Section 2:

General Instructions

SECTION 2 – GENERAL INSTRUCTIONS

2.1 CONSTRUCTION INSTRUCTIONS

These instructions are intended to assist in the interpretation of the contract documents. These instructions do not supersede or amend the contract documents and hold no contractual obligation on the Contractor. These instructions are intended as requirements for Department personnel under most circumstances encountered during a contract. When the instructions do not accommodate a specific issue or are not followed in a particular instance, the reason for deviating from the instructions should be clearly documented so those who may review or audit the project records can understand the reason for the deviation.

Updating the GIFE is an ongoing process. Sometimes additional or revised instructions will be issued by means of Construction Memorandums. Such memoranda will become as binding on the project personnel as these instructions. A full listing of current Construction Memorandums is available on the Department's website.

These instructions are intended to cover the construction features of the work that have created problems in the past as well as the preparation of forms, reports and records pertaining to the progress of work performed.

All questions related to matters pertaining to field construction, such as alignment, grade or structure changes, interpretations of the specifications, matters pertaining to materials and tests etc., should initially be addressed with the AE.

2.2 CONTRACT

A copy of the CIB will be furnished to the PEMS. The CIB will include a proposal page and the Schedule of Pay Items for the contract. In addition, the CIB may also include plan sheets, RPDs, RSPs, and USPs. Additional information about permits, asbestos investigations, etc. may also be included. It is essential that the CIB be reviewed so that the correct specifications will be used. The PEMS should also be familiar with the hierarchy of contract documents as shown in section 105.04.

The contract may be adjusted as necessary and as approved by the use of a change order.

A set of construction plans must be marked in red as work progresses to show all changes that have been made during construction. These plans are to be labeled "As Built" and are to be submitted to the DO with the FCR.

In general, "As Built" plans are to be produced by the PEMS unless an RSP or USP requires the Contractor to prepare the plans. If this is the case, final payment of the contract will not be made until the "As Built" plans have been submitted to the PEMS.

2.3 INITIAL DUTIES OF THE DISTRICT

The DO will notify all utilities, governmental units, railroads, and any other organization utilizing the ROW, of the planned construction and invite them to the pre-construction conference.

When the contract is let, the DCD will draft a letter to the County Surveyor of the county or counties in which the contract is located. The letter will request the county official to advise the DO, in writing, of the locations of any established corners and legal drains that fall within the limits of the contract. Transmitted with the letter should be a strip map showing the locations of the project (similar to the detail on the title sheet of the plans). This letter should quote the following from IC 8-23-9-24:

> "If in the construction or maintenance of a state highway it is necessary to remove or bury a monument marking or evidencing an established corner, the department shall cause to be set in the pavement or right-of-way at the place where the monument was located a monument capable of activating a metal detection device. The top of the monument must be level with the pavement or the grade of the right-of-way. The department shall cause a memorandum of the monument to be filed in the county surveyor's office of the county."

The law requires the construction of a monument wherever it is necessary to remove or bury an established corner. An established corner has been interpreted to mean any land section, 1/2 section corner, etc., or any property corner, provided such corner has been officially established by a person authorized by law. In general, only a County Surveyor or a professional land surveyor has authority to officially establish corners.

2.4 PRE-CONSTRUCTION CONFERENCE

A pre-construction conference must be set-up with the contractor for a date prior to the beginning of the first work. The time and place for the meeting should be sent to all parties, on whose part action will be required in the construction of the work. This should be far enough in advance for them to arrange their representation. The Department's website provides an agenda of topics for the pre-construction conference that should be used on typical contracts. Items may be added and deleted as necessary to address the issues on any individual contract.

A link to the complete check list for the pre-construction conference agenda items can be found at: https://erms12c.indot.in.gov/fcrdocuments/ under FCR Documents.

The following entities should be notified of the pre-construction conference:

1. Contractor
2. District Construction
3. CO and District Design
4. Designer (if applicable)
5. Project Manager
6. Division of Construction Management
7. CO and District Utility Section
8. All involved utilities
9. CO and District Environmental Services
10. Permit Agencies (e.g. IDEM, USACE, IDNR when applicable)

11. District Materials and Tests
12. District Public Information
13. District Operations
14. District Safety.

For some of the above, the notice will be largely informational, allowing them to select the pre-construction conferences at which they wish to be represented. The following parties must also be notified when they have involvement in the project:

Local officials should be invited to INDOT pre-construction conferences if work will have an impact on their community.

1. FHWA (if not exempt from FHWA oversight)
2. County officials
3. Municipal officials
4. Designer
5. District Local Programs Coordinator
6. District Environmental Scientist
7. Railroads
8. Affected industries.

On contracts where the pre-construction conference may be lengthy and the attendance large, the meeting should be scheduled so matters of interest mainly to the State and Contractor may be discussed after other representatives have addressed their concerns for the project and have been given the opportunity to leave the meeting.

At the pre-construction conference, lines of authority for all parties involved in the work should be clearly defined and determinations made as to notifications in emergencies. The Contractor should be advised as to the authority of the PEMS on the contract, compliance with specifications, and that cooperation will be expected. The Contractor must be prepared to submit the required contract schedule at the meeting. An effort should be made at this time to coordinate the Contractor's schedule with utility schedules, permit schedule restrictions, and with the interests of others affected by the construction. All problems cannot be resolved or even anticipated at the pre-construction conference but known problems should be recorded at this time so that progress towards early solutions can begin.

On Federal aid projects, the contract EEO requirements should be discussed. Attention should be directed to the required posters, equal opportunity employment practices, payroll requirements, including the three-year preservation clause, and that subcontractors and temporary plant operations are governed by the same regulations as the prime contractor. On State funded projects, the discussion of MBE, WBE, and IVOSB requirements for the project must take place.

The Contractor shall be responsible for electronically submitting certified payrolls for their employees and any subcontractors to the PEMS on a weekly basis. The filing shall utilize the Department's CPMS application. Failure of the Contractor to submit a payroll in a timely manner

may result in the withholding of progress estimates until the certified payroll is properly submitted.

Environmental concerns should also be discussed at the pre-construction conference. INDOT Environmental Services has developed a checklist for use by the District and PEMS. The checklist is included for informational purposes and is located in 2.5.1. It is primarily the responsibility of the PEMS to ensure that the Contractor has properly implemented and maintained the stormwater management plan and other requirements of all waterway permits acquired. The PEMS should consider utilizing stormwater specialists and environmental managers within the District or INDOT Environmental Services at Central Office for additional information on proper placement, implementation, and maintenance of stormwater management features if questions arise. Reference should also be made to 3.1.

If there are any questions or difficulties in the identification of such features for specific projects, Construction Management should be contacted in advance of the pre-construction conference.

Minutes of the pre-conference must be kept and copies provided to all those in attendance within three business days. Minutes must be included as an attachment to AWP.

2.5 INITIAL DUTIES OF THE PEMS

Listed below are some of the first duties of a PEMS upon being assigned to a project.

(a) Before entering upon any property, check to see if the ROW has been secured and the Department has a right of entry. The special provisions of the contract should state this information. ROW has not been secured for any parcel, instruct the Contractor and assigned project personnel not to enter the parcel.

(b) Determine from the plans whether or not a detour will be required during the construction of the contract. If it is required, check the plans against the standards to ensure that all required route markers, signs, and barricades will be correct and in place before traffic is detoured.

(c) If construction engineering is not a part of the contract, run the centerline and set the grade stakes, as specified under Section 3.4 Staking and Construction Engineering of these instructions, as soon as possible after assignment to the project. This is necessary in order to allow the property owners, utilities, etc., as long a time as possible to move their fences, buildings, pole lines, etc. If the contract has not been awarded, stakes can be secured from the DO, a count being kept of the number of each size obtained so that the Contractor can “repay” with like number and kind during the life of the contract, as the Contractor is required to furnish all necessary stakes.

(d) Approximately ten days before the monuments are to be set, the County Surveyor is to be contacted by the PEMS and given the opportunity to be present during placement or to check the monument shortly thereafter. The PEMS should document on the daily report any details in regard to monuments and with respect to contacts made with the County Surveyor.

The preservation of corners is vital. Failure to take care of this feature of the work is unacceptable.

(e) Start early to locate all farm drain tiles as this is a slow process and requires perseverance. Contact all property owners and enlist their help in locating farm drain tile on their property.

(f) Work with the AE to see if there are any utility or railroad agreements pertaining to the project. Keep in close contact with the utilities and railroads so they can be kept up to date of construction progress and plans and stay in coordination with the Contractor's work.

(g) Note any mailboxes that will need to be replaced either permanently or temporarily due to the project.

(h) It is essential that the Contractor provide a suitable office for the PEMS as soon as possible. The PEMS should review the proposed office location for safety, security, parking, and accessibility prior to approval. The office size should also be reviewed for compliance with contract provisions.

(i) Other State and Federal agencies have areas of concern that fall within contract limits. This is particularly true where rivers, streams, wetlands, ponds, lakes, floodplains, or other drainage features are concerned. By law, these agencies have extensive permit and approval powers over construction wherein hydraulics, the environment, or ecology is concerned. In many cases, when designers prepare plans for a contract, they included features necessary to secure such permits or agreements. For this reason, it is vital that construction of the contract be accomplished in accordance with the plans. IDEM permits, USACE permits, and IDNR permits are available on the Department's website to ensure that contract staff are aware of special environmental requirements. The PEMS should review all preliminary engineering reports and environmental documents prior to the pre-construction conference. The PEMS should also be familiar with and utilize the Department's Stormwater Management Field Guide and IDEM's Storm Water Quality Manual. In the event the plans have not addressed any conditions of those special documents or if field conditions appear to

have not been properly addressed regarding environmental concerns, the PEMS should contact the AE for guidance on making any necessary changes. The District Stormwater Specialist, District Environmental Scientist, the Division of Construction Management, and the Environmental Services Section can also provide assistance. Changes to the contract work that may violate the environmental requirements are not permitted without submittal and review by INDOT Environmental Services and approval from the appropriate authorities.

(j) The Contractor shall prepare a Materials Source List for the contract. It shall be submitted at the pre-construction conference.

(k) On all contracts involving Federal participation, specific forms are required to be placed and maintained on an all-weather bulletin board. The FHWA website at: https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm identifies these forms.

All the forms, except the Contractor's EEO Policy, will be available from the DO for contract distribution. The Minimum Wage Determination document will be referenced within the CIB. It is the DO EEO's responsibility to see that the Contractor is adequately supplied with the required forms and that copies of each, plus the Contractor's EEO Policy, are properly posted, by the Contractor, in a conspicuous location on the contract.

(l) The PEMS shall prepare Form IC-662, Report of Crop Damage, when a crop is actually destroyed. This report should be prepared and submitted as soon as practical after a crop has been damaged and it should show sufficient dimensions to compute an exact acreage.

(m) If an accident occurs on a contract, the PEMS will contact the police agency involved to obtain an accident report.

(n) Accident reports need to be reviewed to determine if recurring problems require changes to the current traffic control plan. The accident reports should be scanned and included with the daily report for the date of the accident.

(o) The Contractor must identify and submit for approval the location of all borrow and waste disposal sites. The PEMS must review the submittal for compliance with the specifications. Form IC-203, Request for Acceptance of Borrow or Disposal Site, is available on the Department's website and must be completed by the Contractor for each proposed site. The PEMS must review and sign the form if

approved. Questions about borrow or disposal sites should be directed to the AE.

2.5.1 PEMS Environmental Services Permit(s) Checklist

The checklist has been developed to help support project delivery and keep the project in compliance with environmental requirements.

Before PRE-CONSTRUCTION CONFERENCE

PEMS initial permit review

1. Locate project specific permits and commitments online.
2. Print or download and store permits and review conditions that must be followed during construction.
3. Note on the plans any identified waterways or areas of special concern and areas with commitments.
4. Note the name of permit applicant (INDOT or LPA for non-INDOT projects) and contact number or email.
5. Contact the permit applicant (INDOT or LPA) with any questions/concerns or proposed revisions to the permits.
6. Discuss any questions or concerns with the District Stormwater Specialist.

During PRE-CONSTRUCTION CONFERENCE

Discuss expectations for permit compliance including:

1. Permits and commitments with the Contractor and document any conflicts with the plans or the contract.
2. Compliance with all permit conditions is required during construction.
3. Offsite movement of sediment violates multiple waterway permit conditions.
4. Permitting procedures for offsite borrow and waste areas; because these are off the ROW, local requirements need to be followed by the Contractor.

Discuss issues related to permit modifications/waivers that may be needed including:

1. Communicate any modification/waiver needs to the permit applicant. All modification requests must be made through ES for INDOT contracts. Potential Contractor permit modifications/waivers may include temporary impacts (stream crossings, causeways, pump-arounds), waivers (fish spawning, Indiana Bat tree clearing restrictions), additional temporary or permanent impacts inside or outside of the construction limits, IDEM Notice of Intent (NOI) amendment, etc.
2. Sequencing project construction phasing with the SWQCP.
3. Documentation and notification requirements of changes in the SWQCP.

4. Allowing time for processing by ES and regulatory agencies. This process may take several weeks or longer.

Discuss utility companies' responsibilities for environmental compliance and permitting impacts related to their work.

During CONSTRUCTION

Contractor's Initial operations (clearing/demolition)

1. Post all permits on the bulletin board prior to the start of construction.
2. Install perimeter control measures prior to land disturbing activities.
3. Install any needed temporary stormwater management measures for clearing/demolition.

Contract Permit impacts

1. Understand the contract permit conditions and the permitted stream/wetland/pond/lake/floodplain/habitat impacts. ES should be contacted for permit questions.
2. If conditions indicate work will overstep the contract permit requirements and permit modifications are necessary, the PEMS must contact ES.
3. PEMS should spot check off-site borrow/disposal areas for permit compliance.
4. WHEN REQUIRED, comply with Indiana Bat tree clearing restrictions (no clearing April 1 - September 30).
5. WHEN REQUIRED, comply with fish spawning season restrictions (no in-stream work April 1 - June 30).
6. Direct questions/concerns during construction to permit the applicant (INDOT or LPA).

Storm Water Management

1. Perimeter control measures should be in place prior to land-disturbing activities.
2. Focus should be on erosion control measures first (these measures are less expensive and more efficient); sediment control measures should be a secondary focus (these measures are more expensive to install and are less efficient).
3. PEMS should spot check weekly/rain event inspections reports provided by Contractor for accuracy.
4. Properly track slopes in accordance with 203.09 of the SS.
5. Ensure the stormwater management measures used are correctly installed and maintained in accordance with the SS and Standard Drawings.
6. Modify the SWQCP as needed to meet field conditions, and, if needed, consult District Stormwater Specialist or Central Office Environmental Services Stormwater team for assistance.

7. Review the Contractor's schedule for completing earth disturbing activities and establishment of the required 70% permanent vegetation for reasonableness.

Permit violation response (if necessary)

1. Coordinate with permit applicant (INDOT or LPA).
2. PEMS and the Contractor should prepare a formal response detailing corrective action for all violations (CSGP, etc.).

Mitigation site construction

1. Construct the site as per project plans and communicate any recommended changes to the plans with the permit applicant (INDOT Environmental Services or LPA).
2. Direct questions and concerns during construction to INDOT Environmental Services for resolution.
3. Contact INDOT Environmental Services for plant material concerns or issues.

PREFINAL

Inform District Stormwater Specialist and INDOT Environmental Services of Prefinal for discussion of:

1. Construction of the contract according to the plans including all compensatory mitigation or restoration areas.
2. NOT requirements.
3. When site inspection reports should end.
4. Final plant material inspection and acceptance.
5. Requirement of 70% uniform, permanent vegetation density.
6. Removal of temporary stormwater management measures and area stabilization.

RESOURCES

IDEM Emergency Response
Phone: (317) 233-7745
Toll Free: (888) 233-7745

Indiana Storm Water Quality Manual
(https://www.in.gov/idem/stormwater/resources/indiana-storm-water-quality-manual/)
Chapter 7: Storm Water Quality Measures: Construction & Land-Disturbing Activities.
Description: IDEM publication that provides the purpose, specifications, installation guidelines, and maintenance guidelines for storm water management. This chapter also includes information on stabilized construction entrances, secure concrete washouts, and stream crossings.

USGS Topographic Maps
(https://apps.nationalmap.gov/viewer/)
Description: USGS maps can be used when evaluating an area for potential streams (solid or dashed blue lines).

INDOT Links
INDOT Request for Acceptance of Borrow or Disposal Site (IC-203).
(https://erms12c.indot.in.gov/fcrdocuments/)
Description: The contractor is required to complete this form for any off-site borrow or disposal site. It includes what permits, if any, have been obtained by the contractor and whether or not the site has been cleared of wetlands and archaeological resources.

INDOT Environmental Services
Ecology and Waterway Permitting Office
(https://www.in.gov/indot/engineering/environmental-services/ecology-and-waterway-permitting/)
Description: The tasks assigned to this section are summarized on this webpage as well as links to Ecology & Waterway Permitting Staff and Permitting Guidance.

2.6 CONSTRUCTION PROGRESS

It is the intent to allow a reasonable length of time for completion of all contracts. If the Contractor overruns the completion date, they are charged a flat rate per day as liquidated damages in accordance with the SS or as established in the contract.

The Contractor must furnish an acceptable project schedule in accordance with the SS. The schedule should be discussed at each progress meeting and updated by the Contractor as necessary. It is important that the PEMS review the schedule to ensure that it accurately reflects the activities required and in the order in which they will be accomplished.

2.7 SUBCONTRACTS AND RENTAL/LEASE AGREEMENTS

2.7.1 Subcontracts

A prime contractor may subcontract the work in accordance with current Federal Regulations and SS. The SS state that only when consent is given, can the Contractor sublet a portion of their work. The Contractor is required to perform no less than 50% of the original or revised contract amount, whichever is less. The SS state that all specialty items of work may be performed by a subcontractor and that those approved subcontractors will not be permitted to further subcontract their work.

All subcontract requests must be sent to the DO EEO for approval. To obtain approval of a proposed subcontractor, the Contractor must formally request subcontractor approval by submitting the information in the Department's SiteXchange application.

There must be a written and executed subcontract agreement between the Contractor and the subcontractor. A copy of the subcontract agreement must be on file in the offices of the

Contractor and the subcontractor. On Federal-Aid contracts, a set of the applicable Federal Wage Stipulations, Notice of Requirement for Affirmative Action, EEO Special Provisions, Form FHWA-1273 (Federal Contract Provisions) and all applicable contract special provisions pertaining to the subcontractor's operation must be physically attached to and become a part of the agreement. These documents must be made available for review by appropriate Department or FHWA personnel upon request. If subcontractor approval is not obtained prior to that subcontractor working, any work performed by the subcontractor will be considered as unapproved work and should not be paid.

Subcontracting and the timely submission of requests must be a subject for the pre-construction conference.

2.7.2 Field Control of Subcontractors

A subcontractor should not be allowed to start work on the project until approved by the DO EEO. The PEMS may request a verbal approval of the subcontractor from the DO EEO and allow a subcontractor to work prior to the SiteXchange Request for Subcontractor Approval. **Failure to follow the processes described below places the Department's federal funding at risk**.

When a change order adds new pay items of work which are to be subcontracted, the PEMS must get approval from the DO EEO. If the approval is verbal, it shall be documented and attached in AWP with the change order.

