earthwork for Roadside Installations

Estimate and include in the contract earthwork quantities associated with features installed outside the typical shoulder break point. These installations include, but are not limited to, guardrail terminals, luminaires, and ITS equipment. Refer to the layout and dimensions shown in the *Standard Plans* or project details when calculating quantities, and provide a separate tabulation for each location. Alternatively, quantities may be made incidental to the item being installed, if that approach provides an advantage in project contracting or construction inspection.

Note that earthwork for widening is not normally included in the roadway earthwork calculations, and therefore needs to be tracked and documented separately.

700.09 Other Contract Considerations

700.09(1) Combining Bid Items

In an effort to streamline projects to make them easier for WSDOT to manage, as well as easier for the contractors to bid, some thought should be given on each project to doing similar, or associated, work under a single bid item instead of having two or more items under which to work.

The lump sum item "Removal of Structure and Obstruction" has always been made up of a combination of various removal items, and this will not change. This item is not governed by an estimated cost limit for work that can be included. As long as each different removal item is precisely described as to the actual work to be performed, the locations of the work, and the estimated quantity of work, there are no limits to the removal work that can be combined in the single "Removal of Structure and Obstruction" item. (See 700.09(4) for additional discussion on lump sum items.)

Work that is measurable—estimated cost of $5,000 or greater—will be a separate bid item. However, if the work is minor—estimated cost of less than $5,000— and there is a logical item of work with which to associate the minor work, the items may be combined and the cost of the minor work included in the cost of the associated work. A nonstandard bid item is created to capture all of the work involved when combining bid items.

When combining items of work, additional information is required to describe the work involved, to clearly identify what items are being combined, and that the quantities provided for the combined items need be more accurately calculated.

For example, do not combine the cost of structure excavation with the cost of the pipe without giving a reasonably accurate estimated quantity for the structure excavation required for each pipe. Giving the total estimated quantity for the structure excavation does not provide the contractor a clear enough picture of the work required to make a responsible bid.

Accuracy of estimating quantities is also important because it can be difficult to address overruns, underruns, or added work when only one portion of the item combination is involved in the overrun or underrun, or work is added to only one of the items of work.

Care must be taken to ensure that by combining the items of work, additional problems will not be encountered during construction because of changes in conditions or work methods.

Items being combined shall relate to each other well and the quantities shall be dependent on each other, so if one changes in the field, the associated quantities would be affected uniformly.

700.09(1)(a) Example of Combining Similar Items

If the project had a few locations where stormwater pipes were to be installed, and depth of trenches were approximately the same, it would be acceptable to include the cost of structure excavation with the per-foot price for the size and type of stormwater pipes. This could be a good combination because the items are closely associated and the quantities may be dependent on one another. The quantity for structure excavation is dependent on the amount of pipe installed and will increase or decrease as the length of pipe actually installed increases or decreases.

- Even though this combination of items is logical, it is imperative that the quantities for the structure excavation be calculated to a higher degree of accuracy than if the two items were separate.

- This higher accuracy of the structure excavation quantity is necessary because once the quantity is calculated for the planned length of pipe, that relationship of cubic foot of structure excavation per foot of pipe never changes. If the calculated structure excavation quantity is too high, the contracting agency is overpaying for the work actually performed. If the calculated structure excavation quantity is too low, the contractor is not being fairly compensated for the work performed. In either case, there is no way to make adjustments to the structure excavation.
- If there was a separate pay item for the structure excavation, and the quantity for the item was miscalculated, the contractor will be paid for the actual work performed, so the estimated quantity is a basis for the contractor's bid only.
- The structure excavation quantity will appear on the Structure Note sheet as "informational only" for each associated structure code.

700.09(1)(b) Example - Do not Combine Dissimilar Items

Do not combine clearing and grubbing with embankment compaction, even though the plan is to clear and grub only where the embankments are to be constructed. The two items are not closely associated with each other and therefore not combined. The quantity for either of these items could be increased or decreased without impacting the quantity of the other item and their costs could be vastly different.

- If the items above are combined under a cubic yard pay item, and during construction it is determined that additional slope flattening is necessary within the original clearing and grubbing limits, it would be difficult to determine and justify an increase. The difficulty lies in the fact that clearing and grubbing is generally around $6,000 per acre, whereas embankment compaction is around $2.00 per cubic yard. In this case, the contractor would be receiving a premium price for the additional embankment.
- If the items above are combined under a per acre pay item, and during construction it is determined that additional clearing, grubbing, and embankment compaction is necessary, again, it would be difficult to determine and justify an increase. The problem is, how is a square acre converted to a cubic measurement?

700.09(1)(c) Incorporating Combined Items

To maintain consistency in the combining of items statewide, consult the Region Plans Office or ASCE in advance of incorporating combined items into projects. In addition to consistency, this will provide a single office to monitor which items are routinely being combined and which item combinations work and which do not, allowing for responsible decisions in the future.

Note: Two items that cannot, by law, be combined with any other item of work are "Shoring or Extra Excavation Class A" and "Shoring or Extra Excavation Class B."

