SELECTED CONSTRUCTION CONTRACT ADMINISTRATION STANDARD OPERATION PROCEDURES FOR TEXAS DEPARTMENT OF TRANSPORTATION, ODESSA DISTRICT

A Record of Study

by

SANTIAGO REACHI GONZALEZ

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December 2003

ABSTRACT

Selected Construction Contract Administration Standard Operation Procedures for Texas Department of Transportation, Odessa District. (December 2003)

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In order to achieve the stated goal of reducing the final closing procedure time cycle for construction projects at the Texas Department of Transportation (TxDOT) Odessa District, several standard operating procedures (SOPs) for project construction control and management had to be revised. Seemingly unrelated tasks created posterior chains of events that resulted in bottlenecks in the process and delayed final project closing. Four specific SOPs were identified and analyzed to determine which tasks required modification and what was expected from these modifications. A mission for each specified SOP was conceived and written to give a clear view of the intent of the procedure. Afterwards, district policies were drafted to provide the means to fulfill the intent.

The procedural changes, compatible with TxDOT statewide procedures, allowed the time spent in the processes to remain the same but redistributed it to reduce the end-loading of the control process. The new SOPs require an even time distribution cyclically throughout the project. Control procedures are done only once, shortening the final closing procedure for projects by doing one-time, short, cyclical, consecutive control tasks of the same procedure throughout the life of the project, rather than doing some of them once cyclically and then again at the closing procedure and others just at the closing procedure. These changes resulted in a shorter end-cycle time, which substantially reduced the final closing procedure time for each project, without affecting the integrity and safeguards of the project.

The changes resulted in more efficient and timely financial, managerial, and engineering control of projects.

The procedures revised were (1) Review and Approval of Change Orders; (2) Review and Approval of Monthly Progress Estimates; (3) Review and Approval of Interim and Final Audits and Final Estimate; and (4) Storm Water Pollution Prevention Plans (SW3P) Records Management and Auditing Procedures.

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INTRODUCTION

This Record of Study fulfills part of the requirement for the degree of Doctor of Engineering. It presents the results of the work done in a one-year internship at the Texas Department of Transportation (TxDOT) and presents a brief explanation of the internship itself.

The TxDOT construction contract administration process is reliable and accurate in handling the financial, administrative, and engineering aspects of its business. It incorporates more than 85 years of experience in dealing with all aspects of highway, road, bridge, and street construction, design, and maintenance. TxDOT spends a great amount of money ($5 billion per year), most of it on contractors. When contractors are not paid on time, they add interest charges to their invoices. Consistent experience with late payment leads them to increase their bids in order to cover their expenses, and they may eventually decide not to work for the State. All of the above work against a "best quote."

TXDOT uses the SiteManager (SM) software to manage and control its projects. SM is proprietary software designed specifically for departments of transportation (DOTs). Some years ago, several states, including Texas commissioned software that included a “dream list” through the American Association of State Highway and Transportation Officials (AASHTO). The software was, and continues to be delivered, adjusted, upgraded, and modified according to the real necessities of the DOTs. It is very complete and works well, but it still has a few bugs. The software is fairly new to the Odessa Division, having been implemented about one year ago, so established workers do not always use it correctly because of the natural human tendency to resist change, and newer employees need guidance.

This record of study follows the style and format of the *Journal of Transportation Engineering.*

In TxDOT's Odessa District, some construction-contract administration procedures had to be modified to comply with desired end results. The desired results were defined, and then upstream procedures were examined to identify causes of undesirable results. Once the procedures and sub-procedures or actions that affected them in their performance were identified, the Construction Contract Administration procedure was modified and the desired results obtained.

Mr. Stephen G. Smith, Director of Construction, Odessa District, directed my internship. We identified an objective of reduced process time between estimate and contract payment, particularly in the final project closeout stage as a goal for my work. We then determined which practices would contribute most to accomplishing the objective and assigned four procedures in the construction contract administration for which I was to write new Standard Operating Procedures (SOPs). The new procedures should modify the processes to produce the desired results. The new procedures were required to maintain the level of efficiency already in place, and to safeguard the State’s interests and the integrity of the projects.

STATEMENT OF PROBLEM

The basic problem presented to me was to shorten the contractor payment time, to meet the established parameters, while assuring the integrity of engineering, financial and administrative controls in every project.

There are a number of things that must be tracked for each construction project. Controls must be in place to verify the financial, quality, employment, work-in-place, machinery-at-site, schedule, and use of approved materials. The SM software works by comparing contract items and times with Daily Work Reports and Diary. It indicates discrepancies if daily reports have not been entered or authorized; if dates are not met, or if an insufficient number of successful test samples has been taken. Discrepancies are resolved easily and quickly, if handled in a timely manner. However, when discrepancies accumulate over the life of a project, which may be as long as several years, resolution becomes difficult. SM allows Area Offices, which generate Monthly Progress Estimates to override discrepancies. However, for the final estimate, all discrepancies have to be resolved. As with any software, the quality of input data determines the quality of the output. When field input data is not entered, not approved, or erroneously entered, then compared with the original contracted data, discrepancies result. These can be resolved easily, at the time they happen, or shortly afterward, to avoid compounding the problem with time and additional or consecutive discrepancies.