Department DO EEO personnel are responsible for monitoring the EEO requirements for DBE, MBE, WBE, and IVOSB programs. Since the achievement of specific DBE participation on Federal-aid contracts is mandated by Federal Regulation, it is necessary that persons at all levels become familiar with these instructions.

Emphasis on the utilization of subcontractors requires that special care be taken by the Department's DO EEO personnel to ensure that the DBEs are being utilized and are performing as set out in the contract proposal. The specific sheets in the proposal are identified as "Affirmative Action Certification." On all Federal-Aid contracts, the Contractor is required to list in the proposal those DBEs intended to be utilized to satisfy the DBE Goal stated in the CIB.

The fact that the Contractor lists specific DBEs in the proposal obligates them to use the DBEs to the extent listed under the contract and for the dollar value indicated in the Affirmative Action Certification. The PEMS must review the items being performed by the DBE to see that they are consistent with the subcontract agreement information within AWP. Information on DBE and subcontractors can be found within the Subcontractors top heading in the Administrative Summary for contracts. NO CHANGES OR ADJUSTMENTS TO DBE ITEMS ARE PERMITTED UNLESS ACCEPTED BY THE DEPARTMENT THROUGH THE DBE CHANGE IN UTILIZATION PROCESS.

Written consent will be provided by the Department based on the Contractor meeting the requirements outlined in 49 CFR 26.53, Department policy, and the SS. The Contractor is required to make good faith efforts within seven business days of Department consent to obtain additional DBE participation. At the end of the contract, the Contractor shall be required to certify actual

utilization of the DBEs listed in the proposal. If the Contractor cannot certify full utilization of DBEs for the items listed and for the dollar values indicated in the Affirmative Action Certificate, they must provide a satisfactory explanation why their commitment was not reached. The Department must monitor the process carefully to see that proper payment is made.

With this in mind, the topic of subcontractors, particularly DBE contractors, must be an important topic of the pre-construction conference. A discussion with the Contractor and the DBE subcontractor, if possible, must be in sufficient detail so the DO and the Department's contract personnel understand what work the DBE will be performing. If the DBE is to do an entire contract item, the DBE is required to perform that work with no work on the particular item by the prime contractor or others. If on the other hand, the DBE is performing only a portion of a contract item, then a detailed discussion must be conducted to explain exactly what portion of the item will be performed by the DBE.

Any deviation from performing an entire contract item must be explained on the SiteXchange Request for Subcontractor Approval. Whether the DBE is performing an entire item or only a portion, no work of any nature on the specific item may be done by anyone, including the Contractor, prior to subcontract approval by the DO. Since the PEMS will be on the contract site to observe the Contractor and their approved subcontractors, it is absolutely necessary that the PEMS knows who is performing what work on the contract. If any item is not being performed as set out in the proposal, all work on that item must be stopped, unless there is immediate danger to life or the traveling public, until a proper approval or explanation is received.

All subcontracts must be approved by the DO EEO before the subcontractor can be permitted to start work. Although some isolated verbal approvals may be given for DBE subcontractors, the Contractor should be encouraged to submit subcontract requests early, especially if the DBE is doing portions of an item which will require additional explanation. The PEMS will not permit any other person, whether it's the Contractor's staff or another subcontractor, to perform an item which has been designated by the Contractor for a DBE.

If for any reason the Contractor finds that a DBE subcontractor will not, or cannot, perform designated work as proposed, the Contractor must notify the Department using the Change in Utilization process. These changes also include those made by Department personnel. Since all subcontracts must be approved by the DO EEO, the Contractor cannot arbitrarily delete items of work from the DBE or switch items to themselves or any other subcontractor, without first obtaining approval. The approval to change or substitute subcontractors will be processed by the Department. All requests for changes from the original listing in the proposal must be submitted in writing and follow the Change in Utilization process.

On all Federal Aid contracts, EEO Attachment CM 32-34, signed by the proposed subcontractor, must be submitted with the subcontractor approval request.

The Contractor is required to provide the Director of the Office of Federal Contract Compliance Program (OFCCP) notification in writing, with a copy to the Department, of each subcontract they award in excess of $10,000.00. This notification shall include the name, address, telephone

number, and employer identification number of the subcontractor. It shall also contain a contract number, type or nature of work to be subcontracted, the subcontract dollar amount, the geographical area in which the work is to be performed, and the estimated starting and completion dates.

The notice shall be forwarded to the Assistant Regional Administrator, Office of Federal Contract Compliance Programs, U.S. Department of Labor, 429 N Pennsylvania Street, Indianapolis, Indiana 46204, within ten (10) working days of the award of each subcontract by the Contractor. The Contractor, in their letter to OFCCP, may wish to indicate that the subcontract has been awarded, subject to the approval of the Department. The Contractor shall submit a copy of the notification with the SiteXchange Request for Approval of Subcontractor in addition to the required Attachment CM 32-34.

The Department will not give approval of the Request for Approval of Subcontractor unless accompanied by the OFCCP notification. No work shall be performed by the proposed subcontractor until DO approval has been given.

Subcontractor approvals may occur prior to issuance of the Notice to Proceed, but no work shall begin until the Notice to Proceed has been issued.

The DO is to emphasize to the Contractor at the pre-construction conference that all sublet requests should be submitted as soon as possible. Also, contractors are to be reminded that all requests must be submitted through the DO. All subcontract requests shall be accompanied by a Certification of Unearned Work, IC-108, completed by the subcontractor and kept in the Contractor's files.

When the dollar value of the subcontract request exceeds $300,000.00 or the unearned work certificate exceeds $300,000.00, the proposed subcontractor must be pre-qualified with the Department. Pre-qualification is not required for hauling operations or for construction engineering work. All subcontractors must be approved by DO EEO even though pre-qualification may not be required.

2.7.3 Rental/Lease Agreements

The purpose of a Rental/Lease Agreement is to allow the Contractor to rent or lease a piece of equipment.

The Contractor or subcontractor is permitted to rent or lease equipment from other contracting firms or rental agencies as long as there is appropriate rental/lease agreement. The agreement cannot contain any provisions that might cause it to be construed as a subcontract agreement. Such an agreement would be in violation of the contract.

The difference between a subcontract and a rental/lease agreement is that a subcontract will stipulate items of work by unit of measure such as: EACH, TON, CYS, LFT, etc., along with specific quantities and unit prices. A standard rental/lease agreement will stipulate the basis for payment

as an hourly, weekly, or monthly rate for the rental of equipment or trucks (with or without operators).

If the operator is provided by the Contractor or subcontractor, the operator must be paid directly by the Contractor or subcontractor. If the operator is provided with the equipment, the operator must be paid by the lessor.

The rental/lease agreements could cover such items as traffic control devices, trucks, equipment (with or without operators), etc., and the agreement must be signed by the parties involved and shall contain a statement that this is the only agreement that exists between the parties.

The PEMS will need to secure copies of the rental/lease agreements from the contractor or subcontractor. A copy of the rental/lease agreement must be sent to DO EEO. Any time there is a need for a rental/lease agreement on a project, an agreement must be secured.

If the PEMS or DO EEO suspect a problem on the contract due to a rental/lease agreement with any Contractor, subcontractor, lessee or lessor, including non-DBE's, the PEMS or DO EEO has the right to request and receive the agreement for review. The PEMS or DO EEO should make the request through the Contractor.

Payrolls are required to be submitted by the Contractor through the Department's CPMS when work on a rental/lease agreement is covered by the Davis Bacon Act.

The PEMS and DO EEO must review the agreement upon receipt to determine if it is a standard rental/lease agreement. If it is, retain the agreement in the contract file. If the agreement contains any provisions that seem beyond the scope of a standard rental/lease agreement, it is to be forwarded to the DO for review and interpretation. When the PEMS becomes aware of an obvious violation, the Contractor is to be instructed to stop the operation involved until the violation is corrected.

All contracts contain an RSP that requires the Contractor to provide the Engineer, including DO EEO, copies of any lease agreements between DBE trucking subcontractors and any DBE, or non-DBE trucking firms, or owner/operators that will be used to supplement the DBE trucking subcontractor's trucks for the purpose of meeting the DBE goal. Copies of these lease agreements shall be provided by the time of use of any supplemental trucks on the contract.

Questions that the PEMS may have on the issue of rental/lease agreements or payrolls related to rental/lease agreements should be addressed to the DO EEO Officer.

The following chart is being provided for added guidance.

	Documents Required Yes/No		
Lease Agreements Between	**Lease Agreement**	**Certified Payrolls Davis-Bacon Act Work**	**Certified Payrolls Non-Davis-Bacon Act Work**
Prime and DBE Lessor	Yes	Yes	No
Prime and Non-DBE Lessor	Yes	Yes	No
DBE Subcontractor and DBE Lessor	Yes	Yes	No
DBE Subcontractor and Non-DBE Lessor	Yes	Yes	No
Non-DBE Subcontractor and DBE Lessor	Yes	Yes	No
Non-DBE Subcontractor and Non-DBE Lessor	Yes	Yes	No
DBE Lessor (1) and DBE Lessor (2)	Yes	Yes	No
DBE Lessor (1) and Non-DBE Lessor (2)	Yes	Yes	No
Non-DBE Lessor (1) and DBE Lessor (2)	Yes	Yes	No
Non-DBE Lessor (1) and Non-DBE Lessor (2)	Yes	Yes	No
Hauling Lease DBE	Yes	Yes	No
Hauling Lease Non-DBE	Yes	Yes	No

2.7.4 Subcontractor Payment Tracking System

Standard Specification 109.07 requires the Contractor to pay all subcontractors, including lessors and material suppliers, for the value of all work performed and all materials complete in place within 10 business days of being paid by the Department.

By the 10th of the month following the payment, the Contractor is required to report all payments made to subcontractors. Additionally, on federally funded contracts, the Contractor must report payments made to all DBE brokers, haulers, manufacturers, and suppliers approved by the Department. On State funded contracts, the Contractor must report payments made to all MBE/WBE/IVOSB brokers, haulers, manufacturers, and suppliers approved by the Department. Payments are reported through the INDOT Technical Application Pathway (ITAP).

By the 20th of the month following payment, subcontractors, brokers, haulers, manufacturers, and suppliers must verify payments in ITAP. If a subcontractor, lessor, or material supplier thinks that payment has not been made in the required time frame, or thinks there is a quantity error on a contract, they can submit an inquiry to Promptpayment@indot.IN.gov for investigation and resolution.

2.8 MAINTENANCE OF TRAFFIC DEVICES AND PAVEMENT MARKINGS

The proper and consistent arrangement of all maintenance of traffic devices is very important at all times. Therefore, the arrangement must convey the correct and appropriate information to the traveling public for the safe and orderly movement of traffic through the construction contract at all times. Poorly constructed, located, or maintained devices are a poor advertisement for the improvement, do not promote good public relations, and are a safety concern.

The SS, Standard Drawings, RSPs, and USPs indicate under what conditions various types of devices, including temporary barrier wall, and pavement markings are to be used. The contract plans indicate the various types of devices and markings that are applicable to the contract and the planned locations. However, the Contractor is responsible for the field layout, placement, operation, inspection, and removal of temporary traffic control devices and markings. The Contractor's Certified Worksite Traffic Supervisor, CWTS, certified by the American Traffic Safety Service Association, ATSSA, or approved equal, must direct all field layout, placement, operation, inspection, maintenance, and removal of temporary traffic control devices. The CWTS should attend the pre-construction conference to discuss maintenance of traffic issues.

A List of ATSSA Approved Equal Worksite Traffic Supervisor Certifications and Flagger Certifications is available at the Department's website. Any CWTS that has a current certification from ATSSA or one of the organizations in the CWTS category of this List will be considered to have met the requirements of the SS. Similarly, any flagger that has a current certification from ATSSA or one of the organizations in the flagger category of this List will be considered to have met the requirements of the SS. A copy of the CWTS certification, and flagger certification if applicable, should be requested by the PEMS.

The field layout will be reviewed by the PEMS prior to placement of temporary traffic control devices. A copy of the CWTS certification shall be provided to the PEMS prior to the start of the installation of temporary traffic control devices or if the CWTS changes. For contracts where no plans are furnished, the SS and SP should clearly indicate the requirements for the use and location of traffic control devices. The procedure prior to start of the work should be the same as previously outlined for contracts where plans are furnished. It is recommended the PEMS jointly inspect the first traffic control devices and setup for each phase with the CWTS and document the traffic control features. This documentation should list the type of device, location, date erected, date removed or relocated, contract item number, and other information pertinent to traffic control. A sketch showing the traffic control set up may be necessary to thoroughly explain the maintenance of traffic plan used.

Under section 801.03 of the SS, the CWTS is responsible for inspecting and maintenance of traffic features daily and completing a traffic control device report a minimum of once per week or whenever devices are installed, removed, relocated, or repaired. The CWTS is responsible for the completeness and accuracy of the Traffic Control Device Report, but the PEMS should verify that the Contractor is making a good faith effort to review maintenance of traffic features daily and completing and submitting an inspection report on a weekly basis. If the inspections are not being performed or the forms are not being submitted, liquidated damages may be assessed in accordance with 105.14.

Judgment should be exercised in the placement of advance warning signs to ensure adequate sight distance. Some variation in sign intervals may be required to obtain a safe and optimal sight distance. See the current Standard Drawings and MUTCD for appropriate placement of signs. The intent of requiring a CWTS is to ensure the Contractor takes responsibility for proper installation and maintenance of traffic control devices.

Advanced warning signs should be clearly visible or completely covered, as conditions require. These signs should be moved to more suitable locations when they begin to interfere with traffic changes. Traffic signs and devices should not be placed on sidewalks or trails.

Warning signs need to be located where they are most effective. There will be unique conditions that require special consideration which include:

1) whether the location is paved or conducive to the use of posts,
2) height of mounting, and
3) lateral distance from the pavement.

In general, the mounting height of signs and size of posts should be as shown on the Standard Drawings for signs and detours.

Sections of the SS call specific attention to the fact that all signs, barricades, temporary pavement markings, and other protective devices must be maintained in satisfactory condition at all times. Traffic control devices and pavement markings that are poorly maintained are often ignored by the traveling public and can create safety risks to both the motorist and the worker. The proper and correct construction, erection, lighting, and maintenance of all drums, cones, tubular markers, barricades, signs and sign standards, and pavement markings is the sole responsibility of the Contractor.

It is a responsibility of the PEMS to make regular work zone inspections for contract compliance. Furthermore, the PEMS should conduct a nighttime inspection of traffic control devices and pavement markings the first night after they are installed. This is especially true at the start of a phase when a lane is being restricted or a road closed. Traffic control devices and pavement markings that seem acceptable during daylight hours are often found to have deficiencies at night. The Contractor should be notified promptly so the deficiencies can be corrected prior to the following night. The PEMS should use the ATSSA brochure “Quality Guidelines for Temporary Traffic Control Devices and Features” as an inspection tool.

Temporary traffic control devices will be in non-compliance when considered “Unacceptable” in accordance with the ATSSA brochure. Temporary traffic control devices will be considered to be in non-compliance when 25% or more of an individual device is considered Marginal. Damages may be assessed in accordance with the SS for non-compliance.

Temporary pavement markings will be in non-compliance when they are considered “Unacceptable” in accordance with the ATSSA brochure, do not meet the visibility requirements of 801.12 of the SS, or have not been placed prior to opening to traffic. Damages may be assessed in accordance with the SS for non-compliance.

On open to traffic HMA pavements, edge lines are to be placed within 14 workable days and maintained until the next lift is placed or the permanent lines are placed, as appropriate for the situation.

On open to traffic PCCP, edge lines are to be placed within 14 workable days and maintained until the permanent lines are placed, as appropriate for the situation.

The Contractor must be immediately notified of any defects and advised of the corrective measures to be taken at once. Any deficiencies noted are to be entered on the Daily Report. The time and date the Contractor was notified, and when corrective measures taken should also be entered on this report.

Temporary Worksite Speed Limit Sign Assemblies are used in areas where the Contractor’s work causes a potential hazard, especially during lane closures. Enforceable reduced speed limits at worksites can be established without the Official Action process required for other speed zones. The design, placement, location, operation, measurement, and payment of such sign assemblies must be in accordance with the Standard Drawings and SS. Worksite speed limits are in effect when the lights are flashing. Such speed limits should not be used for the entire contract unless there is work in progress for the entire length. These speed limits are to be in effect only where and while work is in progress and workers are present. They should only be set up in an area where work is going to be performed. The maximum spacing is 2 mi. The CWTS is required to keep a daily record of the total number and location of signs displayed, using the roadway reference system, the area where each worksite speed limit is established, and the times they are established and discontinued.

On the signature sheet of the contract Invoice Voucher and Progress Estimate, a statement is included as to the condition of barricades, signs, detours, etc. If any of these items are not satisfactory, the estimate should be held at the project office until the unsatisfactory conditions have been corrected. A letter should be sent to the Contractor setting out the reasons for holding up the Progress Estimate with a copy to the DO and CO.

2.9 MAINTENANCE OF TRAFFIC

The RSPs and USPs for all contracts normally indicate whether the contract is to be closed to traffic, or whether traffic is to be maintained along the route. In some instances, the Contractor

will be required to construct certain portions while maintaining traffic and other portions while closed to traffic. Upon assignment to the contract and receipt of the contract proposal, the PEMS should discuss thoroughly the requirements regarding traffic maintenance with the AE and the Contractor, or an authorized representative. This discussion should be conducted well in advance of the start of any construction operations in order to allow the Contractor ample time to make all necessary arrangements to erect the required barricades and standards.

Before starting work and when traffic signals are involved, the Contractor must provide the names and copies of each person's certification card of the Level II Traffic Signal Construction Technicians, the Level II Traffic Signal Field Technicians, and Work Zone Temporary Traffic Control Technician, who have been assigned to perform the signal related work. The certifications cards shall be issued by the IMSA (or an approved equivalent).

When portable signals are used, a technician, certified by the manufacturer, shall be available 24 hours a day to respond within 2 hours for the maintenance of the traffic signal equipment. A copy of the certification shall be provided to the PEMS prior to the placement of the portable signals. Appropriate vehicle detection, as indicated on the list of approved Portable Signals, shall be provided. A minimum of three drums shall be placed in front of the portable signal trailers for delineation.

The PEMS should conduct random checks to determine that traffic is moving efficiently and smoothly. There should be a clear understanding with the Contractor that their vehicles will strictly observe the movement of one way traffic and not be permitted to drive around a line of waiting cars and potentially into the path of oncoming traffic.

It is the intent of the Department to minimize interference with traffic from construction and maintenance operations during major holidays. To comply with the intent of this policy, the DCM may order, in writing, the suspension of work on individual contracts for specific periods of time.

2.10 MAINTENANCE OF TRAFFIC DURING WINTER MONTHS

Section 104.04(b) of the SS states that unless otherwise expressly provided in the contract, existing state roads and other public roads and streets within the limits of the contract shall be kept open to two-way traffic between the dates of December 1 and April 1. The SS further state that private drives and mailbox approaches which are disturbed by the Contractor and on which the surfacing has not been completed, shall be maintained in a condition satisfactory to the Engineer during the time work is suspended.

The PEMS must be thoroughly familiar with requirements outlined in the SS and any contract specific RSPs and USPs as they pertain to maintenance of traffic. The Contractor's attention should be called to those requirements, pointing out their responsibilities for the maintenance of traffic during winter months. This communication should be done sufficiently in advance of December 1st to ensure adequate time for completion of the surface and the necessary preparation for opening the contract to traffic on the specified date.