700.09(2) Equipment Acquisition Through Construction Contracts

The practice of WSDOT acquiring, through a construction contract, items that would normally be acquired or purchased through the equipment fund or IT contracts is only allowed with written approval from CPDM through the Assistant State Design Engineer.

Specific examples of these items are: survey equipment, computers and other IT equipment, vehicles, maintenance equipment, radios, workboats, and truck-mounted impact attenuators.

700.09(3) Geotechnical Project Documentation

(a) The Region Project Development Office or Terminal Engineering Department for WSF is responsible for notifying the HQ Geotechnical Office at least 12 to 14 weeks in advance of the Ad or Shelf Date, when the final project geotechnical documentation is due for each pertinent project.

(b) When a PS&E document is near completion, all of the available geotechnical design memoranda and reports are compiled to form the Final Geotechnical Project Documentation. The summary of geotechnical conditions and boring logs and associated data will be included as an appendices to the Special Provisions to be published for the use of prospective bidders.

(c) The Region Project Development Office or Terminal Engineering Department for the Washington State Ferries (WSF) will identify who has been designated to receive, handle, and continue the publication process of the report.

(d) It is desirable that the final geotechnical documentation be available for printing 10 weeks prior to the Ad or Shelf Date; however, it absolutely must be available no later than two Fridays prior to the Ad or Shelf Date.

(e) When transmitting the final project geotechnical documentation, the HQ Geotechnical Office will explicitly identify the geotechnical documentation as **final** and camera-ready. Likewise, the region materials section will concurrently send a camera-ready **final** copy of region-generated reports, to be included as part of the geotechnical documentation for the project.

(f) For Headquarters Ad and Award projects, when the region has received the report, the Region Project Development Office sends the complete package to the HQ Printing Services Office for final publication and to be made available to prospective bidders for purchasing. For WSF projects, the WSF Contracts/Legal Services Office is responsible for copying and making the report available to prospective bidders.

(g) The HQ Contract Ad and Award Office will issue a notice indicating the availability of the geotechnical documentation to bidders.

(h) In addition, some geotechnical information shall be included as part of the contract. It will generally consist of the final project boring logs and/or a Summary of Geotechnical Conditions when applicable. Both of these items are provided by the HQ Geotechnical Office.

700.09(4) Items a Designer "Might" Need

Avoid including items in the project that "might" be needed. This is particularly important for items such as borrow or excavation below grade, because the contractor bids, at a high price, the small quantity shown, and then finds a way to use a considerable quantity of the item on the project.

If it is unknown whether or not the item is required, it is best to leave it out of the project and let the Construction Office add the item by change order if necessary. History shows that this is the easiest, most cost-effective way of handling these items.

There may be times when it will be appropriate to include an item that might be needed. In these rare cases, it should be included as a force account item so the Engineer has complete control of the work.

700.09(5) Managed Access Highways and Construction Rights

For work on managed access highways outside of incorporated areas, refer to *Design Manual* 540.08(2)(b), "Department Construction Projects," for additional guidance. Reach out to your region access contact or the HQ Access and Hearings Manager prior to beginning your PS&E.

See: https://wsdot.wa.gov/business-wsdot/highway-access-requests-training

700.09(6) Paths and Trails

WSDOT tracks expenditures for pedestrian and bicycle facility improvements so this information can be reported to the Legislature and the public, per chapter 47.30 RCW. The information is also used to measure the performance of WSDOT's transportation system.

For WSDOT Design-Bid-Build projects: Include the paths and trails percentage in your 100% PS&E turn-in cover memo when submitted to the Region Plans Office. Also, send the percentage, and documentation for how the percentage was calculated, to region program management. Region program management will convey this information to CPDM for tracking. For projects with no paths and trails calculation, use 0%. Communicating 0% ensures the review of the paths and trails percentage occurred.

For WSDOT Design-Build projects: The paths and trails percentage shall be calculated by the Design-Builder and submitted with the Released for Construction (RFC) plans. This percentage will be provided to the WSDOT Engineer for submittal to CPDM. For projects with no paths and trails calculation, use 0%. Communicating 0% ensures the review of the paths and trails percentage occurred.

Please contact CPDM for guidance on reporting related to Paths and Trails when there is a WSDOT contribution on a project but is not the lead agency.

Paths and Trails Calculations

$$\left({}^{X}/_{Y}\right) \times 100 = P\&T\%$$

Where:

X = The summation of paths and trails-related items* (including mobilization, sales tax, engineering, and contingencies).

Y = The grand total of the project cost.

*Includes (but is not limited to) the items listed below.

Features that are specifically for pedestrian and/or bicycle facilities need to be included in the paths and trails calculations. Overlaying an existing shoulder with HMA or bituminous surface treatment (BST) does not constitute the need for paths and trails calculations. Widening of a shoulder(s) that is part of a larger roadway-widening project is not to be included in the paths and trails calculations, except as noted below.

The following are example types of work that are to be included in the paths and trails calculations. (See the *Design Manual* for definitions of terminology and additional information.)