The original procedure was to accumulate all hard copies in a large box. This box was seldom audited until the project closed, when the district office was required to reconcile the required records. Because the life of a project can be long, problems sometimes arose in locating documents, some of them old, required by statewide procedure.

Other electronic non-SiteManager data is kept in the T Drive, under each project's ID Control Section Job number.

District Construction Director Smith identified the main objective of my internship as a decrease in the final audit and final estimate review and approval process time to at most 18 days from the original 28. Four areas in which he believed that a change in procedure would be helpful were:

1. Review and approval of change orders
2. Storm Water Pollution Prevention Program
3. Review and approval of Monthly Progress Estimates
4. Review and approval of Interim and Final Audits and Final Estimate

Desired Objectives for the Standard Operating Procedures

The SOPs were designed to help accomplish common tasks. The purpose of having them revised was to make them and their associated tasks more efficient. Specifically, the new SOPs should:

- Increase Area Offices' (AO) efficiency in generating change orders (CO)
- Increase the District Construction Office's (DCO) efficiency in reviewing COs
- Make records management and auditing procedures for new Texas Commission for Environmental Quality (TCEQ) rules efficient
- Increase financial, administrative, and engineering control of COs and of review and approval of Monthly Progress Estimates (MPE)

METHODOLOGY

Mr. Smith assigned a number of tasks designed to familiarize me with the existing procedures, how they worked, and what was happening. Those tasks were:

1. Become familiar with four basic manuals
    a. Construction Contract Administration Manual, (2003)
    b. Standard Specifications for Construction of Highways, Streets and Bridges, (1993)
    c. Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, (1995)
    d. SiteManager Contract Administration Manual
2. Help process Monthly Progress Estimates (MPEs)
3. Examine Interim Audits (IA)
4. Help review COs
5. Help with the final closing of a project
6. Gain awareness of the pertinent environmental issues, specifically the Storm Water Pollution Prevention Plan (SW3P)
7. Spend time with the record keepers at the AO
8. Implement a one-day workshop for record keepers
9. Attend a three-day, statewide construction seminar
10. Attend a week-long SM training course
11. Accompany Mr. Smith on several inspections
12. Attend a pre-construction meeting

These activities filled the first two months of the internship. By the third month, I began to contribute to the overall effort.

Organizing a day-long workshop for area record keepers and construction district office personnel provided additional insight into the process. Glen Larum served as a facilitator and the effort received assistance and support from the District Auditor.

The Three Manuals

The three different manuals, though written for slightly different purposes, were very clear and agreed on all common points; however, there was an enormous amount of information in them, in excess of 3000 pages of documentation. After reading them, I concurred with Mr. Smith that the new SOPs had to be short, effective, and easy to follow.

Monthly Progress Estimates (MPEs)

- Monthly Progress Estimates (MPEs) have to be processed in a timely manner by the District Construction Office (DCO). There are few people assigned to this task. Monthly Progress Estimates often have many discrepancies. It is often easier to override or ignore them than to resolve these discrepancies. The MPEs can be processed with discrepancies; however, the Final Estimate must be free of discrepancies. The DCO does not actually see the hard copies of the MPEs until the closing of the project; however hard copies should be collected throughout the life of the project.
- Area Offices have to do a more complete job. MPEs will have to resolve discrepancies soon; they cannot be allowed to get old and facts forgotten.
- Not all AO Record Keepers are skilled or fully knowledgeable of SM features and uses.
- Area Offices will send all hard copies to the DCO monthly, where they will be kept until the project is closed.

Conclusions

- The DCO must receive all required documentation checked and complete.
- Monthly Progress Estimates should be periodically dry-run to minimize discrepancies. If a discrepancy has to be overridden, it must be with the DCO knowledge and consent, and that discrepancy has to be resolved before the next MPE. Discrepancies cannot be carried from one month to the next.

The DCO should see the hard copies monthly.

- Monthly enforcement of rules will, in time, make AO record keepers skilled on SM.

Interim Audits

- Interim Audits (IA) are conducted periodically between the start of the project and the Final Audit.
- The DCO does not actually see the hard copies, which are kept at the AOs; they should be collected at the beginning of the project, cyclically throughout the project, and at the closing of the project, until the Final Audit (FA) at the DCO.
- At times, hard copies cannot be found and it takes a long time to find or replace them.
- Interim audits should be short and frequent.

Conclusions

- IA should be changed to Monthly Progress Audits (MPA).
- The AO should send hard copies to the DCO every month, along with the MPE, and these will become part of the MPA.
- Audited hard copies should remain at the DCO for safekeeping.
- The MPA should precede the MPE approval, as the Final Audit precedes the Final Estimate approval.

Project Final Closing

- Specific hard copies are difficult to find, because of the elapsed time.
- There are many discrepancies, most from the past MPEs; these are difficult to reconcile because of the elapsed time.
- The Final Audit, which precedes the Final Estimate Approval, has to be made from the beginning of the project to the end of the project, making it very time consuming.
- Audit time is not evenly distributed throughout the life of the project.
- There is pressure to go through the process within the established time range.
- The contractor supplies end-of-project hard-copy documentation, which is often lacking or late.
- The DCO generates and approves the Final Progress Estimate.