2.11 DETOURS

The PEMS should not allow demolition operations to begin on a road until the detour has been established and necessary warning lights, signs, and barricades have been properly placed by the Contractor, according to the plans and SS.

2.12 CONSTRUCTION ENGINEERING BY CONTRACTOR

These instructions are to be used on contracts which include the pay item of Construction Engineering. Construction Engineering is to be accomplished in accordance with the SS covering this specific pay item.

The primary purpose of the item of Construction Engineering is to accomplish the layout and setting of vertical control elevations utilizing the Contractor's personnel. The PEMS in charge of the contract will continue to be responsible for: determinations involving engineering judgment, measurement of pay quantities, inspection, serving as the point of contact for the public. The PEMS is also responsible for checking the accuracy of the Contractor's construction engineering as necessary. The degree of checking will vary from contract to contract. The construction engineering item of work is to be checked and inspected for quality of workmanship in the same manner as any other item of the contract.

The PEMS must check the original cross sections by plotting the elevations taken by the Contractor's crews every 500 ft for complete cross sections and every 100 ft on centerline. Structure locations should be checked after being staked by the Contractor. It is good practice for the PEMS to check lead dimensions and bridge grade elevations on all bridge contracts. If the Contractor's work is found to contain errors or inconsistencies, the PEMS must review these issues with the Contractor. Revised information must be submitted by the Contractor, at no additional cost to the Department, to properly correct erroneous or inconsistent information.

As pay items are completed for drainage structures and bridge structures, the quantities should be documented in the project files on standard Department forms.

Staking performed by the Contractor is to be performed in accordance with accepted surveying practices. Field notes shall be kept in a clear, orderly and neat manner consistent with standard engineering practices and in accordance with the Department's prescribed procedure. Field notes shall be furnished by the Contractor and shall adequately document all survey information. The field notes shall become the property of the Department upon completion of the work. The field notes may be inspected by the Department's project personnel at any time and should be regularly checked for completeness. Copies of field notes shall be furnished to the Engineer upon request during the contract.

The Contractor's work shall include:

1. re-establishing original survey points and survey centerlines,
2. referencing necessary control points,
3. running level circuits to check original benchmarks and setting additional benchmarks,

4. setting stakes for ROW, culverts slopes, subbase, subsurface drains, subgrade, paving, bridge footings, piers, and abutments, and
5. any other stakes required for control elevations such as footings, caps, bridge seats, and screed elevations.

The Contractor's personnel shall be used to locate all farm tile, supervised as necessary by the PEMS.

On road contracts, the level circuit to check the plan benchmarks will be run the full length of the contract. On bridge contracts, the circuit shall include four plan benchmarks, if available, two on each side of the structure.

After the grade stakes have been set for earthwork, the Contractor shall take an elevation on the top of each stake and tie in such elevation to a permanent plan benchmark. At the same time, the Contractor shall take a complete cross section at each 500 ft and centerline elevation every 100 ft. Using this information in conjunction with the plans, the Contractor shall prepare a grade sheet including necessary information for special ditches.

In the staking of culverts, the Contractor shall perform appropriate checking to establish the proper location and grade to best fit the conditions on the site. The PEMS will make a cursory inspection to verify the Contractor's work. Any revision of plan length or size of culverts is to be approved by the PEMS. The Contractor does not have the authority to revise planned culvert information.

The bid price for the item of Construction Engineering is on a lump sum basis. The payment for this item on a Progress Estimate is to be made in proportion to the percent of the contract completed. This may be done by estimating the percent complete and should not require extensions of all pay items for the Progress Estimate being prepared.

It must be stressed that the Department's Engineer will make all measurements and surveys that involve the determination of all final pay quantities.

The following points should be re-emphasized:

(a) Department personnel will make all measurements and surveys involving the determination of final pay quantities, including earthwork.
(b) The PEMS is responsible for determinations involving engineering judgment.

The efficiency and satisfactory results obtained from the use of construction engineering will depend largely upon a high degree of cooperation between the State and Contractor personnel.

The use of GPS, controls for construction engineering and machine controls must provide adequate staking necessary for the PEMS to check the accuracy of the work. The extent of use for GPS should be discussed at the pre-construction conference.

2.13 WAGE RATE PROVISIONS ON FEDERAL-AID CONTRACTS

As a condition of Federal participation in highway projects, the Department and its representatives are responsible for the enforcement of the Federal labor standards as set out in the CIB. In this respect it is the responsibility of the PEMS to make frequent examinations of the contractor's employment records within the Department's CPMS, which by the terms of the contract are required to be made available at the site of the work during the progress thereof. Such examination shall establish (1) whether the wages being paid to laborers and mechanics are at rates not less than those predetermined by the Secretary of Labor as contained in the contract provisions; (2) whether the work being performed by any specific class of employee, including helpers and apprentices, conforms to the classifications set forth in said contract provisions for the wage rate they are being paid; and (3) whether the classifications are correct and whether there is evidence of any disproportionate employment of laborers, helpers or apprentices as to indicate avoidance of the minimum wage rate provisions of the contract; and (4) that payrolls are received timely on a weekly basis.

2.13.1 Wage Rate Interviews

Systematic spot interviews are to be made by the PEMS and/or the DO EEO Officer with the employees of the Contractor or subcontractor on the job to establish reasonable assurance that the minimum wage rate provisions are being fully complied with and that there is no misclassification of labor or disproportionate employment of laborers, helpers, or apprentices. Employee interviews should be made early in the life of the contract and whenever changing operations bring in an influx of new employees. Most violations in the past have been occasioned by groups coming in from other areas where different wage rates prevail, and their supervisors not informing themselves as to the required scale. Employee interviews should be documented. The responsibility for seeing that sufficient interviews are made to ensure that minimum wage scales are being met, rests with the PEMS, but this does not preclude the delegation of the duty to a responsible subordinate nor does it preclude such interviews being made by AEs, and they are encouraged to continue interviews where they have been so doing.

2.13.2 Contractor Payroll Management System (CPMS)

The CPMS process helps the PEMS identify and act on these issues. The CPMS application is located within the INDOT Technical Applications Pathway, ITAP.

Once within the CPMS system, the PEMS will be presented with a summary screen of the contracts they have authority on organized by District. Within the summary, there are columns indicating Payrolls Submitted, Payrolls, Upcoming, and Payrolls Overdue. To view a specific Contractor's Payroll, select the appropriate Contract # from the Summary. Once the contract is viewable, CPMS lists all the approved Contractors on the contract and which weeks those contractors had personnel on-site, based on DWR entries. The PEMS can manually override a week's Payroll Required state in case contractors were on site but not recorded by the HT.

Payroll uploads by the Contractor are visible for any week. The PEMS can review payrolls, in accordance with the CPMS Manual instructions, and either Approve or Deny their compliance. Payroll blocks will turn either green or gray accordingly.

Federal-Aid projects provide for the optional use of form WH-347 for the submission of weekly certified payrolls. The information for the payrolls may be submitted on the optional WH-347 or in any other format desired. The weekly submission of a properly executed certification, as set forth on the reverse side of the optional WH-347, will satisfy the requirement for submission of the "Statement of Compliance. Detailed instructions of the contractor's responsibility in regard to payment of fringe benefits are given on the back of Form WH-347. All PEMS or others responsible for checking contractor's payrolls should use these instructions as guidelines when checking payrolls.

Drivers of bona fide independent trucking firms who make deliveries to the construction site for, or on behalf of, either a contractor or the materials supplier are not subject to the wage requirements provided the source or supplier is an established commercial supplier.

A trucking firm does not need to have an established published tariff in order to be considered a "common carrier." The exception set out above is applicable only if the source is a recognized commercial source; and would not apply to temporary sources or production by the contractor or a subcontractor. In view of this interpretation, it will be necessary to question the transportation feature when a contractor is purchasing material FOB supplier's plant or source to determine whether or not the truck drivers are subject to the minimum wage rates. Even though there has been a prior determination by that a source or supplier is considered commercial and the production not subject to the minimum wage rates it will still be necessary in each subsequent instance to determine the purchase arrangements, FOB. source or FOB job site, to determine the status of the truck drivers.

Anytime that material is purchased FOB a commercial source, it will be necessary to differentiate whether the drivers are employees of the contractor or a bona fide independent trucking firm. An owner-operator or trucks rented by the contractor would not be considered an independent trucking firm. As a guideline, an independent trucking firm would be any company that normally contracts the hauling of batches or like materials from the prime contractor, and thus assumes the responsibility to perform that particular operation.

2.14 FIELD OFFICE

The purpose for having a field office is to provide Department field staff a place to work on office details of construction engineering, reports, and required records for the job. Meeting the general public at a field office may be limited, but this purpose should not be forgotten in its maintenance, furnishing, and location. The location of the field office will be approved by the PEMS. The field office and equipment must be complete with all utility and equipment requirements as noted in accordance with 628 of the SS.

Due to the possibility of vandalism or loss by fire, one of the first considerations in the location of the office should be safety from these hazards. Generally, a more populated, lighted, or police

patrolled area will be safer than one in which none of these conditions exist. For these reasons consideration must be given to locating the office in a village or town as compared to a more remote area along the highway. Convenience to a job and safety to the traveling public must be considered. The office and a logical parking space should be located so that neither is on public right of way and within 30 ft of the edge of pavement lanes open to traffic.

Cleanliness and orderliness should be kept in line with the purpose of conducting the business of the Department. A clean and neat office is conducive to a business-like atmosphere and creates a lasting impression in the mind of everyone having occasion to enter. Wall decorations, which would be considered in poor taste in any public building, reflect poorly on the PEMS and staff when found in a field office and are not permitted.

The equipment furnished in the field office is for Department business only. If the field office is used to supervise more than one contract, terms shall be agreed upon prior to use for additional contracts.

Payment for the field office should be continuous from the start of the contract until the work is completed. This would include the months that the contract may be suspended over the months. The exception to this procedure is stated in 108 of the SS.

2.15 PARTIAL PAYMENT FOR STOCKPILED MATERIALS

Items listed in 111 of the SS can be considered for partial payment for stockpiled materials when the allowable partial value for a given pay item exceeds $50,000.

The PEMS must substantially verify and document the quantity of materials reported by the Contractor in the construction applications program. The quantity of materials should be reported in the same units as shown in the CIB, for example, subbase should be shown in units of CYS, riprap in TON, and dowel bar assemblies in LFT.

A change order will need to be processed to establish an item for each stockpiled material. Payment would be authorized up to the verified amount. The unit cost should not exceed the allowed percentage of the original unit price in the contract documents. The PEMS must approve the storage location, assure that the materials are accessible in the event of Contractor default, and note the item being stockpiled in the supplemental description of the change order. Lump sum items should be created as a whole lump sum quantity with a unit price prorated to match the verified quantity. For example, a PEMS will create a lump sum stockpiled material item for Structural Steel with a unit price of $100,000. The steel is planned to be stored at the manufacturer's facility. The stockpiled material lump sum quantity would be 1.00. The price would be calculated as:

$100,000 (contract unit price) x 70% (maximum percentage based on storage location) = $70,000.

As an alternative to the above described change order process, the PEMS could choose to generate a $1.00 unit price for each stockpiled material item and list each stockpiled material

item on the change order. As partial payments are made for each stockpiled material and then deducted, as those materials are completely incorporated into the work, the $1.00 value of each stockpiled pay item generated on the change order will increase and then, ultimately, decrease to arrive back at the original $1.00 unit cost.

The PEMS will be required to attach all the required documentation, such as delivery invoices in accordance with 111 to the change order as the stockpiled material payments are made. Attaching the required documentation to the change order provides proof that the Department has ownership of the specific stockpiled material. The explanation of the change order should describe each pay item to be stockpiled whether the material is stockpiled on the jobsite or other approved storage facility, the maximum partial payment percentage used for each item material in accordance with 111, and the corresponding maximum dollar value of each stockpiled pay item. The maximum dollar value is calculated using the equation:

Maximum Dollar Value = (maximum percentage based on the storage location) x (contract original item cost)

This alternative method of making payment for stockpiled materials through a change order allows the Department to track the payment of the stockpiled materials with approved stockpiled material pay items and may simplify the change order approval chain. Stockpiled material items created this way are not intended to increase the overall contract value. The change order generated items for the stockpiled materials are used temporarily and are intended to only pay for the initial stockpiling material costs. This option supports both the accounting for payments and the change order policy.

Change orders considered by the PEMS for stockpiled materials in which the Department has determined there is a material shortage, must be agreed to by the AE and their Districts FE prior to generation.

The PEMS or their delegate shall make frequent inspections of the stockpile to assure the materials are not being used for other work unless authorized in writing by the DDC. If stockpiled materials are used without prior authorization, progress payment amount will be deleted from the next estimate.

2.16 EQUAL EMPLOYMENT OPPORTUNITY

All Federal-Aid contracts contain some type of EEO requirements. These requirements differ from contract to contract. It is essential that the PEMS carefully examine the provisions of the contract to better understand which requirements are applicable. It is the PEMS responsibility to maintain a complete and accurate file of all EEO documentation required for the contract.

The following is a list of various types of EEO documentation; some or all of which may be required on a specific contract:

1. Minutes of pre-construction conference and/or EEO conference, if held separately.

2. Record of visits of the Contractor's EEO Officer on the contract to review EEO compliance.

3. Records of meetings of the Contractor's supervisory personnel.

4. Copy of the EEO Policy statement with EEO Officer appointment letters for the Contractor and all active sub-contractors.

5. Copy of the EEO Bulletin Board form listing the required posters for the project.

6. Statement from the Contractor that the notation "An Equal Opportunity Employer" will be used in all advertisements for employees.

7. A list, prepared by the Contractor, of the area minority group organizations which they intend to contact as a potential source likely to yield minorities for referral to the contract for employment, as the need for personnel arises and when it does not violate a bargaining agreement.

8. Records of payroll.

9. Records of any complaints of discrimination and actions taken.

10. Statement from the Contractor indicating if pre-apprenticeship, and on-the-job training are being used on the contract.

11. Statement from the Contractor that they are reviewing, at a minimum of every six months, all employees on the contract for training and promotion.

12. Records indicating minority contractors and/or organizations contacted that might yield potential minority subcontractors in the Contractor's efforts to utilize minority subcontractors. This is not required if there are no subcontractors.

13. List of all unions, which furnish employees for the contract.

14. Name of unions, which do not have EEO clauses in their agreements with the Contractor or its representative.

15. Copies of letters to unions informing them of the Contractor's EEO policies and the goals to include minority and majority persons in the performance of this contract.

16. The name, address, and telephone number of the EEO Officer for the Contractor and all subcontractors.

17. Statement from the Contractor indicating whether they are under Part I (signatory to Hometown Plan) or Part II (abiding by the affirmative actions and goals of minority manpower utilization) of the Hometown Plan Bid-Conditions (Applicable under Hometown Plan Provisions only).

18. For all applicable crafts, copies of "Optional Form 66" (Manpower Utilization Report) for all applicable Contractors and, if all minority utilization goals are not being met, a copy of the explanation as to why the Contractor is not meeting the goals. (Applicable under Hometown Plan Provisions only).

19. Federal-Aid Highway Construction Contractors Annual EEO Report Form PR-1391 (Required on all Federal-Aid contracts).

It is the responsibility of each prime contractor to ensure subcontractor compliance with all the previous mentioned minimum documentation requirements for Equal Employment Opportunity.

Affirmative action by DO personnel in the specified contract requirements is essential in order to accomplish the goals of Equal Employment Opportunity.

The outlined EEO documentation requirements will meet current FHWA Equal Employment Opportunity Provision Requirements for Federal-Aid Highway contracts.

2.17 CONTRACT REQUIRED INSURANCE

Insurance for a contract is specified within the SS. The purpose for requiring insurance is to underwrite the Contractor's work in case there are performance or default issues that arise during the contract. The Contractor's required insurance will help the Department continue the contract, complete the contract, or recover contract loss. Information on the requirements of contract insurance is located within 103.05 of the SS.

Prior to commencing the work, the Contractor must furnish evidence of insurance as required by the CIB and 103.05 of the SS. The Division of Contract Administration will administer the insurance filings and maintain the files. Contract Administration will distribute periodic notifications on the status of contract insurance to help the DO in monitoring insurance expirations for contracts. The PEMS will enforce 103.05 of the SS. When the Contractor fails to submit the insurance documents in a reasonable time after the award of the contract, a Notice to Proceed may be issued accompanied with a letter advising the DO that no physical work at the

job site is to be permitted until the Contractor furnishes the required insurance documents. In this instance contract time shall be assessed, in accordance with the provisions of the contract, the same as would normally be assessed if the Contractor could proceed. The DO will be advised by CO when the insurance documents have been filed and work may begin.

Approximately every 10-14 days, the DO will receive a computer listing of active contracts within their DO. The first part of the listing will show those contracts on which insurance will expire within a few weeks. The second part of the listing will show all active contracts, for information only.

The DO shall review the listing of contracts on which insurance expiration is near and determine whether renewal is necessary. For example, if the contract has been completed, or will be completed, prior to the expiration date, usually renewal is not necessary. NOTE: specific contracts remain on the listing until the Final Acceptance Letter is issued.

If the DO determines that renewal of insurance is necessary, the DO shall send a letter of notification to the PEMS. The letter shall specifically state that the insurance documents must be sent directly to the Contract Estimating Administrator in the Division of Contract Administration, and that if evidence of renewal is not received prior to the expiration date, work on the contract shall be suspended in accordance with 103.05 of the SS. This section of the SS requires that no work shall be performed by the Contractor without insurance except that necessary for traffic maintenance and the protection of life and property. It is the DO's responsibility to see that this specification is strictly enforced.

When Railroad Protective Liability insurance expires, no work shall be performed by the Contractor on, over, or under the railroad's property, or within 50 feet of the railroad's tracks until this insurance is renewed. Work may continue on the contract in other areas provided all other insurance is in force.

As soon as the PEMS is made aware of the pending expiration, he or she should inform the Contractor's contract manager that all work will be suspended after the expiration date until notification of renewal is received. Contract time shall continue to be assessed in accordance with the contract. Suspension of work, notification of renewal, and resumption of work shall be noted on the Daily Reports.

The DO may verify the status of any contract insurance. The files will be updated daily and may be reviewed by the DO. It is the DO's responsibility to help monitor contract insurance and inform the PEMS when the insurance filing or renewal has been made. No other notification will be sent to the DO of filings and renewals. The DO shall notify the PEMS as soon as possible. Any follow up notification should state the date on which the original notification was made.

If the Contractor asserts that the insurance filing or renewal has been made, but the DO is unable to verify this fact, the DO may consult with the Contract Management Supervisor in the Division of Contract Administration for verification and assistance.

2.18 CONTRACT TIME ADJUSTMENTS AND TIME WAIVERS

The primary difference between a contract time adjustment and a time waiver is that a contract time adjustment is associated with changes in the physical work performed on the contract and a time waiver is not. Physical work is work performed by the Contractor, a subcontractor, or a third party such as a utility or railroad. A contract time adjustment is typically used when necessary to revise the contract time up until the All Contract Work Complete date. A time waiver is typically used to eliminate liquidated damages for delays that are not the fault of the Contractor after the All Contract Work Complete date.