- Shared-use path
- Structures (specifically for active transportation use)
- Sidewalk
- Bike lane

- New curb ramp (or replacement of curb ramps)
- Retrofitting curb or altering a curb ramp (simply replacing truncated domes would not be included)
- Curb extension
- Pedestrian refuge island
- Buffer strip (only a planter strip that is a minimum of 3 feet wide between the sidewalk and curb can be included)

Following MUTCD guidelines, signing and pavement markings associated with pedestrian and bicycle facilities may include:

- Crosswalks
- School crossings
- In-pavement flashing warning devices
- Preferential lane symbols and signing
- Pedestrian signals/detectors
- Bicycle-specific signals/detectors
- Pedestrian-scale lighting
- Bicycle facilities lighting

For these types of features, the paths and trails calculations shall include the entire cost to complete the work of each feature.

Constructing a dedicated bicycle or pedestrian facility is always preferable to widening shoulders, especially in urban or urbanizing areas. However, paths and trails calculations for bicycle and pedestrian facility improvements shall be calculated for roadway shoulders when all of the following conditions are met:

- The route is identified in a local, regional, or state plan as a bicycle connection.
- The existing shoulder is widened to at least the minimum widths outlined in the *Design Manual* for accommodating bicyclists and pedestrians.
- The paths and trails calculations for this shoulder-widening work shall be 50% of all the costs included to complete the shoulder widening.

700.09(7) Salvaged Materials

Salvaged materials are items that do not become the contractor's property when removed as part of the contract. This material is to be used in future projects. For federal-aid projects, salvage credits are governed by state procedures; however, they are subject to the requirements set forth by Buy America (see Section 700.01(7)). WSDOT procedure does not require a salvage credit on state-funded projects. Therefore, a salvage credit on a federal-aid-funded project is also not required.

In accordance with FHWA Contract Administration Core Curriculum guidance, WSDOT has established the following procedure on salvaged material.

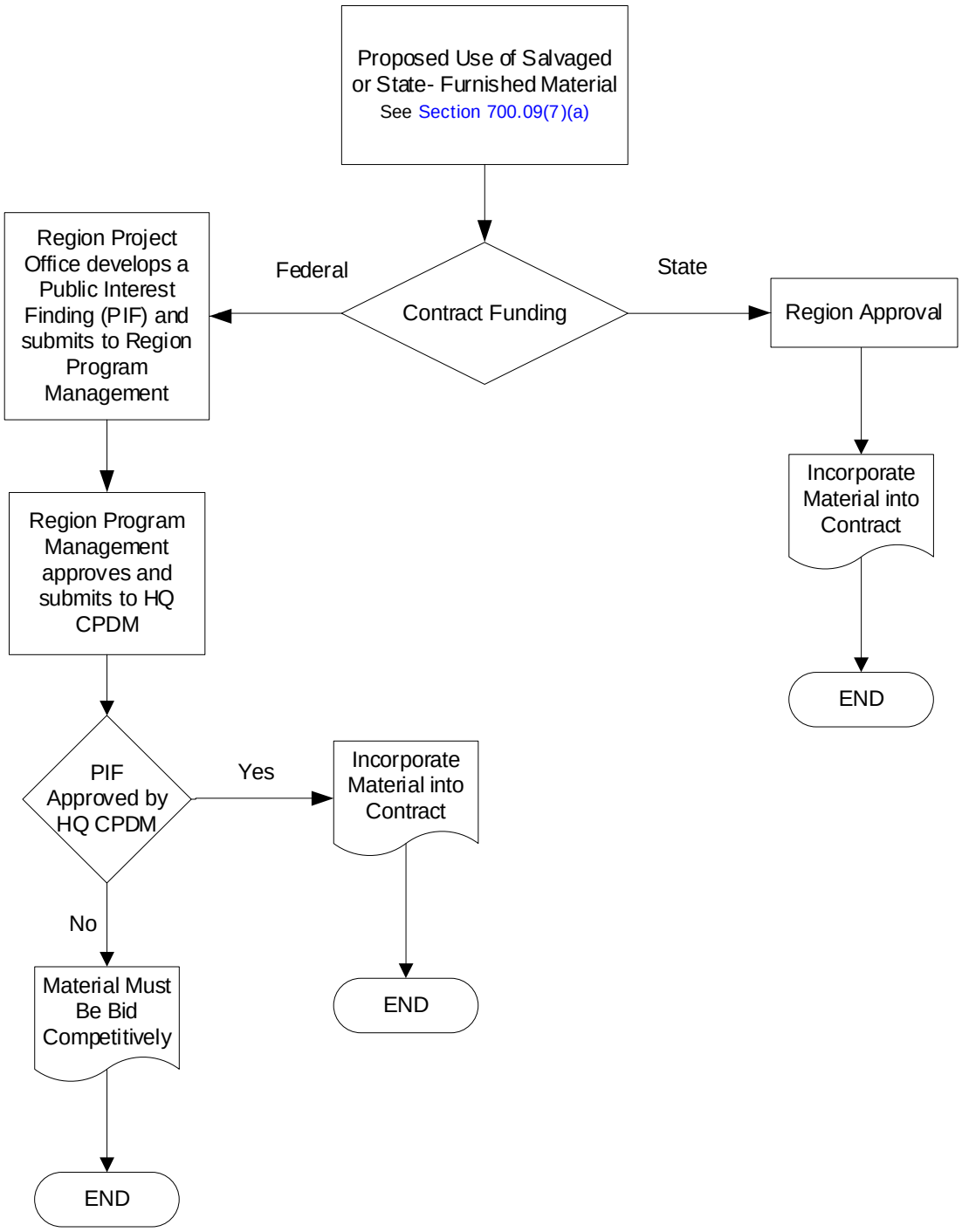
700.09(7)(a) Use of Salvaged or State-Furnished Material

The Use of Salvaged or State-Furnished Material flow chart (Exhibit 7-1) details the procedures to follow when these types of materials are proposed to be incorporated in a contract.