Conclusions

- Missing or wrong hard copies, as SM-generated MPEs, should be audited and replaced or changed monthly, while information is fresh in memory.
- Discrepancies should be resolved before the MPE is sent to the DCO. If a discrepancy has to be overridden, it has to be resolved before the next MPE.
- The Final Audit should be broken down into Monthly Progress Audits. Leaving for the Final Audit only the last month and final hard-copy documentation and the final SM audit, since all MPE and documentation is up to date.
- Audit time should be distributed throughout the life of the project as described previously.
- Pressure on DCO is reduced because end-loaded work is greatly reduced.
- Contractors should be reminded in the project acceptance letter, that it is their responsibility to turn over all (their and their subcontractors) documentation and that failure to do so may result in payment delay.

- Final Progress Estimate should be generated by the AO and approved by the DCO or generated by the DCO and approved by Director of Construction (DOC).

Environmental Issues

- Environmental issues are a fact, and have to be dealt with as specified by the regulatory agencies. This will certainly help reverse negative conditions and maintain a clean environment, which everyone desires.
- TxDOT must comply.
- On March 5, 2003 the responsibility for oversight of operations was given to the Texas Commission on Environmental Quality (TCEQ). This implies new methodology for dealing with environmental issues.

Conclusions

- Each District has assigned a person to be responsible for environmental issues and procedures to make sure the District's projects comply with TCEQ rules.

Area Office Record Keepers

- Area Office record keepers have a good disposition for doing things right and show pride in their area operation.
- SM is relatively new to everyone in the District.
- Record keepers do not use all features of SM.
- There is the expected resistance to change.

Conclusions

- The record keepers need further SM training.
- They also need Standard Operating Procedures, because some record keepers need a guide for changing previous procedures.

- There is a need for a guide for new record keepers.
- There is a need to develop a district-wide check list to ensure that every one is doing the same thing

Record-Keepers Workshop

I obtained backing from the District, Construction, and Area Engineers to have a workshop with all AO record keepers, DCO staff, district auditor and the district public information person and a moderator. Before the workshop, I asked the record keepers to put together a check list of what they did for an MPE. I gave a presentation on what was expected from them.

- Everyone wants to better the operation and is willing to work towards that end.
- The checklists brought by the record keepers were similar, but not the same in content nor in order.
- Not everyone was reading the same book, and those that were, were on different pages.
- Everyone put together one checklist in the workshop, and agreed to send a revised follow-up to me.
- There are things that the record keepers do not want to change.

Conclusions

- Use everyone's contribution to form a consensus.
- SOPs are needed and have to be implemented.

Statewide Construction Seminar.

- TxDOT is an enormous organization.
- TxDOT has a great many resources, human and economic.
- The organization has made a commitment to do the right thing and do it better.

Conclusions

- Somewhere in TxDOT there is at least one person that knows what you need, or it has been written.
- You can do most anything, if you can justify it.

SM Training Course

- SM mechanics.

Conclusions

- I learned how to use SM

Inspections

- Much effort is placed on consumer (road users) safety and satisfaction.

Conclusions

- TxDOT policy is to think safety and user convenience

Pre-Construction Meeting

- It is important to foresee problems, because it makes solving them the primary issue, sharing increasing or decreasing costs
- It is important to having different level personnel responsible for resolving conflicts as time passes. Problems should be solved at the lowest possible level, in the field. If, in the first 12 hours a responsible person for the contractor and one for TxDOT do not solve the problem, then the problem is passed to other higher responsible persons, if not solved within 24 hours, it passes on to the District Engineer, if not solved, it passes on to the Executive Director where it must be resolved within 24 hours.

Conclusions

- Resolve problems as close as possible to the origin, do not let them escalate.

Relevant Conclusions

- I concurred with Mr. Smith that the SOPs had to be short, effective, and easy to follow.
- DCO must receive all required documentation checked and complete.
- Monthly Progress Estimates should be dry run periodically to minimize discrepancies. If a discrepancy has to be overridden, it must be with the DCO knowledge and consent, and that discrepancy should be resolved before the next MPE. Discrepancies cannot be carried from one month to the next.
- DCO should see all the hard copies monthly. The Area Offices should send hard copies to the DCO every month, along with the MPE as part of the MPA.
- Monthly enforcement of rules will make AO Record Keepers, in time, skilled on SM.
- Interim and Final Audits should be changed to Monthly Progress Audits (MPAs)
- Audited hard copies should remain at the DCO for safekeeping.
- An MPA should precede the MPE approval, as the Final Audit precedes the Final Estimate approval.
- Missing or wrong hard copies, as SM MPE, should be audited and resolved monthly, while information remains fresh in memory.
- Discrepancies must be resolved before the MPE is sent to DCO. If a discrepancy has to be overridden, it has to be resolved before the next MPE.
- The Final Audit should be broken down into Monthly Progress Audits, leaving only the last month of the project, final hard-copy documentation, and the final SM audit for the Final Audit, since all MPE and documentation is up to date.
- Distribute audit time throughout the life of the project as described previously.

- Pressure on DCO will be reduced because end-loaded work is greatly reduced.
- Contractors should be reminded in the project acceptance letter, that it is their responsibility to turn over all (their and their subcontractors) documentation. Failure to do so may result in payment delay.
- Final Progress Estimate should be generated by the AO and approved by DCO or generated by DCO and approved by Director of Construction (DOC).
- Each District has assigned an environmental issues and procedures responsible person to make sure the District's projects comply with TCEQ.
- There was a need for these Standard Operating Procedures, because some record keepers need a guide to changing behind previous procedures and as a guide for new record keepers.
- There is a need to develop a district-wide checklist to insure that everyone is doing the same thing

TxDOT-ODESSA DISTRICT CONSTRUCTION ADMINISTRATION STANDARD OPERATING PROCEDURE (SOP) C 01-03 REVIEW AND APPROVAL OF CHANGE ORDERS

Purpose

The purpose of this SOP is to supplement general TxDOT SOPs and streamline the existing District SOP to have a faster and more accurate system. These changes have been integrated to work together as a well synchronized mechanism were each component complements the others in time.

