SECTION 14 – UTILITY RELOCATION INSPECTION PROCEDURES

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Section 14:

Utility Relocation Inspection Procedures

SECTION 14 – UTILITY RELOCATION INSPECTION PROCEDURES

14.1 INTRODUCTION

On most highway improvement contracts there will be utility facilities located within or adjacent to the contract limits. Some of the facilities may be in conflict with the proposed construction, some may be in the process of relocating out of conflict, and some facilities may not be in conflict with the proposed construction. FHWA requires the Department to minimize or avoid impacts to utility facilities whenever feasible. The constructability reviews during project development are critical to successful progress on construction contracts. These reviews are the most opportune time for developing the correct utility work plans and subsequent contract bid documents. The AE should consider these reviews as a primary responsibility of the assigned PEMS. Contractors are required to coordinate work schedules with the utilities indicated in the CIB, work around existing utilities as shown on the plans, and prepare areas for utility relocations as presented in the CIB. The PEMS will bring critical field experience and input into the development of utility work plans and design plans.

The Department manages contract utility facilities by coordinating with identified utilities prior to construction and developing utility relocation work plans. These work plans coordinate the location, schedule, and work of the Utility with the contract. A Work Plan Approved letter is issued for all relocation work plans that are acceptable to the Department. A permit number is issued with this letter. In this letter, the Utility is provided a notice to proceed with their pre-construction activities. A Notice to Proceed with Construction letter will be issued by the Utility Coordinator once work required by the Department or the Contractor is completed. Utility work plans are reflected in the CIB and the locations are in the utility relocation drawings uploaded to the bid documents for the Contractor to review. The goal of the Utility and Railroad Section is to address all utility related concerns and keep the contract team informed. The concept is to deliver information in sufficient detail, so the contract team has no surprises regarding utility coordination. The Utility Coordinator is the point person for all utility related concerns from contract inception to conclusion.

14.2 AUTHORIZATION

Authorization for a Utility to start pre-construction activities is provided in the Work Plan Approved letter. Authorization for a Utility to start construction activities is provided in the Notice to Proceed with Construction letter. These letters are issued by the Utility Coordinator.

The PEMS will verify that a Utility planning to work or actually performing work within the right of way has a Notice to Proceed with Construction letter issued by the Utility Coordinator. Also, the PEMS will verify Utility work is appropriate with the contract documents and coordinated with the work of the Contractor to help progress the contract in accordance with the identified schedule.

14.3 PRE-CONSTRUCTION CONFERENCE

When utilities are involved in a contract, a portion of the pre-construction conference should be devoted to discussing and coordinating work schedules with the Contractor and subcontractors. The work schedule discussed in the pre-construction conference should also coordinate with the

contract utility provisions. The contract utility provisions are drafted by the Utility Coordinator in coordination with each impacted Utility. The provisions are derived from Utility Work Plans negotiated with the Utility and are intended to comply with the contract. Any post-work plan changes or new expectations of a Utility must be coordinated through the Utility Coordinator and may result in additional costs to the Department or the Contractor. The PEMS should prepare minutes of the utility discussions and include them in the pre-construction conference minutes. The proposed scheduled starting dates, anticipated completion dates and any applicable or intermediate dates, should be noted. On contracts where there are major utility concerns, additional utility meetings may be appropriate and become part of the regularly scheduled progress meetings. Utilities in attendance should be organized by 1) the complexity of the Utility relocation required, and 2) the availability of the Utility Coordinator coordinating all utility schedules with the construction progress schedule.

As part of the utility portion of the pre-construction conference, the PEMS should request a list of contact names from each utility involved in the contract from the Utility Coordinator. Although the contract may include some contact information, it should be verified and updated in the utility discussions. The Utility Coordinator is the primary contact for all utility related concerns. This will help free the PEMS to manage the contract. The PEMS will have this contact information for the Contractor's required notification to utilities.