The use of material acquired in other than competitive bidding may be waived under specific conditions if it is found to be in the public's interest. On federally funded projects, a Public Interest Finding (PIF) is required to be approved by HQ CPDM. The PIF will consist of a written document outlining the basis for the request and supporting documentation such as cost/benefit analysis, discussion of compatibility, logistical concerns, etc. For details on what is required for a PIF, refer to 23 USC 112 and 23 CFR 635, and Appendix 8B of the *Program Management Manual* M 3005-01.

For state-funded projects, the use of salvaged or state-furnished materials must be approved by the Region Administrator or to the delegated regional authority.

Exhibit 7-1 Use of Salvaged or State-Furnished Material



Notes:

Refer to:

- 23 CFR 635.407, Use of Materials Made Available by Public Agency
- Appendix 8B, *Program Management Manual*, M 3005.01

700.09(8) Specialing Out Right of Way Parcels

It may be necessary to identify right of way parcels that are unavailable to the contractor for construction at the time the contract is awarded by "specialing" such parcels out.

The Special Provisions shall be specific regarding the location of these parcels and the estimated dates of availability to the contractor. Region Real Estate Services can provide a reasonable availability date to go in the Special Provisions. There is no problem if the property becomes available early. The contract may be impacted if the property is not available by the date stated in the contract.

Right of way parcels that are "specialed out" must also be indicated on the Right of Way or Alignment/Right of Way Plans by drawing in the appropriate property lines and by cross-hachuring the parcels. The plans shall indicate that the cross-hachured parcels are unavailable with a note referencing the Special Provisions.

When right of way is specialed out, the order of work has to be examined to ensure the project sequencing is not adversely affected by portions of right of way not available for immediate use.

700.09(9) Standard Items

The Standard Bid Item Table is a complete list of items tracked by UBA and includes Standard Items, GSP items, and items requiring a special Provision. Refer to the Item Use Column within the table. When a standard item exists, it should be used.

Standard items are those items that appear in the payment statements in the *Standard Specifications*. Many of these payment statements, like the following, are written with blanks:

- "HMA for Preleveling Cl. ____ PG ____," per ton.
- "Catch Basin Type ____," per each.
- "Manhole Additional Height ____ In. Diam. Type ____," per foot.

If the blanks are filled in with the expected information and the information in the *Standard Specifications* applies, they are standard items even though they may be a size, type, or class not shown in the Standard Bid Item Table.

Minor revisions that have little or no impact on the cost can be made to the material or construction requirements in the *Standard Specifications*, and they can remain standard items. Care must be taken, however, not to mislead the contractor by making major revisions that could substantially affect the cost of the item and calling it the standard item. In these cases, it is best to develop a nonstandard item. Nonstandard bid items require a project specific provision approved by the ASCEs.

700.09(9)(a) Disputes Review Board

Include the standard bid item Disputes Review Board in projects with an estimated construction cost of $10 million or greater. For projects under $10 million, the use of the item is encouraged, but it is not mandatory.

700.09(10) State Force Work or State-Furnished Materials

The State Force Work referenced is any and all state force labor, state-furnished materials, and/or state-furnished equipment to be paid utilizing construction dollars, unless specifically excluded as mentioned below (see Exhibit 7-2).

Provide written justification for all state-furnished materials and all State Force Work to be

performed on all projects, in accordance with RCW 47.28.030 and RCW 47.28.035.

700.09(10)(a) RCW 47.28.030

As of 2015, the complete RCW reads as follows:

RCW 47.28.030 Contracts—State forces—Monetary limits—Small businesses, veteran, minority, and women contractors—Rules—Work on ferry vessels and terminals, ferry vessel program.

(1)(a) A state highway shall be constructed, altered, repaired, or improved, and improvements located on property acquired for right-of-way purposes may be repaired or renovated pending the use of such right-of-way for highway purposes, by contract or state forces. The work or portions thereof may be done by state forces when the estimated costs thereof are less than fifty thousand dollars and effective July 1, 2005, sixty thousand dollars.

(b) When delay of performance of such work would jeopardize a state highway or constitute a danger to the traveling public, the work may be done by state forces when the estimated cost thereof is less than eighty thousand dollars and effective July 1, 2005, one hundred thousand dollars.

(c) When the department of transportation determines to do the work by state forces, it shall enter a statement upon its records to that effect, stating the reasons therefor.

(d) To enable a larger number of small businesses and veteran, minority, and women contractors to effectively compete for department of transportation contracts, the department may adopt rules providing for bids and award of contracts for the performance of work, or furnishing equipment, materials, supplies, or operating services whenever any work is to be performed and the engineer's estimate indicates the cost of the work would not exceed eighty thousand dollars and effective July 1, 2005, one hundred thousand dollars.