Implementation:

The new SOP is interactive for ease of use. It is composed of three interlinked distinct sections:

1. SOP separate interactive parts
2. The written SOP
3. Decision Tree and Flow Diagram for Change Orders (CO). Interactive set that graphically illustrates the Change Order internal flow and required authorizations according to cost, and other specifications.
4. Master Checklist, which modifies itself according to the use required
    a. By time cycle. e.g. initializing, cyclical and final
    b. By required task and/or document

Contributions to goals:

1. Procedural standardization
    a. Train neophyte users

   b. Keep experienced users from shortcuts, old and/or bad habits, if any.
2. Support the control process and keep a permanent record through out the Project's life, with an additional, informal, usable Master Checklist.

Review and Approval of Change Orders

Odessa District Mission Statement and Policy on Change Orders

New Mission: Exercise financial, chronological and engineering control over projects through well-thought, well-structured and timely use and approval of change orders (COs).

Policy: It is the intent of the Texas Department of Transportation (TxDOT) to amend contracts whenever a significant change in character of work occurs.

Specific Purpose

The primary purpose of these Standard Operating Procedures (SOPs) is to delineate the process the District Construction Office (DCO) will follow on the Area Offices' (AOs) SiteManager (SM)-generated COs. Secondarily, AOs will know exactly how their estimates are reviewed and approved. Paying particular attention to these specific points will smooth the CO review process.

Change Order Review General Procedure

In the Odessa District (ODA), the review process follows the established TxDOT default hierarchy criterion. i.e.

1. Area Engineer (AE)
2. District Construction Office Staff (DCOS)
3. Director of Construction (DOC)

4. District Engineer (DE)
5. Construction Director (CST)
6. Assistant Executive Director, Engineering Operations (AED EO)

If a CO needs to be expedited, please make it known to the DCO; do not override approvals in SiteManager (SM) without DCO knowledge and consent.

Chronological Procedure

The AO notifies DCO via GroupWise (GW) that a draft CO is in SM for review.

Use the Master Checklist to see the Standard Operating Procedure (SOP) for review. Set column J to filter Change Order Review Checklist (CORC).

The District Construction Office (DCO) reviews all CO drafts for the following:

1. Time extension only done by CO in SM, whether Federal, State or Local
2. If the CO requires some or all funds from a third party, the appropriate field must be populated
3. For Advanced Funding Agreement (AFA), CO AFA form and the Generic Field has to be populated, which will generate a third CO page for third-party funding.
4. If the CO time adjustment is identified as participating or non-participating by the Federal Highway Administration (FHWA), State, or local authorities.
5. Review for type of CO, Over and Under Run, extra work, time adjustment, force account, zero dollar, etc
6. Contractor's name corresponds to the appropriate Control Section Job (CSJ) number
7. Review plans and identify changes
    a. If appropriate notify the Materials Lab

   b. If Storm Water Pollution Prevention Plan (SW3P) or other environmental issue is impacted, notify the District Environmental Quality Control (DEQC) person

8. Review the explanation, especially the engineering aspects.
9. Check the items for standard in District Construction Information System (DCIS) specifications, if not standard, the special specifications/provisions have to be attached to the CO.
10. Review time extension
11. CO has to be populated fully and correctly in SM, including major or minor item(s). Review correct item code, and District and Statewide low bid averages, for that item
12. Review line items and whether the change order is a pay plan quantity item
13. Make sure the Reason Code appears in the CO
14. Texas Department of Licensing and Regulation (TDLR) review and DCO coordinated if
15. Pedestrian traffic with expenditure over $50,000
16. Director of Operations Office (DOO) Review and DCO coordinated if
17. Illumination and/or Traffic Controls are involved
18. Ascertain if the change order will alter the final design and if so, include these changes in the as built plans
19. When appropriate notify District Material's Lab (Dr. Evans) and/or District Environmental Quality Control (DEQC) person (Mr. John Blackman)
20. Transmittal memo (and GW) with additional information on CO when approval by the FHWA and/or the Assistant Executive Director for Engineering Operations (AED EO) is required; it must contain at least the following information:
    a. Who prepared the plans
    b. Reasons for change
    c. Status of the work
    d. Price justification for newly added items

e. Review District and Statewide low bid averages for that item,

f. Environmental clearance for added roadways

Approval Levels

CO under $50,000 and no change in limits. For a graphical representation, please go to: Change Order Decision Tree and Flow Diagram Procedure

Flow

- AO generates CO draft
- AO send to DCO for review
- DCO reviews the CO draft as aforementioned and advises the AO by GW that the status can be changed to Pending.
- Contractor signs CO and Record Keeper (RK) accepts for contractor in SM
- AO changes status to pending and updates PS&E
- AE approves in SM, signs and seals two Original Change Orders (OCO) and sends them to DCO for distribution
- DCO sends one signed and sealed OCO to CST Austin
- DCO sends one signed and sealed OCO to the contractor