The following guidance should be used for all contract time adjustments and time waivers. This guidance is in addition to the requirements of the Department's policy for time extensions and is not intended to supersede any part of the policy. The Department's change order and time extension policy is included as an attachment to Construction Memo 22-08.

2.18.1 Contract Time Adjustments

A contract time adjustment is used when it is necessary, as defined in the contract documents, to modify a contract's original completion date for specified contract work. Contract time adjustments also apply to all types of intermediate contract dates, such as intermediate completion dates, closure periods, mowing cycles, and any other date or time specified in the contract, either original or by change order. Intermediate contract dates are referenced as Informational Contract Times within AWP.

For an intermediate completion date, completion of the work means that the portion of work specified in the contract for that date or period has been completed, opened to traffic, and can be placed into service for its intended purpose.

An intermediate contract date is to be documented within the Informational Contract Times within AWP. The following Contract Time information is recorded:

- Description of intermediate contract date
- Type of time charged
- Rate of time charged
- Bid time (if applicable)
- Time charged (if applicable)
- Time remaining (if applicable)
- Incentive/Disincentive rate amount (if applicable)
- Intermediate contract start date
- Original intermediate contract completion date
- Adjusted intermediate contract completion date
- Actual intermediate contract completion date.

The initial Contract Time information is usually uploaded at the beginning of the contract. If not, the PEMS will need to create a new Contract Time entry for the intermediate contract date and follow the prompts accordingly. To verify if intermediate contract dates are applicable to the

contract, refer to the CIB. All contract times are to be monitored and completed as the event occurs. Do not wait until the end of the contract to enter milestone dates. Consult the AWP training manuals located in the AWP Home page.

For a contract completion date or time, completion is defined as the last day of work. However, when the contract reaches the stage of All Contract Work Complete and the Contractor and the Department agree that the project is ready for pre-final inspection, additional time is given, in accordance with 108.09, for punchlist work and removal of signs, which generally constitutes the last day of work. Additional time granted for punchlist work and removal of signs should be addressed by a time waiver and not a contract time adjustment.

The Contractor must request all time extensions. The request must include documentation on the requested time extension and its impact on the scheduled critical path of the contract. A contract time adjustment must be documented on an approved change order. The change order should be generated as soon as the adjustment is agreed upon by the Contractor and the Department. Full justification and adequate documentation of the time extension must be included in the change order. A calculation supporting the number of days granted or a relationship to the schedule for a date granted should be provided as an attachment.

When a change order is generated to add new work or significantly change the quantities of existing work, the time associated with the work should be addressed in the same change order. In cases where the time associated with the change cannot be determined, an exception may be made to address the time on a future change order.

One of the following statements must be included in the explanation portion of each change order:

- **TA** - A contract time adjustment is required for this change and has been addressed herein.
- **TAP** - A contract time adjustment is potentially required for this change, but cannot be quantified at this date. Any contract time adjustment required for this change will be addressed by change order at a future date.
- **TAN** - A contract time adjustment is not required for this change.

When a contract time adjustment is not made at the same time as the change order revising the work, the future change order that addresses the time must include a reference in the explanation to the original change order that revised the associated work.

2.18.2 Time Waivers

Time Waivers are used to excuse liquidated damages between the All Contract Work Complete date and Final Acceptance date. Time waivers should be used in the following two instances.

The first instance occurs when time waivers are granted between the All Contract Work Complete date and the Last Day of Work date. To justify days intended to be waived, the PEMS must

document the types of operations that took place during this time period within the diary entry on the Last Day of Work. The documentation should indicate how much of this time period is due to waiting on sod maintenance to expire or due to obtaining the NOT. Because extra work that is added at the pre-final inspection falls within the All Contract Work Complete date and the Last Day of Work date, a change order to adjust contract time is not necessary. Additional time to complete extra work should be agreed to at the pre-final inspection and documented in the diary on the Last Day of Work. This work should not be included with the 5 days allotted to perform corrective or cleanup work for the final inspection in accordance with 108.09 of the SS.

Unlike the first instance where the appropriate time waiver is automatically captured in the IC-632, in the second instance, which falls later in the contract timeline between the Last Day of Work date and the Final Acceptance date, a Time Waiver Change Order is required. This change order will be of the Type "Time Waiver". The amount of days granted by the time waiver will be entered on the Time Adjustment Tab. This time waiver Change Order will not affect any milestone or the Adjusted Contract Completion Date but will excuse the desired number of liquidated damage days that would have been assessed between the Last Day of Work date and the Final Acceptance date.

One example of when to use a “Time Waiver” Change Order is as follows:

The Department conducted an HMA mix design review for HMA placed on a contract.

- The Contractor had completed their work and punchlist on 9/30/23 and INDOT issued the Release of Signing Responsibility, IC-686, after the final inspection.
- The Contractor removed their signs on 10/01/23 and this day was entered into AWP as the Last Day of Work date.
- INDOT was currently reviewing the HMA mix designs for binder content on this contract which were found to be in error due to a Department miscalculation on the acceptance sample and beyond the Contractor’s control or responsibility.
- The HMA mix design binder content review was completed with no issues found on 4/15/24. INDOT issued the final acceptance letter and this date was entered into AWP as the Final Acceptance date.

If the Contractor was found to have had no responsibility with the mix design binder content as determined from the HMA review, the Contractor would be excused of the liquidated damages between their Last Day of Work date and the Final Acceptance date. Therefore, a time waiver would be created between 4/15/24 (Final Acceptance date) and 10/01/23 (Last Day of Work date). The difference in these two dates would be 196 days and should be entered in AWP on the corresponding “Time Waiver” change order.

A "Time Waiver" change order would not be used for operations such as NOT or sod maintenance. NOT and sod maintenance must undergo final inspection before the contract can be accepted. On the day NOT or sod maintenance is obtained on a contract where the signs have already been removed, the Release of Signing Responsibility, IC-686, will be issued and will be marked as the Last Day of Work. The Completion Date and Liquidated Damages Data form, IC-632, will already capture this waiver period allowed for pre-final inspection, punchlist, final inspection, and signs removal, in accordance with 108.09 of the SS.

Questions concerning the use and documentation of contract time adjustments and time waivers should be addressed to the appropriate Construction Management Field Engineer.

2.18.3 Above Normal Inclement Weather Contract Time Adjustments

Above normal inclement weather, as defined in the SS, is a commonly utilized reason for a Contract Time Adjustment. The number of approved days should be calculated in accordance with the SS requirements.

It is critical for both the PEMS and the Contractor to engage in open and transparent communications as to whether a day is considered workable on the controlling operation or critical path. It may be necessary for the Contractor to describe and clarify alternate plans for upcoming work. Those plans should include how the weather event affects the controlling operation and critical path. The following must be considered when calculating a time adjustment due to above normal inclement weather days:

- Workable days are calculated on a yearly basis for each construction season from April 1st through November 31st. **Inclement weather days are not calculated on a month-by-month basis.**

- Workable days are calculated if the controlling operation on a Contractor's accepted schedule was delayed due to inclement weather.

- Workable days are calculated by considering the date of the weather event itself and any additional days which continue to be un-workable on the controlling operation due to the event.

- Workable days are calculated by prorating the months during which the construction contract begins and ends. The number of calculated days should be rounded according to the Department's rules for rounding found in General Note No. 9, located in the front pages of the SS. (*See* **Example #1**)

- Workable days are calculated for bundled contracts based on how each project has been independently affected by the event. In accordance with the SS, time extension requests for specific projects should be reviewed and considered based on the critical path for the overall contract.

- Workable days are calculated on closure periods and time periods involving

intermediate completion dates independently by utilizing only the period of time involved and prorating as appropriate. (*See* **Example #2**)

- Workable days are calculated even when the Contractor requests inclement weather days that occurred on a contract that, after receiving the Notice to Proceed, was started late, was within the Contractor' s control, and was not the fault of the Department. (*See* **Example #3**)

- Workable days are calculated on non-working weekend days or holiday periods when the Contractor is not required to shut down operations. (*See* **Example #4**)

A weekly report showing the controlling operation and workable days is required to be furnished to the Contractor on a weekly basis. The Contractor will be allowed one week from the date of receipt of the report in which to file a written protest stating their disagreement with the report. If no written disagreement is received within the allowable time frame, the weekly report will be deemed as being accepted by the Contractor. It is essential that concurrence is made in a timely manner between the PEMS and the Contractor to alleviate time extension disagreements and construction claims.

Example #1 - Prorated Time:
If the contract completion date for an "R" contract is November 17th, then the number of days to be used for an estimate of inclement weather for the 17 days in November would be calculated as:

$$\text{Prorated time} = \frac{17 \text{ days}}{30 \text{ days (November)}} \times 12 \text{ days (from table in 101.02 of the SS)}$$

$$= 6.8 \text{ days (}\textbf{rounds to 7 days}\text{).}$$

Example #2 - Intermediate Completion Dates:
If an "R" contract is scheduled to start on April 1st with an intermediate completion date of July 31st, the inclement weather time frame will only involve the time period between and including these two end dates. Therefore, using the table in 101.02, if more than the 36 inclement weather days (18 days for April + 8 days for May + 5 days for June + 5 days for July) occur during this period, a time extension should be generated for the extra days and added to the July 31st date.

Example #3 - Delayed Start:
When the Contractor should have started active work on April 1st but did not start until August 1st and the contract completion date is October 1st, the Contractor would like the Department to not consider the time from April 1st to August 1st in the inclement weather calculations. Based on the SS which state that the Contractor is expected to start active and continuous work in a timely manner after issuance of the Notice to Proceed, the entire time frame that the Contractor could

have worked will be considered (April 1st to October 1st) in the inclement weather calculations.

Example #4 - Non-working Weekends and Holidays:
If the Contractor has not been working weekends and inclement weather days take place on a Saturday or Sunday, the inclement weather days that take place on Saturdays and Sundays will still be counted in the inclement weather day calculation. Similarly, for a holiday where the Contractor is not required to shut down work operations but has not been working on the holidays, the inclement weather days that take place during the holidays will still be counted in the calculation.

2.18.4 Inclement Weather During Approved Contract Time Adjustments

Inclement weather days that occur within an approved time adjustment will be considered on a day-for-day basis. The Department will grant an excusable, non-compensable delay for every day that work on the controlling operation cannot take place during an approved time adjustment period due to inclement weather. (*See* **Example** below.)

Example:
If the Contractor is granted a 10-day time extension, then 10 days of workable weather should be granted to allow the work planned for the inclement weather days to be accomplished. The granted days would include Saturdays and Sundays. Once the end of the granted 10-day workable time extension ends, the Contractor will be charged liquidated damages based on the contract documents. The Department expects the Contractor to bid in the potential risk of inclement weather within the original time frame of the contract but does not expect the Contractor to bid in risk during potential time extensions to the contract.

2.19 CHANGE ORDERS

A Change Order is a written agreement executed by the Department and the Contractor that modifies an existing contract.

In order for the Department to track and manage Change Orders, each Change Order must accurately identify the reason for the contract modification.

2.19.1 Contract Modifications

A Change Order must be executed to document any of the following changes to a contract:

- Monetary Adjustment
- Time Adjustment
- Scope or Design Change.

Monetary adjustments may result in additional compensation for the Contractor or a credit to the Department. They may result from changes in quantities associated with existing contract pay items or the addition of new pay items to the contract.

Time adjustments may result in either increased or reduced contract time to perform work associated with closure periods, intermediate completion dates, or the contract completion date. Once the time adjustment change order for an intermediate contract date is approved in AWP, the time adjustment will be conveyed to the appropriate contract time.

One form of scope and design change is a Construction Change. Construction changes occur when issues are found after the letting which require a change in the scope or design. Construction changes typically include revised plan sheets or specifications related to a revised design or a changed condition. Construction changes for contracts can be found on INDOT's website. They are posted for viewing or download. These scope or design changes may result in monetary adjustments, or time adjustments, or both.

2.19.2 Procedure for Documenting Non-Participation Pay Items

Non-participating means that a pay item is not eligible for federal funding and "participating" means that an item is eligible for federal funding. Federal regulations prohibit the use of federal funds for payment of some pay items.

Prior to executing change orders that add new pay items to the contract, the PEMS should check the list of non-participating work categories provided below. Verify whether any of the pay items included in the change order require a non-participating designation. In situations where the non-participating category is required, designate the affected pay items as non-participating. Purchase orders utilizing 100% State or 100% LPA funds must be utilized to pay for these non-participating items.

An item should only be identified as non-participating within a change order if it is an item being added to the contract that FHWA would not normally agree to participate in the funding. To indicate a pay item as non-participating within a change order, make sure the item is identified as such within the change order.

Below is a list of frequent federal non-participating categories:

- Payment for work outside the highway ROW without permits, etc.

- Payment for work outside the limits of the project (unless necessary to implement project, traffic control, etc.) Work performed outside the NEPA limits of the project may jeopardize federal funding for the project without FHWA prior approval.

- Payment for work not required by the project plans. (Example: fence upgrades, utility upgrades, etc.).

- Payment for modifications of privately owned facilities. (Example: signs, fences, lawn sprinklers, etc., unless covered as a part of a ROW agreement or permit).

- Payment for storm and sanitary sewer work and other drainage or utility work that is not a result or purpose of the road or bridge work. (Example: replacing sewer leads that were not in conflict with the construction activity proposed). Payment for costs incurred solely for the benefit of a railroad or utility, or for betterments that are not currently part of the project. (Example: payment for excess sizing of sanitary sewer adjustment for future development. The additional cost over replacement-in-kind should be borne by the owner of the facility being adjusted).

- Payment for excessively expensive treatment work that does not appear to be in the public interest. This could include accelerating the project for other than mitigating an excusable delay, or proposing the use of very extravagant roadway treatments or street side appurtenances.

- Payment for significant hauling or transportation charges of salvaged items to Department or agency garages or storage sites for future use on non-federal projects. Although, hauling material for less than 5 miles from the project site has been considered a reasonable distance and would be eligible for payment.

- Payment for non-conforming work such as substandard details, designs determined undesirable or discontinued because of poor performance. (Example: A588 guardrail, salt susceptible roadside plantings, etc.)

- Payment for work that is the responsibility of others, such as relocation of utilities located within the ROW, and relocation of public facilities outside their corporate limits.

- Payment for accident damage when a work zone MOT is not in place due to the increased risk of accidents or when financial recovery has been obtained from the responsible party, such as driver, owner, or insurance company. If financial recovery has been transferred to the Department's Damage to State Property process, then the accident damage is not eligible for participation.

- Payment for work done by an unapproved subcontractor.

- Payment for work that should typically be considered maintenance work by the Department or Local agency. (Examples: graffiti removal, snow plowing, trash removal, moving roadsides, etc.)

- Payment for rework (including incorporated materials, etc.).

- Payment of work and materials not meeting specifications that are incorporated into the project.

- Payment for change order work performed using the force account method that is not in accordance with the SS.

- Payment for work included on a change order or a contract revision that was required to have prior approval by FHWA for FHWA oversight contracts but did not obtain prior approval.

- Payment for the incorporation of iron or steel products that are subject to Build America Buy America (BABA) but have not been certified as compliant with BABA requirements. **Note:** Any product that should have a BABA certification but is deemed as non-participating is not allowed as it circumvents the BABA compliance requirements and jeopardizes the Federal aid eligibility of the entire project.

- Payment for costs that arise from negligence, intentional acts or omissions, fraud, carelessness, incompetence or other actions by the Department which are not consistent with the usual Department practices.

- Payment for contract claim settlements if the Department is determined to be negligent. (Example: utility and ROW claims)

The PEMS must work with DO personnel to either add the required funds to an existing 100% State funded or 100% LPA funded purchase order, as appropriate, or to establish new 100% State funded, or 100% LPA funded purchase orders to facilitate payment for the non-participating work.

An item on a change order indicated as non-participating does not mean that the entire change order itself will be non-participating. If there are both participating and non-participating items on the same change order, ensure that the appropriate dollar amounts are indicated when adding the funds to purchase orders.

Once the non-participating item is added to the contract an "*" will be included with the item on the estimate. Please note that it is not necessary to designate the item as non-participating in the new item name, but it should be explained that the item is non-participating when the change order explanation is prepared in AWP.

2.19.3 Procedure for Documenting Non-Participation in Time Extensions

When FHWA determines they will not participate in state-approved time extensions, the non-participation time period and associated costs will be documented by separating the cost of the field office pay item and the Department's contract field staff payroll records for construction inspection into participating and non-participating components. During the timeframe for a standard contract from the beginning of construction until the FCR is complete, the contract is kept open and the field office and administrative costs of the inspection staff are compensated.

This procedure will extract only the portion of the non-participating time out of the standard process.

For example:
A contract is to be completed on November 15. Time extensions totaling 45 days are granted to the Contractor for reasons that the Department has determined are outside of the Contractor's control. Fifteen of the 45 days are granted from November 16 to November 30 and the remaining 30 days extend into the following construction season from April 1 to April 30. Therefore, the contract completion date is extended to April 30. FHWA agrees to participate in only 30 days of the Department approved, 45-day extension. In this case, 15 days of the Department approved time extension must be paid through a non-participating item and Department contract field staff time charged to a State funded labor code.

Suggestion:

1. **Place non-participating time at the end of the state-approved time extension period.** For the time period from April 16 - April 30 (the final 15 days of the time extension) the field office will be paid for by a non-participating field office item and the Department's contract field staff will charge time to a State funded labor code so no federal reimbursement will be sought. Beginning May 1, the field office payment will return to the original participating item and the Department's contract field staff will return to charging time to the federal project number. The non-participating time is clearly separated in this option. The pay items are on record and a note can be included in the project files and FCR showing the times charged to a separate labor code.

2. **Place non-participating time at the end of the contract.** If there are 15 non-participation days, continue to charge for the field office using the participating item until the last month the field office is used, and then create a new non-participating item. Likewise, continue charging time to the federal project number and switch to the State labor code during the last month. This scenario could be more difficult to determine exactly when to switch the pay item and labor codes. This time period will occur after construction has been completed and during the time when the staff is working on the final construction record. This could be particularly difficult if the non-participating time period is large.

Essentially, the Department will not charge FHWA for the construction inspection costs for the non-participating timeframe. This will be accomplished by adding the field office as a non-participating item, by change order, during the time of the non-participating delay. The non-participating costs will be the construction inspection costs alone and will not include, or be based upon, the value of the Liquidated Damages amount waived.

This process will not be utilized when the time extension is for an intermediate completion date, as the inspection costs would still be incurred beyond that time regardless. All time extensions, including intermediate time extensions, must contain sufficient documentation to obtain FHWA participation. This inclusion will help to eliminate the risk of the Department having to credit back the liquidated damages rate for the number of days of the time extension. Furthermore, if the Contractor substantially completes the work prior to the adjusted non-participating time extension date, the Department would stop using the State labor code and the non-participating field office item at that date and go back to charging Department field staff time to the project, using the participating field office item until the completion of the final.

2.19.4 Extent of Work Covered by Change Order

In order to help manage Change Order information, it is necessary to limit pay items included in a Change Order to only those items required to mitigate a specific event or for a specific reason code. It is possible for a Change Order to include monetary adjustments, time adjustments, and scope or design changes as long as each Change Order component is related to the mitigation of the same event.