(2) The rules adopted under this section:

(a) Shall provide for competitive bids to the extent that competitive sources are available except when delay of performance would jeopardize life or property or inconvenience the traveling public; and

(b) Need not require the furnishing of a bid deposit nor a performance bond, but if a performance bond is not required then progress payments to the contractor may be required to be made based on submittal of paid invoices to substantiate proof that disbursements have been made to laborers, material suppliers, mechanics, and subcontractors from the previous partial payment; and

(c) May establish prequalification standards and procedures as an alternative to those set forth in RCW 47.28.070, but the prequalification standards and procedures under RCW 47.28.070 shall always be sufficient.

(3) The department of transportation shall comply with such goals and rules as may be adopted by the office of minority and women's business enterprises to implement chapter 39.19 RCW with respect to contracts entered into under this chapter. The department may adopt such rules as may be necessary to comply with the rules adopted by the office of minority and women's business enterprises under chapter 39.19 RCW.

(4)(a) Work for less than one hundred thousand dollars may be performed on ferry vessels and terminals by state forces.

(b) When the estimated cost of work to be performed on ferry vessels and terminals is between

one hundred thousand dollars and two hundred thousand dollars, the department shall contact, by mail or electronic mail, contractors that appear on the department's small works roster as created pursuant to procedures in chapter 39.04 RCW to do specific work the contractors are qualified to do to determine if any contractor is interested and capable of doing the work. If there is a response of interest within seventy-two hours, the small works roster procedures commence. If no qualified contractors respond with interest and availability to do the work, the department may use its regular contracting procedures. If the secretary determines that the work to be completed is an emergency, procedures governing emergencies apply.

(c) The department shall hire a disinterested, third party to conduct an independent analysis to identify methods of reducing out-of-service times for vessel maintenance, preservation, and improvement projects. The analysis must include options that consider consolidating work while vessels are at shipyards by having state forces perform services traditionally performed at Eagle Harbor at the shipyard and decreasing the allowable time at shipyards. The analysis must also compare the out-of-service vessel times of performing services by state forces versus contracting out those services which in turn must be used to form a recommendation as to what the threshold of work performed on ferry vessels and terminals by state forces should be. This analysis must be presented to the transportation committees of the senate and house of representatives by December 1, 2010.

(d) The department shall develop a proposed ferry vessel maintenance, preservation, and improvement program and present it to the transportation committees of the senate and house of representatives by December 1, 2010. The proposed program must:

(i) Improve the basis for budgeting vessel maintenance, preservation, and improvement costs and for projecting those costs into a sixteen-year financial plan;

(ii) Limit the amount of planned out-of-service time to the greatest extent possible, including options associated with department staff as well as commercial shipyards; and

(iii) Be based on the service plan in the capital plan, recognizing that vessel preservation and improvement needs may vary by route.

(e) In developing the proposed ferry vessel maintenance, preservation, and improvement program, the department shall consider the following, related to reducing vessel out-of-service time:

(i) The costs compared to benefits of Eagle Harbor repair and maintenance facility operations options to include staffing costs and benefits in terms of reduced out-of-service time;

(ii) The maintenance requirements for on-vessel staff, including the benefits of a systemwide standard;

(iii) The costs compared to benefits of staff performing preservation or maintenance work, or both, while the vessel is underway, tied up between sailings, or not deployed;

(iv) A review of the department's vessel maintenance, preservation, and improvement program contracting process and contractual requirements;

(v) The costs compared to benefits of allowing for increased costs associated with expedited delivery;

(vi) A method for comparing the anticipated out-of-service time of proposed projects and other projects planned during the same construction period;

(vii) Coordination with required United States coast guard dry dockings;

(viii) A method for comparing how proposed projects relate to the service requirements of the route on which the vessel normally operates; and

(ix) A method for evaluating the ongoing maintenance and preservation costs associated with proposed improvement projects.

[2015 c 282 § 1; 2014 c 222 § 701; 2011 c 367 § 710. Prior: 2010 c 283 § 9; 2010 c 5 § 11; 2007 c 218 § 90; 1999 c 15 § 1; 1984 c 194 § 1; 1983 c 120 § 15; 1977 ex.s. c 225 § 3; 1973 c 116 § 1; 1971 ex.s. c 78 § 1; 1969 ex.s. c 180 § 2; 1967 ex.s. c 145 § 40; 1961 c 233 § 1; 1961 c 13 § 47.28.030; prior: 1953 c 29 § 1; 1949 c 70 § 1, part; 1943 c 132 § 1, part; 1937 c 53 § 41, part; Rem. Supp. 1949 § 6400-41, part.]

NOTES:

Effective date—2015 c 282: "This act is necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and takes effect July 1, 2015." [2015 c 282 § 2.]

Contingent effective date—2014 c 222 § 701: "Section 701 of this act takes effect if *chapter . . . (Engrossed House Bill No. 2684), Laws of 2014 (ferry vessel and terminal work) is not enacted by April 15, 2014." [2014 c 222 § 802.]