CO between $50,000 and $300,000 and no change in limits. For a graphical representation, please go to: Change Order Decision Tree and Flow Diagram

Flow

- AO generates CO draft AO send to DCO for review
- DCO reviews the CO draft as aforementioned and advises the AO by GW that the status can be changed to Pending
- AO changes status to pending and updates PS&E

- Contractor signs CO and RK accepts for contractor in SM
- AE approves in SM, signs and seals two OCO
- DE approves in SM, signs and seals two OCO
- DCO sends one signed and sealed OCO to CST Austin
- DCO sends one signed and sealed OCO to the contractor

CO over $300,000 or change in project limits. For a graphical representation, please go to: Change Order Decision Tree and Flow Diagram Procedure

Flow

- AO generates CO draft
- AO send to DCO for review
- DCO reviews the CO draft as aforementioned and advises the AO by GW that the status can be changed to Pending
- AO changes status to pending and updates PS&E
- Contractor signs CO/RK accepts for contractor in SM
- AE approves in SM, signs and seals two OCO
- DE requests approval in SM
- DE approves in SM, signs and seals two OCO
- DCO sends two signed and sealed OCOs to CST Austin
- CST Reviews
- TxDOT Administration (AED, EO) approves in SM, signs and seals
- TxDOT administration keeps one signed OCO in CST Austin
- TxDOT sends one signed and sealed OCO to the contractor

Supplemental agreements are agreements between the contractor and the State, approved by the Surety, done when a CO does not proceed.

CO Denial

If a change order draft is not approved, it is denied. The CO Originator and previous approvers will be notified by the Denier in a GW. The CO Originator must change from pending to denied, this leaves the CO as unapproved, and this is not acceptable in the Odessa District. Change from pending to draft, make the necessary changes and re-submit.

This Standard Operating Procedure will remain in effect until revised or rescinded. Recommendations to modify or clarify this document should be submitted in writing to the Review Authority.

Approved by: Lauren D. Garduño, P.E., Odessa District Engineer July , 2003

TxDOT-ODESSA DISTRICT CONSTRUCTION ADMINISTRATION STANDARD OPERATING PROCEDURE (SOP) C 05-03 STORM WATER POLLUTION PREVENTION PROGRAM

Purpose

The purpose of this District SOP is to supplement general TxDOT SOPs and to streamline the existing District SOP to have a faster and more accurate system. New environmental compliances have been incorporated to this SOP. The changes have been integrated to work together as a well synchronized mechanism where each component complements the others in time.

Implementation:

The new SOP is interactive for ease of use. It is composed of three interlinked distinct sections:

1. SOP separate interactive parts
2. The written SOPs
3. Master Checklist, which modifies itself according to the use required.
    a. By time cycle. e.g. initializing, cyclical and final
    b. By required task and/or document

Contributions to goals:

1. Procedural standardization
    a. Train neophyte users
    b. Keep experienced users from shortcuts, old and/or bad habits, if any.

2. Support the control process and keep a permanent record throughout the Project's life, with an additional, informal, usable Master Checklist.

Storm Water Pollution Prevention Program

Odessa District Mission Statement and Policy on Environmental NPDES/TCEQ Related Issues

New Mission: TxDOT, Odessa District construction sites will comply with all National Pollution Discharge Elimination Systems (NPDES) requirements. Working pro-actively with its administrator, the Texas Commission for Environmental Quality (TCEQ), the Odessa District will set the standard of environmentally friendly construction and be a role model for other construction enterprises to follow.

New Policy: The Odessa District sees the NPDES requirements, not as a burden, but as an opportunity to be part of the world positive environmental movement, and TxDOT will go the extra mile to make a difference.

Specific Purpose

The purpose of these Standard Operating Procedures (SOPs) is to give the Odessa District personnel involved in construction a general guide to the required impact studies and paperwork required by NPDES for most construction projects. Moreover, it is meant to be a specific guide for road-construction-related activities, which normally involves a Storm Water Pollution Prevention Plan (SW3P), Part I of the attached questionnaire. Since most of the preliminary studies and permits are made and requested (parts II and III of the attached questionnaire) before construction personnel involvement. The new procedures were made effective on March 5, 2003, being relatively new, the detailed procedures are being adopted by job-driven solutions. Therefore, changes to these SOPs can be expected soon.

General Procedure for SW3P for Projects That Start After March 5, 2003.

Small and large projects. The NPDES defines three project sizes where there is soil disturbance. Each category is treated differently, as follows:

1. Smaller than one acre and not part of a larger project
    a. Coverage is not required under the Texas Pollutant Discharge Elimination System (TPDES) Permit No. TXR 150000.
    b. A Notice of Intent (NOI) is not required, but a SW3P has to be developed in plans in case that it is needed, or
2. A waiver may be requested in case the area and the season represent a low erosivity (erosion sensitivity) factor of less than 5.0.
3. Medium-sized projects (1-5 acres)
    a. Obtain a copy of the TCEQ Construction General Permit (CGP) TPDES Permit No. TXR 150000.
    b. Develop and implement an SWP3..
    c. Send the SW3P to Municipal Storm Sanitary Sewer System (MS4), if applicable.
    d. Complete and post a site notice.
    e. Before construction begins,
        i. Complete and submit a Low Rainfall Erosivity (erosion sensitivity) Waiver Form, if the site qualifies, or
        ii. Complete and post a site notice (Template at the end of TPDES Permit No. TXR 150000).
4. Larger projects (over 5 acres)
    a. Obtain a copy of the TCEQ General Permit (TPDES Permit No. TXR 150000).
    b. Develop and implement a storm water pollution prevention plan (SWP3).
    c. Turn SW3P to MS4, if applicable

d. Complete and submit an NOI to the TCEQ (using the TCEQ form) at the address listed on the form, 48 hours prior to the commencement of the construction. TCEQ will:
e. Issue a permit number or
f. Issue a denial notice.
g. Submit a Notice of Termination (NOT) once the site has reached final stabilization.