Special emphasis must be given to the review of the existing and proposed locations of aerial lines. The Contractor must consider utility relocation work in their work plan and bidding of the contract. Possible conflicts with the Contractor's construction equipment (cranes, backhoes, pile driving equipment, etc.) may not have been known at the time of the Utility's plan formulation or the Department's review of the plans. The utility relocation drawings in the contract documents should be considered in the Contractor's bid and are not a basis for requiring changes in a Utility's permitted locations. If the Contractor chooses a means or method of construction that requires a change in a Utility's permitted location, the PEMS must inform the Contractor that they shall have to negotiate the additional cost with the Utility and seek a permit addendum from the Utility Coordinator.

The following should be documented in the AWP Diary:

- the date the area necessary for each Utility to relocate was staked,
- the date any obstruction was cleared for the Utility,
- the date each Utility was contacted regarding starting their work,
- the date the Utility actually started work, and
- any adverse conditions causing delay in the sequence of operations.

The PEMS should note specific items of assistance that were provided to the Utility such as locating the centerline of the road, establishing grade stakes in advance of normal staking, etc. Unless covered at a recent pre-construction conference, a comprehensive review of the work to be performed should be made at the start of the Utility relocation work.

14.4 INSPECTION

The degree of inspection of utility construction will vary considerably depending on the type of contract and the nature and location of the Utility work involved. Judgment must be exercised regarding the manner and regularity of inspection. It may vary from spot checks on minor overhead installations to more detailed inspections of underground facilities.

The following items should be noted:

a. Be observant of proposed grade and alignment of utility relocations and check that the Utility plans are compatible with the road structures and construction features.

b. Verify that proper backfill methods and materials are used where proposed and future road surfaces and berms are planned.

c. Be observant for any substantial change in the Utility's methods and materials from those approved, such as the use of sheeting, special backfill, etc. The PEMS should immediately contact the Utility Coordinator to discuss these changes with the Utility. For reimbursable utilities, there can be no payment for any work in addition to the approved work. Therefore, such approval must be obtained before starting any procedural changes.

d. Be sure that the Utility foreman is familiar with symbols furnished on the construction stakes, such as cut and fill information, and that both the Utility and Contractor use the same information.

e. Spot checks should be made to verify that trench depths are compatible with highway surface plans, that the vertical clearance of overhead utility installations are sufficient to ensure minimum clearance above highway structures, and that horizontal alignment is compatible with construction limits, access lines, etc.

Utilities are authorized, after obtaining the Notice to Proceed with Construction letter, to perform all necessary work involving minor changes in quantities or additions of minor items deemed necessary to accomplish the intent of the approved agreements. However, no reimbursement can be made without prior approval. Contact the Utility Coordinator for issuance of that approval.

Approval must be secured from the Utilities and Railroad Section for substantial changes in the scope of work. Examples of possible substantial changes are changing a planned aerial road crossing to a buried crossing, changing the method of installation from open trenching to a directional bore, and any proposed change to a permitted location. In non-emergency situations, the proposal for such a change must be submitted in writing by the Utility to the Utility Coordinator. As much detailed information, sketches, estimates (if work is being performed by

contract, the Engineer's estimate should be made prior to Contractor's proposal), costs, and as much other documentation as practical must be provided by the Utility.

The Utility Section will inform the Utility of approval of design changes. If timing is critical, the necessary communication can be accomplished by phone or e-mail and confirmed in writing as soon as practical.

It may be difficult to define or otherwise describe the limits of "substantial change" due to variations in cost of work, its complexity, the variable situations, and terrain encountered. It is undesirable to request approval for every recognizable change. In case of doubt, and where the change will increase the utility agreement cost, the Utility should request approval for the change from the Utility and Railroad Section.