For example: An existing utility is found to be in conflict with a planned storm sewer trunk line. It is determined that the appropriate mitigation for the conflict is to split the trunk line into two smaller pipes that are installed around the utility. It is acceptable for all of the following to be included in the same Change Order:

- Monetary adjustments resulting from quantity changes for existing pay items and the addition of new pay items required to construct the revised storm sewer structures around the existing utility.
- Time adjustments to increase or decrease planned closure periods, intermediate completion dates, and the contract completion date as required for construction of the revised storm sewer facilities.
- Scope or design changes consisting of revised plans and new specifications required to construct the revised storm sewer.

It would <u>not be acceptable</u> to include a monetary adjustment associated with changing the pavement marking material throughout the contract area from paint to thermoplastic on the above noted Change Order. The type of pavement marking materials is not affected by the revised storm sewer layout. A separate Change Order would be required to document the change in pavement marking material.

2.19.5 Reason Codes

Reason codes are used to categorize Change Orders so that the Department can track the cause of changes, assess the extent and source of accountability, and work to minimize similar changes on future contracts.

Each Change Order requires selection of a reason code from the drop-down menu within the AWP Change Order module. Only one reason code may be selected per Change Order. The AE and FE assigned to the District are available for guidance regarding selection of the proper reason code for individual Change Orders.

Below is a list of the available reason codes and their sub-categories:

REASON CODE	SUB-CATEGORY
Errors and Omissions	Design/Plan Related Specification Related Special Provision Related Environmental Related Item Related Permits Related Quantity Related, Minor Quantity Related, Major R/W Related Geotechnical Related Traffic Control Related Utility Related Railroad Related Constructability Related
Scope Changes	Work Outside Construction Limits Work on Private Facilities Project Acceleration Project Upgrades Material Related Added Quantities/Items Deleted Quantities/Items
Changed Conditions	Constructability Related Permits Related Environmental Related Materials Related R/W Related Geotechnical Related Utility Related Railroad Related Weather Related Quantity Related

Payment Adjustments	Quality Related Material Related Contract Liens Related
Incentive/Disincentive	Contract Completion Intermediate Completion Closure Times Cost Reduction Incentive A+B Contract A+B+C Contract
Standards/Specifications Change	Time Related Monetary Related Time and Monetary Related Specification Change Only
Final Quantity Adjustment	
Damage to State Property	
Contract Renewal	
Maint. Of Traffic Safety Improvements	
Emergency Work	

- **Errors and Omissions** - Change Orders are often required because contract documents include incorrect information, or the documents omit an element required to construct the overall contract in accordance with its original scope. The Contractor is entitled to consideration of monetary and time adjustments in situations involving errors and omissions. The PM needs to be informed when errors or omissions are found in a contract so they can help with the resolution of the issue and involve the Designer early in the change order process. In this way, the Designer may be held accountable for extra costs or damages that are involved on the project, if the errors or omissions arise from the Designer's negligence. The key to using the Errors and Omissions reason code is that the situations giving rise to the reason for the extra costs, arising from the Designer's negligent errors or omissions, should have been caught prior to contract letting. If the problems could not have been known ahead of time, through reasonable due diligence, then the reason codes selected for the Change Order will, most likely, be from the Changed Conditions section.

  Design/Plan Related: This reason code is used when there is a problem with the design/plans on the project. Examples of this may be that the

wrong size drain pipe was called for on the project and it has to be changed to a new size pipe which could require new items for pipes and potentially inlets and manholes.

Specification Related: This reason code is used when the contract specifications did not adequately cover a need on the project. An example of this would be where there is an item in the itemized proposal and there is not an item in the specifications that matches or describes this item.

Special Provision Related: This reason code is used when the special provision of the contract does not adequately cover the work in the contract for which it is meant to cover. An example of this could be that a special provision specifies that the only products that you can use to build the work are found to not meet the requirements of Buy America and because of this extra costs were incurred and/or not participated in by FHWA.

Environmental Related: This reason code is used when an issue involves things that are environmental in nature that were overlooked in the contract documents. For example, an underground storage tank is found on newly purchased property and the designer should have been able to tell that it was there utilizing reasonable due diligence but did not show it in the contract documents or give a way to handle its removal. Evidence of this could be that there are visible signs at ground level that the tank exists beneath the surface. In this case, one might also consider the Design/Plan Related reason code because it was left off the plans. Such a situation should be viewed in a manner that the reason code that best represents the situation should be used. In this case, it is an omission from the plans, but because it is environmental in nature, this reason code is more exact in description and should be used. As additional information, this situation would merit a reason code of Changed Condition Environmental Related if a tank was found, but there was no means to tell that it existed other than discovering it during excavation. Another example would be if there was a storm water management plan shown on the plans but no items were placed in the itemized proposal to cover the work.

Item Related: This reason code should be used for items that are missing from the contract and the design would dictate that they be in the Itemized Proposal. For example, this reason code could be used if an HMA overlay was being placed that required that the existing surface be milled first and there was no item in the contract to cover the work.

Permits Related: This reason code should be used when extra costs are incurred because a permit was not obtained for the contract either by the Design Consultant or by INDOT.

Quantity Related, Minor: This reason code should be used when there is a quantity increase or decrease that is caused by a mistake made by the designer of the contract and the result was less than 5% of the original contract award amount or $250,000.00 whichever is less. An example of this would be where the item for HMA surface overran on a project because the designer did not add in the quantities for the S-lines on the project.

Quantity Related, Major: This reason code should be used when there is a quantity increase or decrease that is caused by a mistake made by the designer of the contract and the result was more than 5% of the original award amount or $250,000.00 whichever is less. An example for this could be the same as above in minor.

Right-of-Way Related: This reason code should be used when extra costs are incurred because of ROW problems. An example of this could be when there was only enough ROW purchased for the building of the face panels for an MSE retaining wall but the amount of ROW did not allow for the placement of the straps behind the wall.

Geotechnical Related: This reason code should be used when extra costs are incurred which are related to soils information on the project. An example of this is when the geotechnical report for the project says that the project will need to be undercut by 2 feet and the material replaced with aggregate No. 53 and the designer had this information during design but did not take this into account in the plans and then the costs for the undercut and aggregate had to be added by change order.

Traffic Control Related: This reason code should be used when extra costs are incurred related to problems with traffic control on the project. An example of this could be when a contract requires lane shifts and lane closures and no items were included in the contract to cover temporary pavement markings.

Utility Related: This reason code should be used when extra costs are incurred related to problems with utilities that should have been foreseen by the designer using reasonable due diligence in preparing the plans. An example of this would be where there is a conflict between an existing water line and a new sewer line to be installed where the water valve present in the area can be seen and there was

no prior coordination done with the water line owner to move the line. If the water line existed in the area and could not be seen and is only found after installation of the water line has started, the reason code for a changed condition should be used.

Railroad Related: This reason code should be used when extra costs are incurred related to problems with railroad concerns that should have been able to be foreseen by the designer. An example of this would be if the plans show constructing a temporary railroad bridge and shifting train traffic to the new bridge that will require that there can be no train traffic for 2 weeks while the tie-ins are completed, but the railroad determines that they cannot allow a 2-week shutdown of train traffic at that time. This situation should have been coordinated prior to letting and should have been resolved. This will now cause a delay for the contractor and extra costs to be incurred. In addition, note that these extra costs and the corresponding time extension may potentially be non-participating by FHWA.

Constructability Related: This reason code should be used when the plans did not take into account an obvious physical condition that exists on a project and then the condition requires extra costs to be incurred to remedy the situation. An example of this would be where the plans call for common excavation be used to build the required embankments for phase 1 of a project but the common excavation exists under the roadway which will be used to maintain traffic during phase 1 and because of this it is a requirement to pay to bring in borrow on the project and then to remove and waste the common after phase 1 is complete.

- **Scope Changes -** Scope changes include situations where the Department determines that it is necessary to either add items to the contract that are unrelated to the current scope, delete items related to a portion of the current scope, or increase or decrease the area over which the current contract scope will be constructed. Scope changes are the responsibility of the Department and consideration of monetary and time adjustments is warranted. Scope changes may not be implemented without the approval of the PM. Approval from the PM must be included in the allotted section of the Change Order Form. As noted above, such scope changes are generally non-participating unless a Cost Effectiveness Finding has been approved. Scanned e-mail or other documentation from the PM is also acceptable once included as an attachment for the Change order.

Work Outside Construction Limits: This reason code should be used when work is performed outside of the construction limits of the contract. Outside of the construction limits should be taken to mean

off the ROW or beyond the station limits of the work area in the contract. Note that traffic control items that are needed for pre-warning are not a part of the discussion under this reason code. This is important because when work beyond the construction limits of the contract is undertaken, this work is outside of what has been approved in the NEPA documents. An example of this would be if concrete patching is required to be added to the contract that is a mile from the end of the contract. Another example would be where the HMA overlay on the project was to be stopped before entering an intersection and it was decided to continue the HMA through the intersection because the pavement was rough. In both of these cases this work should not take place unless approved by the Project Manager.

Work On Private Facilities: This reason code should be used when work is performed for items that are not owned by INDOT or the LPA and are not a part of the original contract. An example of this might be where a utility line running through the project is in the way of the work that is needed to be performed but it is decided not to wait for the utility to move the facility, so a determination is made to move it for them (with their permission).

Project Acceleration: This reason code should be used when a determination has been made to make up lost time on a project, which could be caused by issues that delayed the project. One example of this would be if a very rainy construction season occurred and a time extension is warranted that would move the completion of the project into the spring but commitments have been made to have the work completed before the end of the year.

Project Upgrades: This item code should be used when a determination has been made to add an element to a project or enhance an existing element on a project. An example of this would be to add a conduit to the project in order to place communication cable through it at a later date. Another situation would be if lighting items already exist in the contract but a determination was made to make the light poles decorative in design. It is important for the PM to be involved in project upgrades to ensure that the costs for the upgrades are accepted by the responsible entity.

Material Related: This item code should be used when a determination has been made to change a type of material that is being used to construct the contract. An example would be if the road was designed to use an HMA pavement and a determination was made to change the road to PCCP.

Added Quantities: This item code should be used when a determination has been made to add additional quantities of an item that would utilize the item in a way or in an area in which it was not approved for use in the original scope of the project. An example of this would be if the original scope of the project included sidewalk on only one side of road and it was then decided after the letting to add sidewalk to the other side of the road as well. This may make sense from a cost standpoint since the Contactor is already in the area and it would not be a challenge to add the additional quantity. However, it should be noted that because the scope of the original project included sidewalk on only one side of the road, adding this would be a scope change and may not get approval from FHWA for participation.

Deleted Quantities: This item code should be used when a determination has been made to delete quantities of an item and thus construct a project that does not fulfill the original scope of the contract. An example of this could be when the original project scope included sidewalk on both sides of the road and because of other overruns on the contract it was decided to delete the sidewalk from one side because there is not enough money left to complete the work. However, it should be noted that if the sidewalk is not built on both sides as originally approved, FHWA could consider not funding the entire project since the original scope is not being fulfilled.

- **Changed Conditions -** Changed conditions are defined in Section 104.02 of the SS. They include differing site conditions, suspension of work by the Department, and significant changes in the character of the work.

  Differing site conditions and what constitutes them are described within 104.02(a) of the SS and include two basic conditions:

  1. subsurface or latent physical conditions encountered at the site differing materially from those indicated in the contract or

  2. unknown physical conditions encountered at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract.

  They are the most common type of changed conditions encountered in the field. In most situations, it is the Contractor that discovers a potential differing site condition. The Contractor is required to provide notice prior to performing any work at the affected location. It is the Department's responsibility to verify whether the situation represents a differing site condition and to determine the

required work, if any, to mitigate the problem. Examples of differing site conditions include the presence of an underground storage tank that is not indicated on the plans, discovery of a peat deposit at a location where peat is not anticipated, and discovery of an existing concrete base under the asphalt pavement on a contract that includes no pay item for pavement removal.

Suspensions of work, included in 104.02 of the SS, are related to suspensions directed by the Department for the benefit of the Department or the traveling public. Examples of these suspensions include suspensions of work for holidays or community festivals not noted in the contract documents. Suspensions of work related to poor workmanship, contract breaches by the Contractor, or operational problems of the Contractor are not covered by changed conditions.

The most common occurrence of significant changes in the character of the work is related to a major pay item that has a quantity increase, or decrease, by more than 25% from the original planned quantity. Typically, increases in quantities justify a lower unit price and reductions in quantities justify a higher unit price. Consideration for monetary and time adjustments is usually required when changed conditions are encountered on a contract.

Constructability Related: This reason code should be used when there is an issue that changes how the project is to be constructed. An example of this would be where the contractor bid to build a bridge with the road closed to traffic and it was determined after letting that the contractor would need to build the bridge under traffic.

Permits Related: This reason code should be used when the cause of the changed condition and extra costs are permit related. An example would be if the contract stated that the permit would be obtained so that the contractor could start work on August 1st but it was not obtained until December 1st. This could potentially cause a project delay and extra costs if the work is a controlling item.

Environmental Related: This reason code should be used when the reason is environmental in nature. Examples would be finding an underground storage tank, historic artifact, asbestos, contaminated soil or an endangered species, any of which were not known to exist at the time of letting.

Material Related: An example would be encountering a different material than anticipated in the plan documents such as rock at an elevation where soil was expected. This would require a change to incorporate rock excavation.

Right-of-Way Related: This reason code should be used when the issue

is related to the availability of ROW on the project. An example of this is when the ROW is supposed to be already cleared so that the contractor can access it to work and it is found that it is not cleared and causes a delay or extra cost. It should be noted that delays in availability of ROW are not reimbursable by the FHWA.

Geotechnical Related: This reason code should be used when there is an unforeseen geotechnical issue found on the project. An example would be where the soils report and borings do not show peat in an area but it is in found where the end of a tie back is to go and will no longer work and causes delay or extra costs.

Utility Related: This reason code should be used when there is a changed condition caused by a utility related issue. For example the contract book states that a utility will be relocated 30 days after the ROW is staked and cleared but it takes the utility 100 days which causes extra cost and/or extra time to be needed on the contract.

Railroad Related: This reason code is used when extra costs are incurred related to railroad work on a contract where it is a changed condition to the contract but that could not have been foreseen beforehand by the designer under normal due diligence. An example of this would be where the contractor tried to get railroad flagmen as required by the contract but the railroad for whatever reason would not supply them which causes a delay to the contract and thus extra costs.

Weather Related: This reason code should be used when the above normal inclement weather days for the year exceed the yearly allotted number of days in the Standard Specifications. This would normally be needed for time extension purposes only as weather is normally non-compensable. However, there could be times where the contract may be written that would allow compensation.

Quantity Related: This reason code should be used when there is a large change in the quantity of either a major or minor item due to unforeseen circumstances that, by specifications, would allow a change in the unit price for the item. An example of this would be that during a resurface contract it is required to remove the overlay and perform pavement patching and when the overlay is removed, the pavement is in worse shape than the pavement cores led the designers to believe and additional patching work is required.

- **Payment Adjustments** - Payment Adjustments reason codes are used when there are credits to the contract or extra payments to the Contractor. This would include

overruns to the 1 DOLLAR unit cost items usually found in the beginning of the itemized proposal, with the exception of Liquidated Damages which is a part of Incentive/Disincentive and are self-explanatory. Additionally, Payment Adjustment reason codes should be used for Quality Adjustments for HMA, Storm Water Management, Temporary Traffic Control, Failed Materials, Binder Adjustments, Liens, etc. Payment Adjustments reason codes will fall into one of the following sub-codes:

Quality Related: Examples include HMA Adjustments, Storm Water Management Adjustments, Temporary Traffic Control Adjustments, Failed Materials, For example if there are adjustments that need to be made to the payment to the contractor after the pay factors are reviewed in accordance with 401.19 for HMA then this reason code will be used. This would be the same for concrete pavements in accordance with 501.28. Other examples of when this reason code will be used are when either storm water management devices or traffic control devices do not meet the quality standards within the specifications. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

Material Related: An example is Binder Adjustments which are used when the contractor accepts this contract provision at letting time and then the price for HMA binder goes up or down by enough that the provision is invoked.

Contract Liens Related: This reason code is to be used when the item for contract liens is utilized. This item is used when INDOT is required to hold or payout money when there is a lien brought against a contractor because they are not making payments. The non-payment could be to sub-contractors, suppliers or others. When this occurs, this code will be used.

- **Incentive/Disincentive** - Incentive and Disincentive language is included in contracts to provide a financial motivation to a Contractor to complete work associated with a closure period, an intermediate completion date, or an early contract completion date. If such language is included in a contract, a Change Order is required to incorporate additional compensation earned by the Contractor, due to early completion of the required work, or a credit to the Department, in the form of Liquidated Damages, resulting from late completion of the required work. In addition, this reason code is also used for Change Orders which are necessary to incorporate a Contractor submitted Cost Reduction Incentive, CRI, into a contract in accordance with 109.04 of the SS.

  Contract Completion: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing

the contract work before or after the contract completion date shown on the proposal page.

Intermediate Completion: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work required before or after an intermediate completion date as shown on the proposal page of the contract.

Closure Times: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work before or after the allotted number of days for a closure as shown on the proposal page.

Cost Reduction Incentive: This reason code is used when an incentive payment is made to the contractor for a percentage of a cost savings to the contract for an idea presented by the contractor. It is made in accordance with 109.04. An example of this would be where a 3-span bridge is to be constructed and the contractor presents a new design for the bridge that uses post tensioning elements and is only 2 spans and results in a savings of $500,000.00. If the redesign is approved, then the Contactor and INDOT split the savings and the contractor is paid on a change order using this reason code.

A+B Contract: This reason code is used when the incentive payment or liquidated damage credit is a result of either completing the contract work required on an A + B Contract. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

A+B+C Contract: This reason code is used when the incentive payment or liquidated damage credit is as a result of either completing the contract work required on an A+B+C Contract. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

- **Standards/Specifications Change -** The Department may elect to incorporate a new standard detail or specification change into a contract after it is let. In these situations, a Change Order is required to modify the contract to add the new standard detail or specification. There may be monetary or time adjustments associated with these types of Change Orders. The Standards/Specifications Change reason code should only be used when the directive for this change comes from Central Office normally as part of a Construction Memorandum. If a change is being made to a specification, special provision or standard by any other means, it would be a changed condition to the contract and fall under another reason code.

- **Final Quantity Adjustment -** This reason code is used on Change Orders which are required when the overruns or underruns for individual pay items result in monetary adjustments that exceed the thresholds included in the Change Order Policy. These are sometimes referred to as balancing Change Orders.

- **Damage to State Property** - This reason code is used on Change Orders that are a result of payments made to the contractor for repairs that are made to State property, normally as a result of a traffic accident. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

- **Contract Renewal** - This reason code is used when the change order is for the renewal of the contract as allowed in the special provisions. Contract renewals are generally for an additional 365 days at a time for the number of renewals as allowed in the contract. These contracts are usually for mowing and traffic signal and lighting maintenance but could be for other types as well.

- **Maint. Of Traffic Safety Improvements** - This reason code is used for improvements made to the Maintenance of Traffic for the safety of the traveling public and field personnel. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

- **Emergency Work** - This reason code is used for any repair work that requires immediate attention. This reason code will track costs and should not be considered towards the On Budget metric. The cost associated with this work can be tracked and therefore not counted against the "On Budget" metrics.

2.19.6 Recoverable and Non-Recoverable Change Orders and Delta Costs

The PEMS is required to document and classify all errors and omissions, E&O, change orders as either having recoverable or non-recoverable costs. Recoverable and non-recoverable information should be included in the Explanations portion of the Change Order **General** tab within AWP. The determination of the additional costs should be made prior to generating the change order.