A Department Environmental Quality Coordinator (DEQC) will be involved with all District Projects and will decide on an individual basis in which of the three categories each individual project will be placed. This may change in a time-line projection. The DEQC will be involved and will deal with the TCEQ directly, or at least provide counsel and guidance in all Environmental Protection Agency (EPA), TCEQ, NPDES and/or TPDES related matters, for each project.

Use the Master Checklist with column J set to "SW3P" to check the required documents and their time-line.

Permissible and Non-Permissible Discharges

The general permit would also authorize the following non-storm water discharges from sites:

1. Discharges from fire fighting activities;
2. Fire hydrant flushing;
3. Vehicle, external building, and pavement wash water where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal

regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, and dust;

4. Water used to control dust;
5. Potable water sources, including waterline flushing;
6. Air conditioning condensate;
7. Uncontaminated ground water or spring water, including foundation or footing drains.

Non-storm water discharges from sites not authorized in the general permit are authorized under an individual permit or an alternative general permit, if one is available:

1. Discharges that would cause or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses of receiving waters;
2. Sources of new discharges of the constituents of concern to impaired waters, unless otherwise allowable under TCEQ rules, applicable state law, and any Total Maximum Discharge Limit (TMDL) and TMDL implementation plan that exist for the applicable receiving water; and
3. Discharges otherwise prohibited under existing state rules.

The specific requirements of the SWP3 include the following minimum provisions:

1. A detailed project description, a map indicating the site location, a site map depicting construction site details and information on receiving waters must be included.
2. A description of the structural and the non-structural controls Best Practices (BPs) that are used to minimize pollution in runoff during construction as well as stabilization practices during and at the completion of the activity must be included.
3. A description of how BPs, maintenance, and controls are revised upon a finding that the control measures are either not working properly or adequately.

Include a description of how site inspections are conducted. Inspections are required at a minimum frequency of at least once every 14 calendar days and within 24 hours of the end

of a storm event of 0.5 inches or greater during active construction activities. Where sites have been temporarily stabilized, inspections must be conducted at least once every month. Special provisions allowing for representative inspections are provided for long, linear projects where access along the site is limited and travel along the site may damage stabilized areas or cause greater potential for erosion. Identify and describe the implementation of appropriate pollution prevention measures for all eligible non-storm water components of the discharge. See the official TxDOT Environmental Commitment Checklist that can be found in Appendix A from Thomas R. Bohuslav, P.E. June 4, 2003.

This Standard Operating Procedure will remain in effect until revised or rescinded. Recommendations to modify or clarify this document should be submitted in writing to the Review Authority.

Approved by Lauren D. Garduño, P.E., Odessa District Engineer, July , 2003.

TxDOT-ODESSA DISTRICT CONSTRUCTION ADMINISTRATION STANDARD OPERATING PROCEDURE (SOP) C 07-03 REVIEW AND APPROVAL OF MONTHLY PROGRESS ESTIMATES

Purpose

The purpose of this District SOP is to supplement general TxDOT SOPs and streamline the existing District SOP to have a faster and more accurate system. Critical processes were identified and modified to keep pace with all other aspects of the District's Operations and goals. These changes have been integrated to work together as a well synchronized mechanism where each component complements the others in time.

Implementation

The new SOPs are interactive for ease of use. They are composed of three interlinked distinct sections:

1. SOP separate interactive parts
2. The written SOPs
3. Master Checklist, which in turn modifies itself according to the use required.
    a. By time cycle. e.g. Initializing, cyclical and final
    b. By required task and/or document

Contributions to goals

1. Procedural standardization
    a. Train neophyte users
    b. Keep experienced users from shortcuts, old and/or bad habits, if any.

2. Support the control process and keep a permanent record through out the Project's life, with an additional, informal, usable Master Checklist.

Review and Approval of Monthly Progress Estimates

SM's Monthly Progress Estimates (MPE) should carry no discrepancies, and if they do, these discrepancies have to be resolved by the next estimate, by:

1. Dry-running MPE one week before the actual MPE.
2. Dry-running the Xite Report once a week.

Contribution to goals

Efficiency in MPE and Final Estimate processing

Implementing a Monthly Progress Audit (MPA) before authorizing each Monthly Progress Estimate (MPE)

These MPA will include:

1. SM audit.
2. Hard copy documents will be sent monthly to District Construction Office (DCO) for auditing and archiving.
3. All non-SM electronic data, located by CSJ in the T Drive.