14.5 RECORDS

Utility relocation work records should be kept in sufficient detail by the PEMS to identify conformance with the relocation plans and schedule. These records can become very important when analyzing a claim for utility delay by the Contractor or a claim for additional compensation by a Utility. In general, more detailed records should be kept for utility work that is reimbursable as opposed to non-reimbursable work. The different methods of payment for a Utility's relocation work determine the type of records to be kept at the contract level. These are described below:

a. For reimbursable work performed entirely by the Utility with Utility forces only, the records should include the number and class of employee, major equipment on site, principal materials used, and materials removed from the site. Pertinent data such as weather conditions, ground conditions, breakdown of equipment, delays due to conflicts with other Utility forces or Contractor's operations, should be noted. Any conversations with the Utility, District, or the Utility and Railroad Section should be noted.

b. For reimbursable work in which part or all the work is being performed by a Contractor having a continuing contract with the Utility, the same records are required as in (a) above unless the agreement clearly establishes the work being performed under a continuing contract is on a unit of work basis, rather than a manpower and equipment basis. If it is clearly on a unit of work basis, only the units of work completed per day by the Contractor need be recorded. Work performed by the Utility's own forces in conjunction with a continuing contract should follow (a) above.

c. For reimbursable work being performed in part or completely by outside Contractors on a unit of work basis, records should cover the units of work performed on a daily basis. On contracts being performed in part or completely by an outside Contractor on a firm bid basis, items of labor and equipment used by the Contractor can be deleted from the record. In those instances when extra work is performed by the Contractor on a per hour

or per diem basis, items of labor and equipment must be maintained for the record. The units of work completed should be recorded daily for checking payment to the Utility for their Contractor's work. This should include such items as the number of poles installed, the amount of wire strung, the lineal footage of pipe or casing installed, the length of line removed, and the amount of trenching, or any other work unit.

d. On lump sum agreements between the Department and the Utility where work is being performed by either utility forces, under a continuing contract, or a Contractor selected by competitive bid, the daily checks on manpower, equipment, and material can be omitted.–Detailed reviews should be made during installation and at the final utility inspection to ensure conformance with the agreement. In these instances, the Utility will be paid the exact amount of the original or modified agreement regardless of the actual cost incurred by the Utility, if they have satisfactorily performed all work covered by the approved plan. When a Utility uses inspection personnel to inspect the work being performed, records should be kept identifying the hours and rate for the Utility's inspection personnel. Particular emphasis should be given to inspection personnel not on the Utility's payroll. Such outside inspection services will usually be covered by a contract between the Utility and the inspection firm. A copy of the agreement should be requested to determine compliance with the agreement.

14.6 SALVAGE MATERIAL

Salvage of materials is the reclamation of materials from a contract site that have some continued value. Salvage value is the monetary value of these reclaimed materials either through reusing the materials or recycling the materials. There are three types of salvage involving utility materials:

1. For reimbursable work, the Utility must reclaim all materials for which the salvage value exceeds the cost of removal unless otherwise coordinated with the Department. The salvage value is a credit to the Department on the cost estimate of the agreement. The Utility shall include the actual salvage value as a credit to the invoiced cost of the agreement.

2. For non-reimbursable work, the salvage value is a credit to the Utility owning and reclaiming the materials.

3. For Utility materials retired and left in place on the contract site, the responsibility remains with the Utility until the materials are removed by either the Department or the Contractor. The Contractor must reclaim all materials for which the salvage value exceeds the cost of removal. All materials required to be removed by the contract must be

salvaged. The Contractor must provide a credit to the contract for all salvaged materials. The salvage value is a credit to the Department on the cost of the contract. The PEMS must track the status of these salvageable materials.

The Utility Coordinator will work with each Utility to determine if any materials will be "retired in place". This will be reflected in the Utility's work plan and in the estimates. The Department has eliminated the use of "abandoned" materials. The Utility will remain accountable for the costs of addressing asbestos materials and any environmental concerns that arise out of leaving materials on Department right-of-way. If a Utility chooses to retire a facility in place, it is understood that the Department can perform any construction activity necessary to complete the contract without regard to the impact on the Utility's retired in place facility, including removal for disposal, salvage, or reuse.

These determinations will be made during contract development in constructability reviews then placed in the Utility's work plan and in the contract bid documents as appropriate. However, if additional issues arise during the contract, the Utility Coordinator will work with the PEMS and the Utility to help bring resolution to the issues. The Department will determine whether it is desirable to recover materials that do not require removal because of construction requirements. Therefore, the Engineer must review the agreement with the Utility representative to determine whether the facility was proposed and approved to be removed.