PMs should be notified of all E&O change orders to help with resolution and to determine if the Consultant Designer may be held accountable for extra costs arising from the E&O. The PM, PEMS, and Consultant Designer may jointly collaborate to review and mitigate potential additional costs. If the PM decides the Consultant Designer is responsible for the additional costs caused by E&O (also known as the delta or premium costs), these costs are considered to be recoverable and the PM may decide if the Department will move forward with the collection of those costs from the Consultant Designer.

One example of how to figure the delta or premium cost is as follows:

The Consultant Designer incorrectly calculated the amount of QC/QA-HMA, 3, 58, Surface, 9.5 required to build the contract. They used an incorrect lay rate of 65 pounds per square yard instead of the required 165 pounds per square yard. Because of this mistake, the Consultant Designer listed a quantity of 5,910 tons of material needed when in reality the quantity needed/listed in the contract should have been 15,000 tons. The Contractor bid $85.00 per ton for the 5,910 tons shown. After a review of this Contractor's bid history for this item, it was found that if the correct quantity of 15,000 tons had been in the contract at time of letting, the Department should have received a bid price of $80.00 per ton for this item. Therefore, the difference in cost of construction of the contract is the following: (15,000 tons x $85.00 per ton) – (15,000 tons x $80.00 per ton) = $75,000.00 = delta or premium cost.

In this case, the delta or premium cost of $75,000.00 is the potential amount that the Department could recover from the Designer for the E&O. If this quantity change qualifies under 104.02(c)2 or 109.03 of the SS and the price is renegotiated with the Contractor, the renegotiated price would need to be reflected in the delta or premium cost to be collected from the Designer.

The cost to add the extra 9,090 tons at the contract unit price, $772,650.00, would need to be added on a change order with a reason code for E&O, Quantity Related, Major. The change order should be eligible for FHWA participation as long as this extra cost was not caused by "gross negligence". The change order, along with the information on the $75,000.00 delta or premium cost, should be communicated to the PM for consideration as part of the E&O Process.

Another example of how to figure the delta or premium cost is as follows:

The Designer did not properly coordinate the removal of the utilities present at the project site. The Designer did not take into account that there was a large fiber optic duct bank running where the new drainage system had to go on the project. (In this case it should be noted that it is being assumed that the Designer performed the utility coordination on the project.) Because of the Designer's lack of coordination and due diligence, the Contractor was delayed in starting the project by more than 6 months. As a result, the Contractor incurred a substantial increase in their project overhead costs and incurred escalated labor, equipment, and material costs in the completion of the project. The documented additional costs incurred amounted to $2,000,000.00.

The PM should have involved the Designer early on to see if there was a way to mitigate the problem by possibly redesigning the drainage system or by some other method. In this example, it is assumed that this was done and that the extra costs were unavoidable.

In this case, the calculation is straight forward and the entire $2,000,000.00 is an extra cost to the contract that could have been avoided if the Designer had performed the utility coordination as expected before the letting. Therefore, the entire $2,000,000.00 is the delta or premium cost that the Department could recover from the Designer for E&O regarding the utility coordination.

This extra cost would need to be added on a change order with a reason code for E&O, Utility Related, and would be marked as recoverable. In this case, the extra cost would not be considered eligible for FHWA participation.

In this example, it should also be noted that the assumption is being made that the Designer performed the utility coordination for this project. On other projects, the utility coordination could be performed by another consultant/coordinator or could be performed "in house". Therefore, it is extremely important to involve the PM early in the process. The PM will know who is performing this function on the contract and the amount and level of coordination that was required under the contract.

If the PEMS is unsure if an E&O is potentially recoverable or unsure of how to figure the delta or premium costs incurred because of an E&O, the issues may be discussed with the PM, the AE, the Central Office Field Engineer for the District, and/or Department's litigation attorneys.

2.19.7 Change Order Approval Authority

The Change Order Policy assigns Department approval authority based on the magnitude of the overall monetary or time adjustment involved. If a Change Order includes both monetary and time adjustments, the approval authority is the higher authority required for approval of either the monetary adjustment or time adjustment if considered separately.

The approval authority for a Change Order is based on the monetary adjustment and time adjustment associated with that document. The Change Order approval authority is based on the adjustments of each individual Change Order and is not cumulative throughout the Contract. It is possible for Change Order No. 1 to require SCE approval while it would be appropriate to approve Change Order No. 2 at the PEMS level.

Work associated with a Change Order cannot begin until documented approval is provided by the approval authority and has been coordinated with the PM. In addition to the Department approval authority, LPA documented approval is required for LPA contracts and FHWA documented approval is required on contracts specifying FHWA change order approval.

Where the Change Order document cannot be completed prior to work being performed, a work order and written documentation from the approval authority is required prior to work commencing. When major changes are involved, prior approval will be required, as discussed in 2.19.8.

There are three situations which require the documented approval of the DCM in addition to the approval authority based on the magnitude of the monetary or time adjustment. The situations are described below:

- Change Orders which involve work on property, equipment, buildings, or other items owned by the State of Indiana and not included in the original or modified contract.

- Change Orders which involve the purchase of equipment that will remain the property of the Department after completion of the contract.
- Change Orders which establish or delete intermediate completion dates, closure periods, etc.

2.19.8 Major Change Order Prior Approval

Prior approval is required before work can start on changes which are considered major changes. Major changes are significant changes to the cost, character, or scope of a contract which require a determination of whether the change would benefit from being competitively bid. These are defined as:

- Cost increase of 5% of the contract award amount or $250,000.00, whichever is less.
- Time extensions due to scope changes, or
- Changes in scope as given below:
    - Changes in contract beginning and ending locations.
    - Scope revisions due to a CRI proposal.
    - Alterations to the intent or scope of the contract or character of the work.
    - Revisions to the geometric design of the mainline roadway, ramps, frontage roads, or crossroads.
    - Revisions to the structural section of the pavement including, but not limited to, subgrade, subbase, performance graded binder grade, pavement type, pavement depth, individual pavement courses and aggregate designations, type, or quality of materials to be furnished, such as changing the individual aggregate base to an asphalt concrete material.
    - Additions, deletions, changes, or relocations to bridges or structures that affect the functional scope and intent of the approved design.
    - Revisions that result in new environmental impacts, changes in previously permitted activities, or reductions in environmental mitigation measures provided for in the contract.
    - Changes to limited access control lines.

All other changes that do not fall under the above categories are processed as minor changes and do not require prior approval.

Prior Approval Procedure. The PEMS should forward information related to the required Change Order work; the recommended monetary adjustment amount including all affected pay items,

quantities, and unit prices; and the recommended time adjustment to the AE and PM via e-mail.

Within the email, include information related on how the recommended monetary and time adjustments were determined to be appropriate for the proposed scope of work. Examples of information to include are review of bid history, schedule information, any additional information provided, etc.

Attach additional documentation provided by the Contractor in the e-mail so it can be referenced by the approval authority. If the approval authority is above the AE level, the AE will review the packet prior to sending it to the DCD, and the process will be repeated by the Department approval chain of command until the information reaches the appropriate final approval authority. Each individual in the approval chain of command should indicate his or her concurrence with the recommendations until it reaches the final approval authority. This will ensure that everyone who will be involved in the Change Order approval process is informed regarding the situation and supports the recommended solution.

The Department approval authority will review the forwarded packet. If it is acceptable, the approval authority will provide the PEMS with documented approval of the Change Order via e-mail. After receiving Department, LPA, and FHWA approval via e-mail, if applicable, the PEMS will direct the Contractor via a Work Order to begin Change Order work. If additional information is required prior to Change Order approval, the approval authority will notify the PEMS and copy all in the approval chain via e-mail of the desired additional information. The PEMS will provide the desired information to the approval authority via e-mail and copy all in the chain of command below the approval authority.

If anyone in the approval chain of command does not agree with the recommended Change Order, it will be necessary to notify all individuals who have previously concurred with the recommendation, including the PM, of the denial and to determine the appropriate course of action. The individual who denied the recommendation may provide an alternate solution or reject the Change Order altogether. It will be necessary to work with the PM to seek the input of the appropriate individuals to verify the adequacy of an alternate solution or whether it will be necessary to perform this work on a future contract.

After all required Department and outside agency documented approvals are obtained, the Work Order sent to the Contractor should include the following information:

1. Date
2. Change Order Work Elements
3. Affected Existing Pay Items and Estimated Quantities
4. New Pay Items Established, Associated Quantities, and Unit Prices
5. Estimated Monetary Adjustment
6. Contract Time Adjustments to Affected Closure Periods, Intermediate Completion Dates, and Contract Completion Dates (if applicable)
7. Date Work is Expected to Begin

A sample Work Order is provided on the Construction Information website at: https://www.in.gov/indot/div/construction.htm.

Verbal Prior Approval on major changes may be obtained if an emergency or unusual condition exists. This verbal Prior Approval will be documented by the PEMS with an email.

2.19.9 Existing Contract Pay Item Overruns and Underruns

The Change Order Policy allows for individual existing contract pay items to overrun or underrun without processing a Change Order if both of the following conditions are met:

- The overrun or underrun of the pay item does not result from a change in scope of the contract.
- The monetary adjustment associated with the overrun or underrun of the existing contract pay item is less than $20,000.00.

If either of the above conditions is not met, it will be necessary to execute a Change Order to document the monetary adjustment associated with the overrun or underrun of the existing contract pay item.

Once a Change Order is executed to document a monetary adjustment related to the overrun or underrun of an existing contract pay item, a subsequent Change Order is not required until an additional monetary adjustment of $20,000.00 related to overruns or underruns of the pay item is reached, unless it is due to a change in contract scope.

2.19.10 Contract Scope/Design Element Change Orders

The Change Order Policy, located as an attachment to Construction Memo 22-08, requires that Change Orders involving changes to the scope or design elements of a contract are coordinated with the PM. The Change Order must receive approval from the party responsible for the design element involved in addition to the Change Order's required approval authority. This is necessary to ensure that contract specific design criteria or Department commitments made prior to construction are not changed without the input of personnel familiar with these issues. The Change Order Policy lists several such items which are considered changes in scope or design elements.

2.19.11 Determination of Required Change Order Work/Work Order Issuance

For situations involving a changed condition or any other change to the work initially involved in the original contract, it is the Department's responsibility to grant approval to the Contractor before additional work associated with a change order is performed. A Department signed Work Order is the proper method to authorize a Contractor to perform the work prior to full execution of the official change order document. A sample copy of the Department's Work Order can be found on the Department's website.

In order to begin the process of generating a change order with correct documentation, and prior to issuing a Work Order, the following steps are required:

- **Notify AE of Need for Change Order -** The AE needs to be notified of situations that could require a change order. Discuss the situation with the AE to determine if additional work and a change order would be necessary. The AE can provide assistance and direction with the change order process and can help determine what documentation will be necessary. They can also provide guidance on proper notification and communication with the PM for the particular situation.

- **Notify PM of Need for Change Order -** In order to properly manage the contract, the PM must be notified when change order situations occur. The notification should include the results of the discussions with the AE regarding the work associated with the change order. The PM should be kept informed as the change order work plan is developed and finalized.

  In situations where a change order is necessary due to a design error or omission made by a designer, the PM will initiate contact with the Designer for input regarding the required change order work. It is important that the PM is notified by the PEMS promptly of the error and omissions situation. The PM will then contact the Designer to involve them in developing possible solutions to mitigate the design error or omission condition. The Department's ability to potentially seek reimbursement from the Designer for the additional costs incurred due to the error or omission is based on timely notification of the PM, and the PM making timely contact with that Designer.

- **Obtain a Change Order Request Form –** Direct the Contractor to complete and submit a Change Order Request form, available from the Department's website, when appropriate. The completed form should identify unique circumstances, possible mitigating options, and provide an initial summary of the associated costs. The PEMS may require amendments to the form based on the Department's cost verification procedures described below.

- **Determine the Work Elements for the Change Order –** The change order work element details and associated pay items should be determined based on the PEMS' understanding of the particular situation, discussions with the AE, PM, Designer, and the information provided within the Contractor's submitted Change Order Request form. When available, information from other individuals or parties involved in the extra work should also be utilized in determining work elements and pay items.

- **Determine the Change Order Monetary and Time Adjustments -** Once the change order work is determined and all required Contractor submittals are received, it is necessary to establish the monetary and time adjustments associated with the work. For work covered by existing contract pay items, the monetary adjustment is based on the estimated quantities and the existing

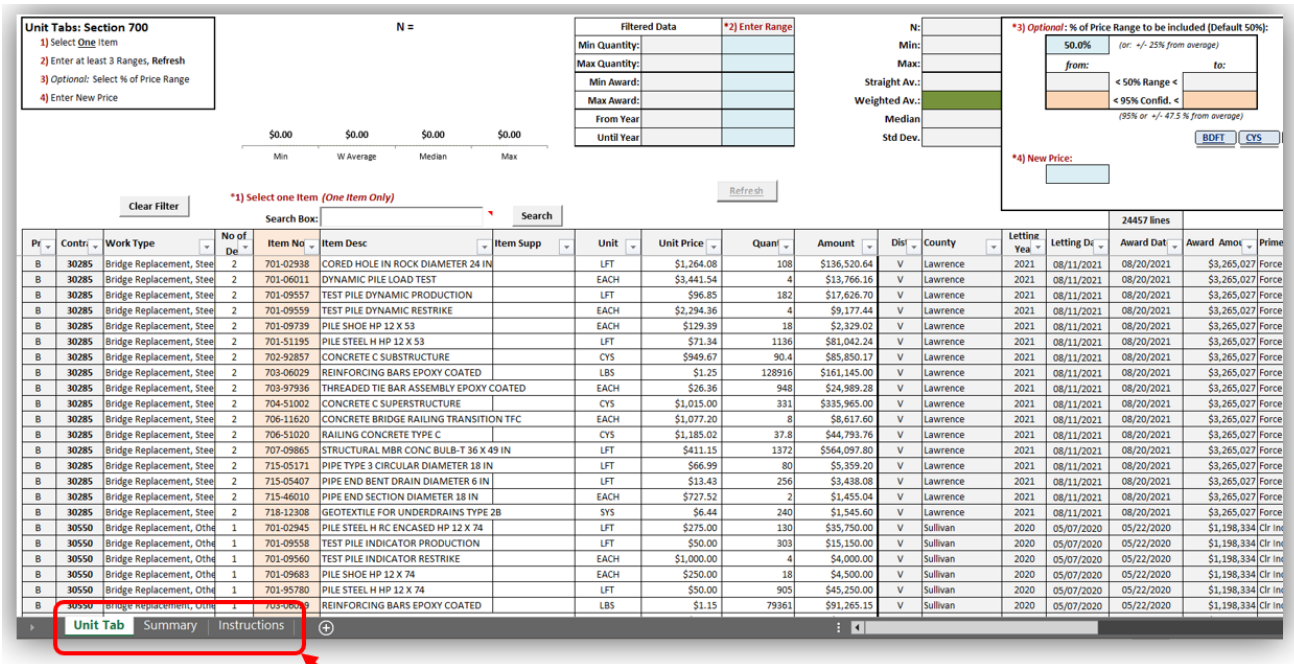
contract unit prices. For work involving new pay items, the monetary adjustment is based on the estimated quantities and agreed upon unit prices. The copy of the Change Order Flow Chart is available at: https://www.in.gov/indot/doing-business-with-indot/home/construction-information

If the Contractor's proposed time adjustments apply to closure periods, intermediate completion dates, incentive/disincentive dates, etc. as well as the contract completion date, for approval purposes the requested time adjustment is the maximum duration. For example, if a Contractor requests time adjustments of 10 days to Intermediate Completion Date 1, 15 days to Intermediate Completion Date 2, 15 days to Intermediate Completion Date 3, and 15 days to the Contract Completion Date, the magnitude of the time extension request is 15 days.

For situations where a time adjustment is necessary to mitigate a delay which is the Department's responsibility and the mitigation results in application of a portion of the adjustment prior to December 1 and the remainder is applied after March 31 in accordance with the SS, the magnitude of the time adjustment is the number of calendar days that the intermediate completion or contract completion date was shifted, including the period starting December 1 and ending March 31. For example, if a 30 day, Department responsible delay was experienced on a contract with an intermediate completion date of November 15 and the SS permit the exclusion of the period beginning on December 1 and ending on March 31, the remaining fifteen days of the adjustment would be applied from April 1 to April 15. In this situation, the time adjustment requiring approval would be 151 calendar days, or 152 calendar days if a leap year is involved.

- **Perform a Cost Verification for New Pay Items** – A cost verification must be performed by the Department on all new pay items of extra work in accordance with Federal Code of Regulations, 23 CFR 635.120(e). The Department's Item Bid History spreadsheet should be the first step in the cost verification process.

  a) Item Bid History – The Department's Item Bid History spreadsheet utilizes a database of winning contract bids for all Department contract items over a span of several years. The Item Bid History spreadsheet process and associated filters can be used to obtain a meaningful representation of item unit prices based on particular contract situations. The filtered result establishes a weighted average within a confidence interval that can be compared to the Contractor's submitted price. Below is a sample of the spreadsheet's interface for the 700 section for structure pay items.



Item Bid History spreadsheet tabs

Currently, the Department's Item Bid History spreadsheet is accessed through the SiteManager Reports page and includes the following tabs located at the bottom left of the page:

1. **Unit Tab** – The main working area of the spreadsheet. Within this page, item identification, item filtering, and statistical confidence range calculations are performed.

2. **Summary** – This contains a summary of the item filtering and statistical confidence range calculations that have automatically been calculated on the Unit Tab page. The page also contains the forecasting tool which evaluates unit cost ranges for specific quantity values. Additional filtering is still available from within this page. The Summary page is intended to be saved and attached to the change order as part of cost verification documentation once the unit price comparison process has been completed.

3. **Instructions** – Provides basic instructions on the use of the spreadsheet. The page is for information only and acts as an aid to completing the spreadsheet.

The cost verification process begins by checking the Item Bid History spreadsheet to determine which of the following situations apply:

1. If there is no bid history for the pay item.
   If no item bid history exists, use one of the processes described under “Cost Analysis” explained below.

2. If there is a bid history.
   If there is a bid history, filter the data for contract conditions. The unit tab page contains 4 basic steps to achieve results. The steps are identified in the top left corner of the spreadsheet. These steps must be processed for the spreadsheet to function correctly and provide the appropriate unit price results.

3. If N < 10.
   If the N value is less than 10, it is statistically insignificant, and another method of cost verification should be utilized. It may be better to use one of the processes described under “Cost Analysis” explained below.