Contribution to goals

1. Auditing time is distributed over the project's life.
2. Modify the end-loaded Project Closing Process to front and cyclical (as it happens) loading, by:
    a. MPA implies auditing only one month every month
    b. For the Final Audit there is no need to re-audit.

   c. Final Auditing implies auditing only the last month and closing documents.
   d. Overall closeout time significantly reduced.
3. There is, at all times, an updated audited project control, which assures a better financial, administrative and engineering control.

Anomalies detected in audits will remain anomalies at most for one month. Events are fresh in memory, and can be resolved with greater ease and accuracy than old events.

Odessa District Mission Statement and Policy on Contractor Payment

Mission: Generate, approve and process monthly progress, retainage, semifinal and final estimates expediently, at all District levels, in order to safeguard the interest of the State and pay the contractors in a timely manner.

New Policy: Area Offices (AOs) will send the District Construction Office (DCO) all hard copies of documentation, every month along with the Monthly Progress Estimate (MPE) and hard copies of Final Project Documentation along with the Final Estimate. These documents will be part of the Monthly Progress Audit and the Final Project Audit, respectively.

New Policy: AOs will run a complete diagnostic MPE and related reports once a month, one week before the actual MPE is due. AOs will run the XiteReport and the Contract Sampling and Testing Checklist once a week. These runs will be used to eliminate estimate- and item-level discrepancies before generating the actual MPE.

New Policy: Monthly Progress Estimates ideally will carry no discrepancies. If a discrepancy has to be carried due to the time factor, that discrepancy must be resolved before the next MPE.

Policy: AOs and the DCO have to process Progress Estimates in the shortest possible time.

Policy: The Monthly Progress Estimate (MPE) "cut off date" is the third working day of the month at 3:00 PM.

Specific Purpose

The primary purpose of these Standard Operating Procedures (SOPs) is to specify the process the DCO will follow to review Monthly Progress Estimates (MPE) created in SiteManager (SM) by the AOs. Secondarily, AOs will know exactly how their estimates are reviewed and approved. Paying particular attention to these specific points will help generate and self-check estimates in a timely and accurate manner.

Payment General Procedure

TxDOT generates MPEs on active projects regardless of whether the estimate produces a payment to the contractor or not. The MPE is calculated from the "cut off date" to the previous estimate or start date. The AO transmits the Contractor's Estimate Package for the month to the contractor, including the previous month’s estimate (work in place) and the Contract Time Statement.

Monthly Progress Estimate

The Area Office Record Keeper (AORK) generates the MPEs. Only the estimate generator, i.e. the AORK, can override or resolve estimate discrepancies in SiteManager (SM). Following are the Standard Operating Procedures used by the DCO to review every progress estimate before approving it. AORKs will follow the same procedure before sending MPEs for review and approval.

"The estimate generation process uses both installed quantities and time charges from Daily Work Reports and Diaries to calculate payments. AO users should review source data for an

estimate before generating an estimate. Several standard and custom reports are available for reviewing installed quantities and time charges before generating an estimate. District users should correct quantity and time charge errors based on this review before generating an estimate."

Discrepancies occur at two levels, the estimate level and the item level. At TxDOT, we use only the following methods to resolve discrepancies:

- At the estimate level, compare: Contract to input (done or not done/entered or not entered)
- Checklist event/dates missed

At the item level, calculate: Contract to calculation (calculations from input, Daily Work Reports, Sampling and Testing)

- Overruns
- Material test/insufficient samples

To Review the Estimate

AORKs should solicit assistance from the Chief Inspector or Project Manager to settle discrepancies. Use standard and custom SM reports to identify discrepancies in installed quantities, time charges, Sampling and Testing (S&T) discrepancies, and other parameters. The discrepancy window displays all the discrepancies associated with the estimate. AORKs should also check the appropriate reports for discrepancies, and if there are any, resolve them before sending the estimate for review to the DCO. To see the SOP in the Master Checklist set column J to Review and Approval of Monthly Estimate (RAME).

To Review Monthly Progress Estimates the Following Are Used:

- Contractor's Estimate Package Report. Displays most contractor's payments and time charge data. Most conflicts arise when the contractor does not agree with the estimate package. (Custom Report)
- Overrun and Underrun Report. Displays overrun and underrun percentages for all contract items along with indicators. (Custom Report)
- Estimate Summary Report. Displays estimate recapitulation data. (Screen report)
- Contract Adjustments Report. Displays contract adjustments. (Screen report)
- Line Item Adjustment Report. Displays line item adjustments. (Screen report)

Before Generating the Monthly Progress Estimate, the Following Are Considered:

- Unpaid Installed Quantity Summary Report. Displays items of installed quantities that have not been included in that estimate (Standard report)
- Item Work Report. Displays a history of installed quantities for that item (Standard report)
- Item Quantity Report. Displays payment data for all contract line items. (Standard report)
- Unauthorized Daily Work Reports. Displays Daily Work Reports that have not been authorized in the Diary. (Custom report)
- Contract Time Statements Report. Displays time charges for a selected period. (Custom report)

To determine the S&T discrepancies use the XiteReport, which displays S&T discrepancies very reliably. If the XiteReport and the Contract Sampling and Testing show no deficiencies, they govern any other materials report; document and continue.

Paying Progress Estimates

As stated above, the estimate generator is the only one that can override or resolve discrepancies. The estimate generator can do one of two things.

- Override the discrepancies
- Resolve the discrepancies The user may resolve the discrepancy by creating or adjusting the appropriate record(s) and regenerating the estimate.