***Reviser's note:** Engrossed House Bill No. 2684 was not enacted by April 15, 2014.

Effective date—2014 c 222: "This act is necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and takes effect immediately [April 4, 2014]." [2014 c 222 § 804.]

Effective date—2011 c 367: See note following RCW 47.29.170.

Findings—Intent—Effective date—2010 c 283: See notes following RCW 47.60.355.

Purpose—Construction—2010 c 5: See notes following RCW 43.60A.010.

Intent—Finding—2007 c 218: See note following RCW 1.08.130.

Effective date—Applicability—Severability—Conflict with federal requirements—1983 c 120: See RCW 39.19.910 and 39.19.920.

Office of minority and women's business enterprises: Chapter 39.19 RCW.

700.09(10)(b) RCW 47.28.035

The complete RCW reads as follows:

> Cost of project, defined.
>
> The cost of any project for the purposes of RCW 47.28.030 shall be the aggregate of all amounts to be paid for labor, material, and equipment on one continuous or interrelated project where work is to be performed simultaneously. The department shall not permit the construction of any project by state forces by dividing a project into units of work or classes of work to give the appearance of compliance with RCW 47.28.030.
>
> [1984 c 194 § 2.]

700.09(10)(c) Justifications

If the project is new/reconstruction on the Interstate, the justification for state-furnished materials and for State Force Work requires FHWA approval.

RCW 47.28.030 requires that WSDOT have documentation on file for all State Force Work/ Furnished Materials. The justification and estimate for work to be done by state forces and state-furnished materials is to be processed per region policy in sufficient time to allow for review and approval prior to advertising of the project. When FHWA approval is required, the justification must also include a request for federal funding participation. Also, it must be reported to the Headquarters Office of Capital Program Development and Management when State Force Work is performed on federal-aid projects.

The justification for both state-furnished materials and State Force Work must show that it is economically cost-effective to provide the materials or to perform the work with state forces. It does not matter how or when the state-furnished material was purchased or whether it was purchased through competitive bidding or not, the cost of the state-furnished material is to be incorporated into the State Force Work/Furnished Materials total costs, and the limitations per RCW 47.28.030 apply. Once an item is purchased and furnished to another contract, that item becomes state-furnished material. Refer to Exhibit 7-2 and the *EBASE Users Guide* for guidelines when engineering and contingencies are used (when other state agencies do the State Force Work) or when engineering and contingencies are not used (when WSDOT state forces do the work) in regard to State Force Work and for state-furnished materials.

As of July 1, 2005, the maximum total dollar value of work done by state forces per construction project, including labor, materials, and equipment, is $60,000 or up to $100,000 if it is an emergency, as stated in RCW 47.28.030. An increase in the dollar amounts in the RCW must go before the Legislature; currently, there are no additional increases built into the law.

700.09(10)(d) Blanket Approval Items

There are a few items of work that have received a blanket approval to be performed by state forces and receive FHWA funding participation. They are: striping, pavement marking, second-stage fertilizing, and one-way piloted traffic control. With blanket approval items, WSDOT must still have documentation on file, and the dollar limitations also apply to this work.

700.09(10)(e) Exceptions

When the state provides materials and/or equipment and there is NO state labor performed by state forces on the project, the dollar limitation per RCW 47.28.030 does not apply. For example, if WSDOT provides a $90,000 sign bridge, as long as there is **no** state force labor, this dollar amount can be approved. If there is **any** state force labor (even for unrelated work such

as removal of silt fence) on the project that is going to be a below-the-line item, then the aggregate total of materials and labor would exceed the $60,000 per RCW 47.28.030 and therefore cannot be approved.

Work performed off the state roadway right of way may not be subject to RCW 47.28.030; therefore, no limit on state-furnished materials or state force labor would apply. If work is done outside the WSDOT transportation corridor (state right of way, fence line to fence line), and state force thresholds in RCW 47.28 do not apply (as with wetland mitigation sites, sundry sites, and other capital facilities), then RCW 39.04 applies. This applies only to those areas outside of and unattached to existing state highway right of way.

Work that is **not** to be considered State Force Work includes: inspection of any type; materials testing; surveying; monitoring; public relations work; or any kind of investigation or research. If state forces do these types of work, they are to be included in the engineering and contingencies. If the cost of this work is substantial, it can be used as justification to increase the engineering and contingency percentage to offset the costs.

- Inspection is defined as work performed to ensure material or contractor installations meet the specifications outlined in the contract **after** the contract has been awarded. Inspection **does not** include work performed to correct the deficiency or failure to meet specifications.
- Surveying is part of the inspection requirements. It shall be considered as construction engineering and is not subject to state force thresholds.
- Material testing is defined as work performed prior to contract award, or prior to the material being delivered to the contractor, to ensure the material meets the specifications outlined in the contract. Material testing includes diagnostic testing and/or modifications to the material or equipment to ensure compatibility and interoperability with the existing infrastructure. For example, when electronic equipment is procured, materials testing would include assembling the equipment into a system and modifying software or hardware components as necessary to ensure the system operates as specified and is compatible with existing electronic equipment and/or software (see Exhibit 7-2, State Force Work/Materials).