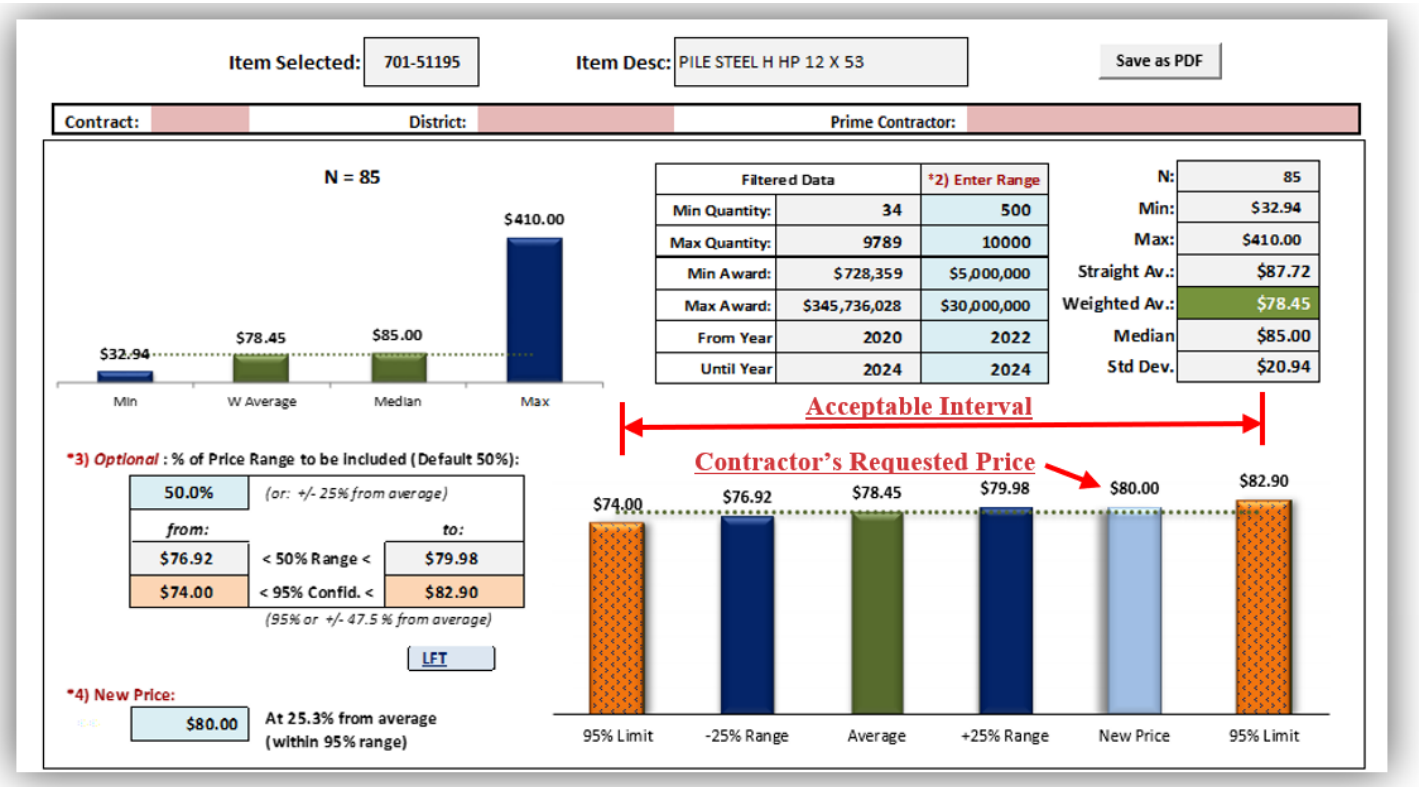
4. If 10 < N < 30.
   If the N value is greater than 10 but less than 30, the unit price data returns cannot be directly utilized, but still may provide usable cost verification information. If the Contractor’s requested unit price is equal to or less than the weighted average, then the price is acceptable, and the cost verification process is complete. The PEMS must attach a copy of the Department’s Item’s Bid History summary page to the change order as cost verification documentation.

5. If N < 30.
   If an N value is less than 30. If the value is close to 30, the previous filters can be cleared and search filter can be expanded to reach an N value of 30 or greater.

6. If N ≥ 30.
   N is the number of data lines returned for a filtered search within the Item Bid History spreadsheet. This value can be found above the min, average, and max graph. If the N value is greater than 30, the Item Bid History spreadsheet has an appropriate number of unit price data returns to be statistically significant and can be utilized for cost verification. Proceed to “Cost Comparison” below.

7. **Cost Comparison.**
   The filtered result establishes a weighted average unit price within a 95% confidence interval, or in other words, an acceptable unit price range.

In the example below, the acceptable interval is identified for values between $74.00 and $82.90. If the Contractor's requested unit price is within or below that interval, the unit price would be acceptable, and cost



verification is complete. The Contractor's requested unit price is $80.00 and is within the acceptable interval and is acceptable. The cost verification is complete. The PEMS must attach a copy of the Department's Item's Bid History summary page to the change order as cost verification documentation.

8. **Cost Comparison with Amendment.**
   If the Contractor's requested unit price is above the weighted average 95% confidence interval, the Contractor should be directed to amend the unit price, or to include additional information to clarify specific contract circumstances that justify the greater price. If the amended unit price is accepted, the item Summary page and the Contractor's unit price request, as amended, should be attached to the change order as item cost verification documentation and the cost verification is complete.

b) Cost Analysis – If the Department's Item Bid History indicates limited (N < 10) or no item bid history, data obtained from the spreadsheet should be

used as informational only and one of the following cost analysis methods should be utilized for cost verification of requested prices.

1. ***Estimated Item Cost Less Than or Equal to $20,000***
   When verifying costs for new and unique items of approved extra work with an estimated item costs of less than $20,000 and having insufficient bid history, the Contractor's submitted Change Order Request form with any requested supporting cost breakdown documentation should be reviewed for acceptance by the PEMS and, as needed, the AE. The Change Order Request form should be reviewed for extra work identification and description, mitigating options, and cost accuracy.

2. ***Estimated Item Cost Greater Than $20,000 but Less Than or Equal to $250,000***
   When verifying costs for new and unique items of approved extra work with an estimated item cost greater than $20,000 but less than or equal to $250,000 and having insufficient bid history, the PEMS and, as needed, the AE will perform a cost analysis validation of the work for comparison with the Contractor's Change Order Request form and any requested supporting cost breakdown documentation. The Department's cost analysis will be documented on the Change Order Cost Analysis Validation form, available on the Department's website.

3. ***Estimated Item Cost is Greater Than $250,000***
   When verifying costs for new and unique items of approved extra work with estimated item cost greater than $250,000 and having insufficient bid history, the PEMS, AE, FE, and the Engineer of Record will work together to provide relevant information in the development of the cost analysis for the Department. All cost analysis input will be documented on the Department's Change Order Cost Analysis worksheet or similar cost estimating worksheet, as approved by the AE. The combined cost analysis information will be used to compare with the Contractor's Change Order Request form and any requested supporting cost breakdown documentation.

   This method can also be utilized when the construction activity components for approved extra work are too significant to track individually. Examples of this might include situations when 50 or more pay items are impacted by extra work, or when there is a complete phase or scope change.

For any of the cost verification methods described above, if the comparison is not acceptable, the PEMS should direct the Contractor to amend the Change Order Request form to provide additional detail on the uniqueness of the proposed work and the associated justification for the requested item price.

The accepted Contractor's Change Order Request form along with the Department's cost analysis should be attached to the official change order as new item price verification documentation.

- **Use of Force Account -** If prices for extra work cannot be agreed upon, change order work can be performed as a force account. The force account option should only be used as a last option to pay for approved extra work. Estimate the monetary adjustment in accordance with force account procedures outlined within the SS. The PEMS must explain the need to utilize the force account process within the change order.

  When utilizing the force account option, there are discussions with the Contractor that are required to occur prior to the agreement and authorization to perform the extra work. These discussions should establish the specifics on issues such as, but not limited to:

  1. Specific individuals that will perform the extra work.
  2. Hourly rates of pay, including fringes and benefits.
  3. Estimated time to complete the extra work including hourly work week and crew size.
  4. Specific bond and insurance premium costs for the extra work.
  5. Estimated quantity and cost of materials to be utilized, including transportation costs.
  6. Individual pieces of equipment to be used for the extra work.
  7. Agreement on the specific equipment rates to be paid.
  8. Appropriate sub-contracting administrative costs, in accordance with the SS, for force account work.
  9. Appropriate mark-ups, in accordance with the SS, for force account work.

In accordance with the SS, the Contractor and the PEMS are required to compare records of the completed force account work at the end of each day. The Contractor may submit a Force Account Daily Record form to the PEMS at the end of each day of work in either a hard copy or digital in pdf format. If the Contractor does not submit a form, one is available for use on the Construction Information website. The Contractor or the PEMS may populate the form with daily quantities of the following items:

a. labor,
b. materials,
c. rented and owned equipment, and
d. subcontractors and haulers.

The form is required to be reviewed and signed at the end of each day by both the Contractor and the PEMS. The PEMS will retain the original signed form and the Contractor will receive a copy of the form.

When completing documentation for force account change orders, the Force Account Daily Record forms for all applicable dates will be compiled and utilized as the basis for final compensation and verification of the Contractor's itemized statements of cost. All associated daily record forms are required to be attached to the change order in AWP along with the Contractor's itemized statements of cost, and any other summary documentation justifying the final force account payment amount.

If the actual force account costs exceed the initial estimate, a subsequent Change Order can be processed to cover the excess costs.

- **Rental Rate Blue Book as Published by EquipmentWatch -** For Contractor owned machinery or special equipment, the rates submitted for extra work shall not be more than those listed in the current Rental Rate Blue Book as published on the EquipmentWatch website. The website provides individual reports for construction equipment. Reports obtained from this site are known as EquipmentWatch Rental Rate Blue Book reports and are used when reviewing extra work in accordance with the SS.

  The Department only recognizes two rates in the report for extra work. The first rate is the FHWA Hourly Rate for active equipment being utilized for extra work. The FHWA Hourly Rate includes both hourly ownership costs and hourly operating costs. The second rate is the Standby Hourly Rate used for equipment standby time during the performance of extra work. Any other equipment on the jobsite that is inactive or unnecessary for performing the extra work is not eligible for compensation.

The Department will only pay for machinery, equipment, or tools with an FHWA hourly rate of greater than $2.00 per hour as listed in the Rental Rate Blue Book published by Equipment Watch®.

The Department will not pay for machinery, equipment, or tools which are not listed in the Rental Rate Blue Book unless there is a documented fair market value of greater than $2,000 per item.

a) **EquipmentWatch Rental Rate Blue Book Report –** The sample below is a typical EquipmentWatch Rental Rate Blue Book report for a Caterpillar 336 Excavator.

EquipmentWatch.

www.equipmentwatch.com

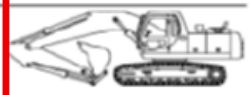
All prices shown in US dollars ($)

Key Information

Rental Rate Blue Book® October 27, 2025

Caterpillar 336
Crawler Mounted Hydraulic Excavators

Size Class:
33.5 - 40.4 mt
Weight:
N/A



Configuration for 336

Bucket Capacity	**3.0 cu yd**	Horsepower	**311.0 hp**
Operating Weight	**81900.0 lbs**	Power Mode	**Diesel**

Blue Book Rates
** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD $16,705.00	USD $4,680.00	USD $1,170.00	USD $175.00	USD $55.67	USD $150.58
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2025: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	**USD $16,705.00**	**USD $4,680.00**	**USD $1,170.00**	**USD $175.00**	**USD $55.67**	**USD $150.58**

A

FHWA Hourly Rate

Non-Active Use Rates

	Hourly
Standby Rate	USD $55.10
Idling Rate	USD $117.16

B

Standby Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32.83%	USD $5,483.42/mo
Overhaul (ownership)	41.95%	USD $7,007.37/mo
CFC (ownership)	15.95%	USD $2,664.31/mo
Indirect (ownership)	9.28%	USD $1,549.89/mo
Fuel (operating) @ USD 3.77	39.97%	USD $22.25/hr

Revised Date: 4th quarter 2025

equipmentwatch.com

Equipment Watch Rental Rate Blue Book Sample Report for Caterpillar 336 Excavator

At the top of the report, under the Rental Rate Blue Book heading, **key information** such as size class, gross weight, and equipment configuration can be found. This information should accurately represent the equipment performing the extra work. The Contractor submitted equipment reports do not need to exactly match the equipment on the project, but they should be reasonably close. Since the construction equipment industry is so large, not every make and model has been categorized and assigned a value within EquipmentWatch.

The middle section of the report, under the Blue Book Rates heading, shows associated Contractor costs for owning a piece of equipment. Adjustments are applied by the Contractor to prorate these costs over the time the equipment is expected to operate on the project. Adjustments for region, specifically for Indiana or their localities, and model year should be included.

When reviewing extra work costs from the Contractor, the rate charged shall not be more than the **FHWA Hourly Rate**, (**A**). The FHWA Hourly Rate is equal to:

$$\left(\frac{\text{Adjusted Monthly Ownership Cost}}{176}\right) + \text{(Hourly Estimated Operating Cost)}$$

For the example shown above:

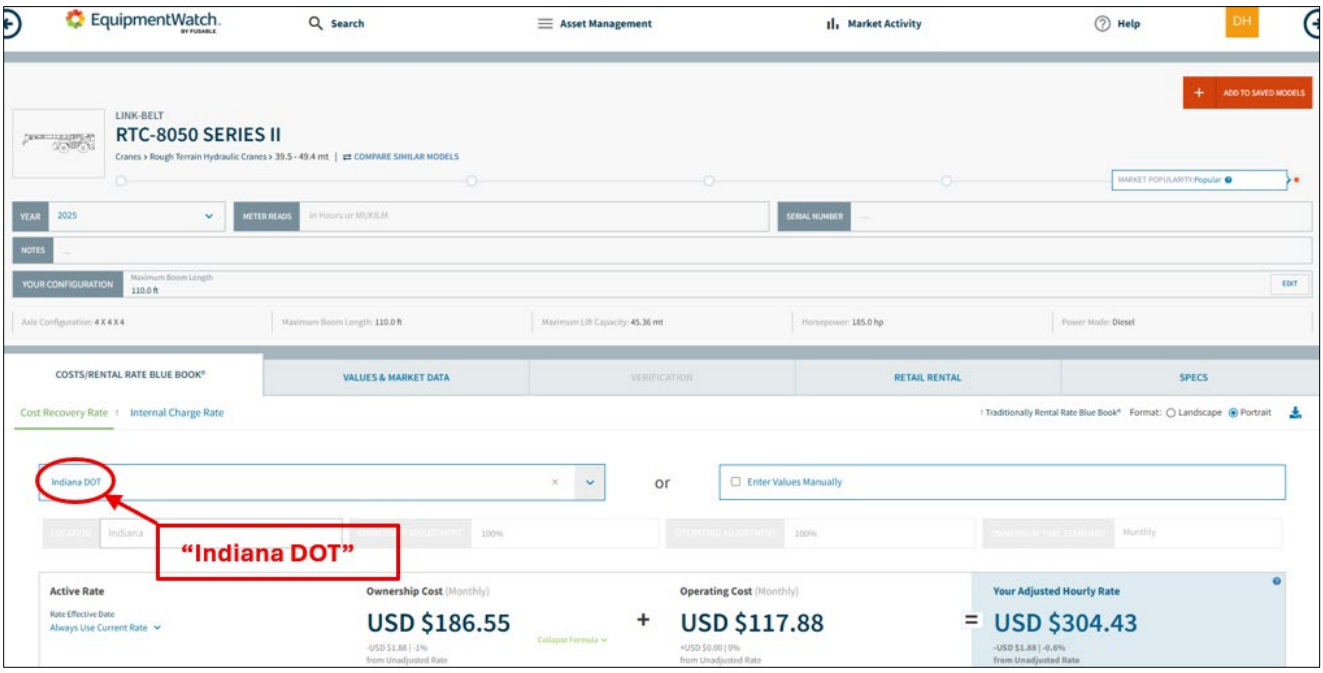
Adjusted Monthly Ownership Cost = $18,284.77
Hourly Estimated Operating Cost = $70.60

This value is automatically calculated within the report.

b) Standby Equipment Rate Determination - When the Contractor submits costs for standby equipment costs, the rate charged shall not be more than the **Standby Rate**, (**B**). The Department allows a standby rate for equipment used for extra work if **all** the following conditions apply:

- the equipment must be operational,
- on-site,
- necessary to perform controlling operation work, and
- remains idle due to conditions beyond the control of the Contractor.

To confirm the region within the EquipmentWatch website, select Indiana DOT from the drop-down menu list of State DOTs as shown below.



The standby rate will also apply during periods of transportation and on-site assembly and disassembly of the equipment.

Standby time will not be considered for payment when the equipment is being used:

- more than 8 hours per day, minus any hours paid for at the FHWA rate, or
- 40 hours per week, minus any hours paid for at the FHWA rate.

c) Accessing the EquipmentWatch Website - Internal personnel should receive a welcome email from EquipmentWatch.com, providing access to a new account and directions on how to finish setting it up. Consultant inspection does not have website access.

To access the new account, follow the below steps:

- Go to https://app.equipmentwatch.com/
- Click on SIGN IN in the top right corner of the page.

If a welcome email wasn't received, request access by selecting the Construction Management Support Inquiries form link and complete your request. CMSupport will then request access on your behalf.

Do not share your username or password to the EquipmentWatch website with others. Sharing your login credentials will lead to suspension of your user account.

To learn more about searching for equipment, refer to the help tab at the top corner of the EquipmentWatch page and navigate to the **Getting Started** video.

d) **Rented Equipment** - If equipment is rented rather than owned, the Department uses the Contractor's actual paid invoice rates from the supplier for the duration of work or standby period to determine the rate costs. During the period of equipment rental, the actual rental costs continue whether the equipment is in use or on standby.

For rented equipment, either the actual fuel, lubricant, and transportation costs incurred by the Contractor or the fuel percentage, indicated under the **Rate Element Allocation** heading of the EquipmentWatch Rental Rate Blue Book report, may be added to the rental cost.

- **Obtain Documented Approval -** After the monetary and time adjustments for the Change Order are determined, refer to the Change Order Policy to determine the required approval authority for the Department. In addition, obtain documented approval from representatives of the LPA or FHWA, if applicable, prior to issuing the Work Order directing the Contractor to perform the Change Order work.

- **Other Change Order Issues -** After documented approval of the Change Order work is obtained, forward information regarding the Change Order scope, affected pay items and quantities, and the unit prices to DO EEO and to the PM.

2.19.12 Execution of Change Order Document

After issuance of the Work Order, it is important to execute the Change Order document as quickly as possible. Since the Contractor cannot be paid for work associated with new pay items included in a Change Order until the document is fully executed, completing the Change Order approval process must be a top priority. In addition, while the Change Order is being processed, verify that the purchase orders associated with the work have sufficient funds to allow for payment of the Change Order work. If insufficient funds remain in the purchase orders, initiate the process to add the necessary funds.

The following instructions are intended to provide points of emphasis regarding the Change Order execution process (*See* SiteManager Training Document for more detail):

- **Generate AWP Change Order Information Entry -** The first step in the change order generation process is the entry of necessary information within the Change Order module in AWP. Under the **Construction** heading of the hoe screen, choose the **Change Oder** menu selection. Select the Component Action Items down arrow to activate the drop-down menu items. Click on **Select Contract to Add Change Order** menu item. Select the appropriate contract or type the contract number in the search bar. Select **Create Change Order on Contract** at the lower right of the window. The data associated with pay items and quantities must be entered in

accordance with the PCNs under which the work will be performed. Time adjustment data is entered on a contract basis, but separate entries are required for each closure period, intermediate completion date, contract completion date, etc.