If an agreement called for removal, a determination shall be made that removal is still necessary due to the construction. If the material is not required to be removed because of construction, then determine the economical and liability justification for removing such facilities.

The utility agreement will normally reflect if the material is to be salvaged by the utility, the expected salvage credit will exceed the removal, transporting, refurbishing, and return costs. Otherwise, the agreement will call for in place retirement unless it was presumed that retirement of the material would create a potential liability to the Department, to the Utility, or if it would be detrimental to the present contract or future use and safety of the road. If the facility is removed due to a field decision and the Utility desires the materials for future use, determine if the credit given the Department for the material will exceed the cost of recovery, transporting, refurbishing, and return costs. If the credit proposed by the Utility does not exceed these costs, the material shall be disposed of. This should be discussed with District Utilities.

If the agreement calls for removal and salvage of items that could be retired in place, but unusual field conditions are encountered at the time of removal operations, a discussion with the Utility representative concerning the salvage credit should be conducted. The discussion should concentrate on whether the credit will equal or exceed the cost of removal and salvage under these changed conditions. If the Utility cannot confirm the salvage credit, the cost of salvage, and the cost of removal, the PEMS should classify this as a substantial change in scope of work and act accordingly.

When the agreement calls for retirement of specific parts or all the facility, but such retirement will, in the opinion of the Engineer, constitute a hazard or liability to the Department, to the Contractor, or adversely affect the work of the Contractor, it shall be treated as a substantial change. Approval to remove the facility will be requested through the Utility and Railroad Section. After approval, the Utility should be instructed to remove the facility and the contract record should note the reason for the change.

It is the opinion of the Utility and Railroad Section and FHWA that, in general, all pipe 12 in. or less in diameter can be retired in place. The final determination to abandon is the responsibility of the DO and the Utility concerned.

14.7 FINAL INSPECTION OF UTILITY

The final inspection of utilities varies based on whether the relocation work was performed by the Utility or by the Contractor as part of the contract. There is little difference between reimbursable and non-reimbursable utility inspections.

For relocation work performed by the Utility, the PEMS has no specific duties to verify accurate placement. However, the PEMS is required to verify the Contractor and Utility personnel are coordinating the execution of the work as necessary to maintain the contract schedule.

For relocation work performed by the Contractor, the PEMS has the same requirements for supervision, inspection, and record keeping for the work as any other work in the contract.

At the conclusion of the utility work, a final inspection should be conducted in the presence of the Utility representative, the Contractor, and the Utility Coordinator to determine conformity with the approved original or modified utility work plan. The Utility Coordinator should be consulted on additional attendees for this final inspection. A report should be written to the contract file, with a copy going to the DO, which states the date the final inspection occurred, who was in attendance, and the outcome of the final inspection. The Utilities Coordinator will issue a letter of “Acknowledgement of Completion” to each approved Utility. A copy of the letter should be maintained in the contract file.

In the event that a change to the Utility’s work plans becomes necessary, the change may be authorized in the field upon the PEMS approval. They should consult with the Utilities Coordinator and must keep written documentation of the changes approved. The Utility and Railroad Section will assist as needed with any determination on changes. The primary concerns are that Utilities do not interfere with the construction or safety at the contract and that relocation follows the Department’s Utility Accommodation Policy for the permitted location. It is preferred that all changes to the Utility’s work plan are approved by the Utility Coordinator.

14.8 TRANSMITTING RECORDS

The PEMS must partner with the Utility Coordinator to create and maintain adequate records. These records will be copied to the Utility Coordinator for use in reimbursement of the Utility’s work and in final audit.

14.9 ASSISTANCE TO THE UTILITY

The Utility may require assistance in completing their relocation, such as staking of right-of-way, interpreting plans, etc. While it is up to the Utility to do their relocation, it may be in the best interests of the Department for the Contractor to provide the Utility with appropriate assistance so the Utility relocates their facilities in the proper location. If the PEMS or the HT observes a Utility placing their facilities in a location that will cause conflict, the Utility must be advised of the problem immediately.