700.09(10)(f) Questions Asked by WSDOT and Answered by the Attorney General's Office (AGO)

1. **WSDOT:** If work is not related, but on the same project, does the RCW limit apply to each unrelated item of State Force Work or is all the unrelated State Force Work added together for the aggregate total for the project?

   AGO: All State Force Work activities (labor, equipment, and materials), related or not, are included in the aggregate total and are subject to state force thresholds.

2. **WSDOT:** Has the Legislature looked at the excessive increase in costs and considered raising the dollar limitation in the RCW accordingly?

   AGO: In 1999 the Legislature was approached about raising the limit for State Force Work to $250,000. Under this request, the limit was raised by $10,000 only, with a few step raises in the RCW in later years. The state Legislature would prefer work to be contracted out and the dollar limit on State Force Work kept low.

3. **WSDOT:** How does the RCW apply to contractually purchased materials used by state maintenance labor and equipment—for example, on BST projects where the aggregate is purchased through contract and stockpiled, State Force Work is requested for the labor and equipment to place the BST, and the labor and equipment is less than the dollar limitation?

AGO: If Maintenance purchases materials (such as crushed rock), regardless of whether this material is purchase through a competitive bidding process or not, it is considered to be from a supplier and is not considered a WSDOT construction contract. Therefore, the material is included in the aggregate total of labor, equipment, and materials and is subject to state force cost thresholds.

4. **WSDOT:** What determines a contractor versus a supplier? If we have a competitively bid contract for rock chips for chip seal jobs that we can use whenever we need to in a one-year or two-year period, is this a contractor or a supplier?

   AGO: A supplier.

5. **WSDOT:** If there is no state labor, does the RCW dollar limit apply?

   AGO: If there is no state labor in the project and only state-furnished materials are being purchased, the dollar limitation per RCW 47.28.030 does not apply. If there is any State Force Work labor on the project, whether or not it is relevant to the materials acquisition, then the RCW 47.28.030 dollar limitations apply to the aggregate total.

6. **WSDOT:** If there are overruns during State Force Work on labor, material, or equipment costs that are covered under the State Force Work request and that exceed the RCW dollar limitation, is this a violation of the law? Should this be documented and, if so, how?

   AGO: A good faith effort is required to justify and document the state force request during the project development phase. If, during construction, the actual costs exceed the estimated costs, this is considered an incremental increase. If this happens on a consistent basis, the original estimate will not be considered a good faith effort and the law has not been followed.

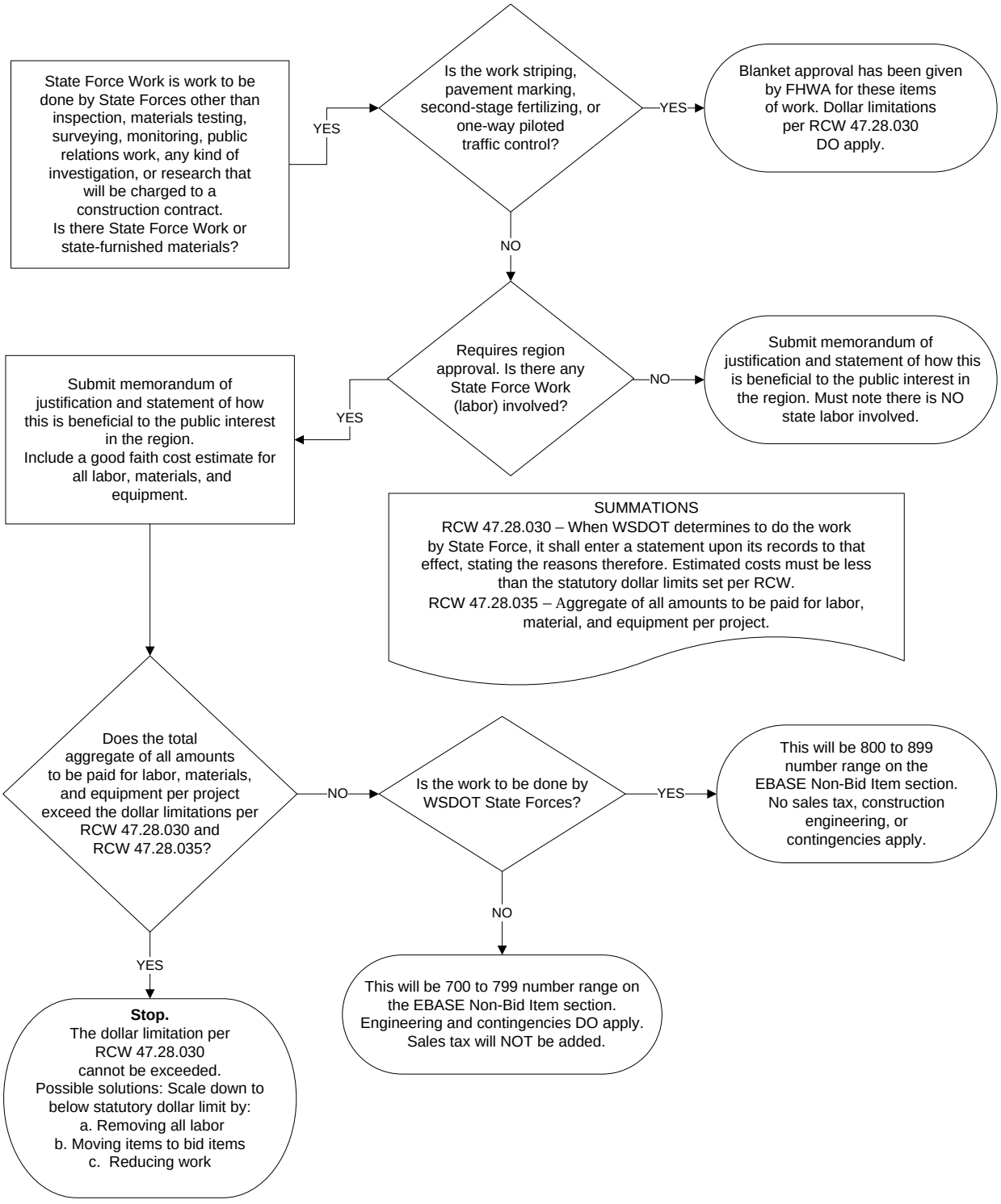
7. **WSDOT:** Who has the authority to authorize State Force Work in excess of the monetary limit set in RCW 47.28?