- **Entering Information –** There are three fields in the General change order tab that need to be completed by the PEMS. The three areas include the **Description**, the **Change Order Type**, and the **Reason** for the change order. These three fields are identified by red asterisks next to the titles. In order to identify recurring Change Order patterns, it is necessary for the correct reason code to be selected for the Change Order. Criteria for determining reason code categories appear earlier in this document. Using these categories, select the most appropriate subcategory to describe the situation related to the Change Order. All possible reason codes appear on a drop-down menu within the **Reason** location of the AWP change order module.

- **Scan Appropriate Change Order Attachments into AWP -** The documented approvals received from the Department approval authority, PM, FHWA, or the LPA, as applicable, should be scanned into AWP as attachments to the change order. In addition, documented approvals required from the DCM for the special situations listed in the Change Order Policy should be scanned into AWP.

- **Document Cost Analysis Process for Change Orders with New and Unique Pay Items -** Change Orders which include new and unique pay items are required by the Federal Code of Regulations, 23 CFR 635.120 to have a cost analysis performed. To document this requirement has been met, cost verification should be included as an attachment to the change order that indicates that the unit prices for all new pay items have been reviewed and found to be reasonable.

- **Document Force Account Process for Change Orders -** If force account is utilized, a valid reason must be given for performing the work under force account. Select "FA" within the drop-down menu for Change Order Type. This will identify the change order as one involving force account work. Any additional reasons can be added to the general explanation of the change order. Scan all documents required by Standard Specification 109.05(b) for force account work into the change order for AWP.

- **Document Time Adjustments for Change Orders –** Contract time must be mentioned in the explanation for any change order. Use one of the three responses detailed in section 2.18.1. Any time adjustment must be analyzed against the approved schedule and an explanation provided as to how the critical path was delayed. Scan the approved project schedule and any other correspondence into the change order.

- **Place Change Order in Pending Approval Status -** Prior to beginning the actual approval process, it is necessary to revise the change order status to "Pending Approval". Verify that the noted Department approval authority level is correct. If not, contact the DO for additional guidance. Once it has been determined that the Department approval level is correct, select the appropriate individuals for the AE, DCD, SCE, and DCM menus as appropriate.

- **Produce Change Order Hard Copy for Contractor Signature –** Since the Contractor does not have access to AWP, it is necessary to produce a hard copy of the Change Order and scanned documented approvals so that the Contractor's approval can be noted by signature. **Do not share any bid history data or operation production data from the cost analysis file with the Contractor**.

- **Document Contractor Approval in AWP Change Order Module -** Upon receipt of the Contractor signed Change Order hard copy, indicate the Contractor approval of the Change Order within AWP. Scan the Contractor signed change order hard copy into AWP. If no LPA approval is required, maintain the Contractor signed hard copy in the Intelligent File Cabinet contract file.

- **Forward Contractor Signed Change Order Hard Copy to LPA, if Applicable** LPAs do not have AWP access, so forward the Contractor signed hard copy to the LPA for official representatives' signatures on LPA contracts.

- **Document LPA Approval in AWP Change Order Module, if Applicable -** Upon receipt of the LPA signed change order hard copy, if applicable, indicate LPA approval of the change order within AWP. Scan the LPA signed hard copy into AWP and maintain the hard copy in the Intelligent File Cabinet contract file.

- **Obtain Department Approval -** If the PEMS is the approval authority, approve the change order within AWP. If the contract has FHWA oversight, notify FHWA that the change order is available within AWP for FHWA review via e-mail. If the contract does not have FHWA oversight, the change order approval process is complete.

  If the approval authority is at the AE level or above, notify the AE via e-mail that the change order is ready for approval. If the AE is the Department approval authority, the approval process is complete once AE approval is granted unless the contract has FHWA oversight. For FHWA oversight contracts, the AE notifies FHWA that the change order is available for review within AWP via e-mail.

  For change orders with an approval authority above the AE level, each individual within the approval chain will recommend the change order for approval and forward it to the next level until the change order is approved by the approval authority. Once the change order is approved by the approval authority, the change order approval process is complete unless the contract has FHWA

oversight. If the contract has FHWA oversight, the approval authority needs to notify FHWA that the change order is ready for review within AWP.

If anyone in the approval chain requires additional information prior to approving the change order, the PEMS will be contacted and notified of the required additional information. While preparing the requested additional information, modify the change order status back to "Draft". Once the requested additional information is forwarded to the individual that requested it, change the status of the Change Order to "Pending Approval" and notify the AE that the change order and additional information is ready for the approval process.

- **Distribute Copies of Executed Change Order to All Signatories -** After all required approvals have been obtained, supplement the Change Order/attachment hard copy that includes the Contactor signature and LPA signatures, if applicable, with a AWP generated Department approval page to serve as the original change order document. Maintain this document and attachments in the Intelligent File Cabinet contract file. From this original document, produce hard copies of the change order and all attachments for distribution to:

  1. Contractor
  2. LPA (if applicable)
  3. FHWA (if applicable)
  4. District Office file
  5. Project Manager.

2.19.13 Documentation Requirements

Change order related correspondence exchanged between the Department and the Contractor should be retained by attaching the documentation to the respective change order within AWP. It is acceptable to scan these documents into AWP or maintain them in the Intelligent File Cabinet contract file as long as the document location is noted on the Correspondence Log. Following are examples of documents related to change orders which should be entered, as applicable, to the change order:

a. Contractor's Change Order Request submittal,
b. Cost verification information,
c. Any necessary drawings,
d. Any necessary calculations,
e. General correspondence,
f. Contractor's signature on the change order,
g. Project Manager correspondence,
h. FHWA approval correspondence, as required,
i. Other documents explaining the creation of the change order and how the price and quantity were determined.

2.20 CLAIMS

Situations which result in Contractor claims for additional compensation or contract time can be very complicated. It is not possible to provide clear instructions for handling every situation that can potentially result in a claim. Therefore, the following discussion will be limited to certain concepts that are common to claim situations.

2.20.1 Changed Conditions

Contractor claims will only be considered when they are related to a changed condition as defined in 104.02 of the SS. There are three types of changed conditions:

- Differing Site Conditions
- Suspension of Work Ordered by the Engineer
- Significant Changes in the Character of the Work.

In most cases, when there is a potential changed condition situation on the contract, it is discovered by the Contractor. Therefore, the Contractor will be responsible for providing written notice of a changed condition.

Upon receipt of the Contractor's notice of changed condition, investigate the situation to determine whether any of the provisions of the SS apply. If necessary, direct the Contractor to stop work in the area of the possible changed condition to allow for the investigation. Refer to 104.02(d) for timeframe requirements for response to the Contractor.

If the situation is complex and it is not possible to respond within the stated timeframe, work with the Contractor to agree on an acceptable extended deadline.

If it is determined that the situation does not meet the SS requirements for a changed condition, notify the Contractor of that determination and direct the Contractor to proceed with work in accordance with the current contract requirements. This notification should be by e-mail.

If it is determined that the situation meets SS requirements for a changed condition, it is also necessary to determine the scope of the work required to mitigate the changed condition. If necessary, contact the AE or PM and request that the appropriate Department or Consultant personnel are contacted for assistance in developing the required scope of work. Once the scope of work is determined, notify the Contractor in writing of the changed condition determination and of the scope of work required to mitigate the problem. An e-mail is the preferred form of written communication for this notification.

If the Contractor accepts the determination made by the PEMS, prepare and execute a Change Order in accordance with the Change Order Policy for incorporation of the following:

- Addition of new pay items related to the mitigation scope of work to the contract.

- Adjustment of quantities associated existing pay items.
- Time adjustments associated with the performance of the mitigation work.

2.20.2 Contractor Notice of Intent to File Claim

If the Contractor disagrees with any portion of the determination of a changed condition or the mitigation scope of work, a Notice of Intent to file a claim must be submitted in accordance with 105.16(b) of the SS. This notice needs to describe the extent of the disagreement with the changed conditions finding so that tracking of the disputed costs and time can be performed. If there is no mention of the extent of the dispute in the Contractor's notice, request that it be provided as soon as possible.

Once the Notice of Intent is filed and the extent of the dispute defined, the Contractor is required by 104.02(d) to submit weekly reports while the disputed work is being performed to document the additional costs and time associated with the performance of this work. While this disputed work is ongoing, it will be necessary to track the labor, equipment, and materials used and document this information in the AWP diary on a daily basis.

On a weekly basis, meet with the Contractor to compare the AWP diary records to those included on the Contractor's weekly report. At the conclusion of the meeting, generate a report indicating all agreements and disagreements and maintain the report with comments in the Intelligent File Cabinet contract file. If the Contractor submits written notice of disagreement with the AWP diary entries, maintain this information in the same contract file. The importance of documentation and organization cannot be overstated. "If it is not written down, it did not happen" is a common statement made by individuals experienced in claim review.

Once the disputed work is completed, the Contractor must submit their claim within the timeframe included in 105.16(b). Review the claim against the documentation requirements and provide the Contractor with written acknowledgement of receipt of the claim. An e-mail is the preferred method for this notification. Any deficiencies in claim documentation should also be noted.

Timeline documentation of the claims process can be tracked using the District Claims Worksheet available on the Construction Information area of the Department's website.

2.20.3 Project Level Review

The PEMS is required to perform the project level review. While performing this review, keep the following in mind:

- Perform the review absent of emotion. The claim is to be evaluated on its contractual merits. Use factual information only.

- LPA contracts require involvement by a representative of the LPA and possibly an MPO in the claim review process.

- FHWA oversight contracts require FHWA representative participation in the claim review process.

- In accordance with the SS, the burden of proof for additional compensation or contract time is on the Contractor. This concept applies to providing contractual justification for entitlement as well as documentation of the magnitude of the additional compensation or contract time to which entitlement is demonstrated.

- Claims may ultimately result in litigation. It is important that the claim review process is performed in accordance with contract requirements and in a professional manner. All claim reviewers may be asked to testify under oath in a deposition or at trial.

- The AE and FE assigned to the District are available resources for the claim review. Complex situations may require the involvement of the Department's Legal Division.

- The review should focus on:

    a. Entitlement - Is the Contractor contractually entitled to monetary or time adjustments for performance of the disputed work? If there is no contractual entitlement, it is not necessary to evaluate the impact or cost aspect of the disputed work.

    b. Impact - Did the event that generated the disputed work impact the Contractor's controlling operation or critical path?

    c. Costs - What is the magnitude of additional costs and time incurred by the Contractor due to performance of the disputed work?

Upon conclusion of the project level review, prepare a written determination and forward it to the Contractor. The determination should include contractual justification for the determination, if possible. For situations where the Contractor does not demonstrate contractual entitlement, it is acceptable to cite this as justification for denial.

If the project level determination indicates that the Contractor is entitled to a portion of the monetary or time adjustments being sought, prepare and execute a Change Order in accordance with the Change Order Policy to settle as much of the claim as possible. If the Contractor's representative will not sign the Change Order because they intend to pursue the denied portion of the claim, notify the AE for guidance.

2.20.4 District and Central Office Reviews, Mediation, and Litigation

Detailed requirements for reviews of claims occurring above the project level between the Contractor and the Department are included in 105.16(c) of the SS. There are situations where

all higher level reviews are performed in the District Office and there are others where Central Office review is required.

If the Contractor provides notice that a DO review is desired, forward the original claim submitted by the Contractor and the project level determination to the DO. While the DO or CO review is ongoing, provide any additional information requested.

If the claim or any portion is resolved at any of these levels, prepare and execute a Change Order in accordance with the Change Order Policy to facilitate payment of the monetary adjustment or modify the contract time in accordance with the time adjustment.

2.20.5 AWP Documentation Requirements

AWP includes a Claims/Liens identification area within the **CHANGE ORDER** module which allows for tracking the status of claims. When the Contractor's claim document is submitted, input the required claim information into the module. Contractor submittals of Notice of Changed Condition, Notice of Intent to File a Claim, or submittal of weekly claim forms do not warrant data entry into the Claims/Liens identification area. AWP automatically numbers each claim as it is initially entered into the area. No additional information is required to be input until the claim is resolved. At the time that the claim is resolved, input information related to the settlement amount and settlement date into the area.

When executing a change order that incorporates the claim settlement into the contract, "**CLM – CLAIM RESOLUTION**" should be chosen for the **Change Order Type** within the AWP Change Order module Associate the claim number within the **Description** of the change order.

There may be situations where claims are partially resolved at various steps in the claims resolution process. When partial resolutions are reached, the PEMS is required to prepare and execute change orders to incorporate the partial settlement into the contract. Input the claim number in the Description and Explanation entry areas to associate the change order to the claim. It is necessary to keep track of the monetary and time adjustments associated with each partial resolution outside of AWP until the claim is totally resolved. At that time, input the sums of all monetary and time adjustments into the AWP Change Order module to complete the data entry associated with the claim settlement.

2.21 COST REDUCTION INCENTIVES, CRI

Contractors may propose to modify contract documents to reduce construction costs without impairing essential functions, characteristics, and timing of the project. A Contractor's proposal must be in accordance with the SS.

The three components of payment for a CRI accepted by the Department include:

1. Contractor's Reasonable Design Cost for the CRI proposal
2. Cost of the work
3. Fifty percent of the department's net saving, in accordance with 109.04 of the SS:

TNS = OCW – RCW – CRDC - DC

Where:

TNS	=	Total Net Savings
OCW	=	Original Cost of the Work required by the original contract
RCW	=	Revised Cost of the Work
CRDC	=	Contractor's Reasonable Design Cost for the CRI proposal
DC	=	Department's Cost for investigating, evaluating, and implementing the CRI proposal.

EXAMPLE:

*The Original Cost of the Work (**OCW**) required by the original contract is: $200,000.*

*The Revised Cost of the Work **(RCW)** is: $100,000.*

*The Contractor's Reasonable Design Cost **(CRDC)** for the CRI proposal is: $20,000.*

*The Department's Cost **(DC)** for investigating, evaluating, and implementing the CRI proposal is: $10,000.*

The PEMS would make a payment for the CRDC of $20,000 after approving the formal proposal.

*Total Net Savings (**TNS**): $200,000 - $100,000 - $20,000 - $10,000 = $70,000.*

The Contractor's 50 percent share of the net savings: $70,000/2 = $35,000.

Total CRI Payment to the Contractor: $20,000 + $35,000 = $55,000.

The Contractor's Reasonable Design Cost for the CRI proposal, as well as the costs incurred by the Department in investigation and evaluation of the plans and contract, will be deducted from the total estimated savings of an accepted proposal. The PEMS should work with the PM and the Designer to determine the Department's Cost, as well as determining if the Contractor's Reasonable Design Cost is acceptable. The resulting net savings is split equally between the Contractor and the Department. Time savings resulting from the CRI should not be included in the calculation of net savings.

The intent of the CRI is for the PEMS to generate a change order to compensate the Contractor for their submitted Reasonable Design Costs just after approving the formal proposal. In cases when the Department has not initially paid the Contractor for development costs, or when the time frame between the development and completion of work is very short, the design cost and savings payment can be performed under one single change order. It is important that all costs are carefully documented on the change order. Whether completed under separate change orders or one change order, the development costs and the payment for 50% of Department

savings to the Contractor should be paid in accordance with 109.04. The change order should adjust contract time and interim completion dates as required.

2.22 BUY AMERICA (STEEL AND IRON PRODUCTS) AND BUILD AMERICA/BUY AMERICA

The Department's Buy America requirement applies to both State and Federally funded contracts where permanently incorporated, domestically purchased steel and iron materials are planned to be used in the contracts. All contracts must incorporate domestically produced steel and iron products in accordance with IC 5-16-8 and 23 CFR 635.410.

For Federally funded contracts, the Build America/Buy America certification requirements apply. These requirements are outlined in Construction Memo 25-07, RSP 106-C-277, and 2 CFR part 184. Both the construction memo and the RSP documents are available on the Department's website. Additionally, M&T has a spreadsheet available for field use that helps determine whether a product or material is categorized as an Iron or Steel product, a Construction Material, or a Manufactured Product. This document is available on the M&T website.

All Buy America and Build America/Buy America certifications for State and Federally funded contracts must be submitted by the Contractor for each pay item containing qualifying products or materials prior to those products or materials being incorporated into the contract. A single all-encompassing Buy America or Build America/Buy America certification covering multiple pay items is not acceptable. Contractors should account for the use of domestic products and materials at the time of bid.

2.22.1 Minimal Use of Foreign Steel Regulation

Indiana code provides a provision for the potential use of foreign produced steel and iron materials when there is documented information on the insufficient supply of domestic steel and iron. The CFR allows for a minimal amount of foreign steel and iron to be incorporated into the work if specific requirements are met. The CFR requirements state that a minimal amount of foreign steel may be permitted, upon a waiver request made by the Contractor, if the greater of either:

a. the total cost of all foreign sourced products used in the contract, as delivered to the project site, is less than $2,500, or
b. one-tenth of one percent (0.1 percent) of the total contract amount is met.

The Department may elect to use the minimal foreign steel regulation at its discretion. The Contractor shall not dictate the use of the potential minimal quantities.

The PEMS should work with Contractors and Manufacturers to help answer questions on Buy America and Build America/Buy America compliant products and certifications. It is not the responsibility of the PEMS to find compliant materials and products, only to help answer questions on compliance issues. Once all potential substitution options have been exhausted, the PEMS should request that a Buy America Minimal Use Form be completed by the Contractor. A

fillable form will be made available by the Department after discussion with the AE and the respective FE. Once the Minimal Use form has been completed and received from the Contractor, the PEMS will provide a copy of the document to the AE. The AE and respective FE will then review the form and determine if the foreign material is acceptable for use. If the request is determined to be acceptable to the AE and FE, the PEMS will submit the form to their respective DMTE as additional documentation for material acceptance.

2.22.2 AWP Documentation Requirements

All Buy America and Build America/Buy America certifications are required to be uploaded into AWP as part of the material certification requirements for each applicable pay item. An AWP template (template SMl004) is available for every material code that would result in the permanent incorporation of steel or iron products, construction materials, or manufactured products into the contract. A review of the Contract Sample Checklist report for the contract will help identify those items that require a Buy America or Build America/Buy America Certification.

Material Change Example:

Detectable warning elements can be either cast iron, brick, or fiberglass. If the Contractor chooses to provide fiberglass detectable warning elements, a Buy America Certification will not be required for a State funded contract. For a Federally funded contract, the fiberglass detectable warning elements would require a Construction Materials certification, in accordance with the M&T Build America/Buy America materials spreadsheet. The PEMS would enter the appropriate material certification into the AWP materials section.

2.23 DEMOLITION WORK

If the contract involves demolition work, the PEMS must give the Contractor written notification when parcels become available for demolition. This information will be furnished to the DO by the Land Acquisition Section of the Real Estate Division.

The Contractor should be assessed liquidated damages when demolition work does not commence within 5 calendar days or is not completed within 60 calendar days, in accordance with 108.08 of the SS. Inspection and testing for asbestos presence or filing a notification with the IDEM will be considered as part of the work. Copies of these filings must be dated and included in the final records for the contract.

An example of the Contractor's "NOTICE TO PROCEED WITH DEMOLITION WORK" notification letter is shown below.

NOTICE TO PROCEED WITH DEMOLITION WORK

Contract # _____

District # _____

Contractor _____

Gentlemen:

This is to inform you that the demolition on parcel(s) _____ can begin on _____. This date constitutes your official written notification in accordance with the standard specifications. Work is to commence within 5 calendar days after the date specified above. Liquidated damages will be assessed beginning on the 6th day.

_____
Project Engineer/Supervisor

cc: District Construction Engineer
Contract File