   AGO: No one outside the Legislature has the authority to approve State Force Work in excess of the monetary limit set in RCW 47.28.030. Exceeding the RCW is a violation of the law. **The law would have to be changed by the Legislature to increase the monetary limit in RCW 47.28**.

8. **WSDOT:** When does State Force Work have to be documented and kept on file?

   AGO: Per the law, all State Force Work must have documentation on file justifying the work. RCW 47.28.030 states, “When the department of transportation determines to do the work by state forces, it shall enter a statement upon its records to that effect, stating the reasons therefore” (see Exhibit 7-2, State Force Work/Materials).

Exhibit 7-2 State Force Work/Materials



700.09(11) Strip Maps

Strip maps may be used on projects when a great deal of detail is not required, such as overlays, fog seal, BST, stockpiling, signing, safety, and similar projects.

Many times a strip map can be used for a series of plans within a set of plans, such as for the signing series, if the signing is simple destination-type signing and requires no real detail. In most cases, by simply showing the construction centerline with stationing and the required signing information, it is possible to stack the information on the sheet such that twice the information can be displayed on each sheet. Keep in mind that most of the information shown on strip maps is not really alignment-dependent; that is, a curve in the highway is not going to affect the showing of a sign at the correct station, so the centerline can appear as a straight line on the strip map.

The use of strip maps when feasible is not only an option, but is also a recommended procedure to help reduce the total number of plan sheets in the project.

The use of photographic strip maps is allowed if the work can be shown adequately and if a clear copy can be ensured.

700.09(12) Truck Measurement of Earthwork Quantities

Truck measurement can be utilized on projects with 5,000 cubic yards or less of embankment to be constructed or when the project consists of numerous small embankment areas where cross-sectioning is not practical.

700.09(13) Truck Weigh Sites

The components of a truck weigh station for which federal funds can be used are:

- Additional right of way.
- The construction of access lanes and vehicle standing and storage areas.
- The illumination of access lanes and vehicle standing and storage areas.

The construction of the scale house and its service facilities, scale pit, and scale are not eligible for federal-aid participation.

For additional information on truck weigh sites, see the *Design Manual*.

700.09(14) Warranties and Guarantees

WSDOT may choose to include warranty clauses in federal-aid highway construction contracts as specified in Code of Federal Regulations (CFR), Title 23, Volume 1 (revised April 1, 2001), Part 635, under Subpart D – General Material Requirements Section 635.413, Guaranty and warranty clauses. An excerpt from the CFR text reads as follows:

> The State DOT may include warranty provisions in National Highway System (NHS) construction contracts in accordance with the following:
> (a) Warranty provisions shall be for a specific construction product or feature. Items of maintenance not eligible for Federal participation shall not be covered.
> (b) All warranty requirements and subsequent revisions shall be submitted to the Division Administrator for advance approval.
> (c) No warranty requirement shall be approved which, in the judgment of the Division Administrator, may place an undue obligation on the contractor for items over which

the contractor has no control.

(d) A State DOT may follow its own procedures regarding the inclusion of warranty provisions in non-NHS Federal-aid contracts.

There may be occasions when the regions have the need to include warranty and/or guarantee clauses in state-funded contracts. The region will notify the Construction Materials Engineer at the HQ Materials Laboratory and request concurrence with the specification prior to including the Special Provision in the contract documents.

The contractor is required to pass along to WSDOT all manufacturers' normal guarantees and warranties for products and equipment installed on the project.

700.09(15) Washington State Patrol Work Zone Enforcement and Assistance

If Washington State Patrol (WSP) use is warranted on a project, include an estimated dollar amount in the project estimate as a below-the-line item. If WSP assistance is to be used as a required element of the traffic control plans, it should be identified on the plans and provided as a resource to the contractor with a General Special Provision.

Refer to the *Traffic Manual,* Section 5-19, for more information on when and how to include WSP in a project.