In the Odessa District whenever there are discrepancies, the second approach is preferred. However, if the estimate generator must override the discrepancies a justification must be entered under remarks in the SM text box and a Group Wise notice sent to DCO, with an explanation of how and when the discrepancies will be resolved. The discrepancy or discrepancies have to be resolved before the next MPE. In the Odessa District, discrepancies are not carried over from one month to the next.

Final estimates cannot be approved with unresolved discrepancies or with unapproved or denied change orders. These anomalies have to be resolved sometime; it is better to do it soon after they arise, when there is time and events are fresh in memory. Resolving a discrepancy at the time it is detected or shortly thereafter, is a Management Best Practice; it prevents compounding the problem with time.

Approval of SM's MPE at District Level

When the AO sends the MPE for review, the DCO follows the above procedure. If it finds no discrepancies, it approves the estimate without further manipulation in SM. If there are discrepancies, but there is an understanding initiated by the AO and the DCO on how and when these discrepancies are going to be resolved before the next monthly estimate and this is documented, the monthly estimate can be overridden for that discrepancy one time.

Corrective Progress Estimate

TxDOT makes payment for installed quantities not included in the previous MPE with the Corrective Progress Estimate.

Duration/Update:

This Standard Operating Procedure will remain in effect until revised or rescinded. Recommendations to modify or clarify this document should be submitted in writing to the Review Authority.

TxDOT-ODESSA DISTRICT CONSTRUCTION ADMINISTRATION STANDARD OPERATING PROCEDURE (SOP) C 08-03 REVIEW AND APPROVAL OF INTERIM AND FINAL AUDITS AND FINAL ESTIMATE

Purpose

The purpose of this SOP is to supplement general TxDOT SOPs and streamline the existing District SOP to have a faster and more accurate system. Critical processes were identified and modified to keep pace with all other aspects of the District's Operations and goals. These changes have been integrated to work together as a well synchronized mechanism where each component complements the others in time.

Implementation

The new SOPs are interactive for ease of use. They are composed of three interlinked distinct sections:

1. SOP Separate interactive parts
2. The Written SOPs
3. Master Checklist, which in turn modifies itself according to the use required.
    a. By time cycle. E.g. Initializing, cyclical and final
    b. By required task and/or document

Contributions to goals

1. Procedural standardization
    a. Train neophyte users
    b. Keep experienced users from shortcuts, old and/or bad habits, if any.

2. Support the control process and keep a permanent record through out the Project's life, with an additional, informal, usable Master Checklist.

Odessa District Mission Statement and Policy on Interim and Final Audits and Final Estimate

New Mission: Efficiently integrate Interim and Final Audits and Final Estimates into a well-synchronized mechanism where each part functions at a certain stage of the process to ensure the integrity of the project; compliance with TxDOT financial, administrative, and engineering procedures; and fairness to our contractors, suppliers, and subcontractors. From Contract Acceptance to Final Estimate Approval, the closing procedure will be completed within 50 days.

New Policy: The Final Audit precedes Final Estimate Approval. Interim Audits will be Monthly Progress Audits (MPA) and will precede each Monthly Progress Estimates (MPE).

New Policy: MPE discrepancies cannot be carried from one month to the next.

Specific Purpose

To delineate the audit/estimate correspondence, in monthly as in final procedures; to distribute TxDOT's financial, administrative and engineering requirements over the life of the project. The goal is front-end and evenly distributed project loading instead of end-loading the administrative tasks. Processing smaller work packages, and having more time to resolve fewer discrepancies and/or omissions, will result in having an accurate, on schedule start-to-date cumulative financial, administrative, and engineering project control.

Audits and Final Estimate General Procedure

In the Odessa District audits and estimates have a one-to-one correspondence. The Area Offices (AO) send their first MPE and all physical documentation available at that time, including pre-construction documentation, information about Disadvantaged Business Enterprises (DBEs) and Historically Underutilized Businesses (HUBs), designated responsible persons, as well as cyclical construction-related documentation such as inspections, haul tickets, hot mix tickets, etc. The District Construction Office (DCO) audits this documentation as well as the estimate generated by Site Manager (SM), and keeps the physical documentation at the DCO; this is the Monthly Progress Audit (MPA). Upon successful completion of the MPA, the MPE is approved. The same thing happens with all subsequent MPAs and MPEs. The MPA pertains to that month's documentation and that month's MPE. The DCO has always a start-to-date audited project status and control. The last related cyclical and final documentation undergoes the Final Audit that precedes the authorization for the Final Progress Estimate.

Review and Approval of Interim or Monthly Progress Audits

In the Odessa District Interim audits or MPAs are done on each project each month before approving the Monthly Progress Estimate. These Partial Progress audits are very similar to the final audit; the audit starts where the previous one ended or at the start of the project and goes up to date. An MPA can be conducted by following the Master Checklist. Set the filter on initiating or cyclical in column D. Alternatively, follow the procedure below. The District Policy is to encourage the Area Office Record Keepers to conduct a self-audit before they generate the Monthly Progress Estimate dry run (one week before the actual Progress Estimate) see SOPs on Monthly Progress Estimates.

Advantages of Doing Monthly Progress Audits

1. Monthly assurance that all projects to-date comply with TxDOT's financial, administrative and engineering requirements.

2. That the auditable document volume (audit time) is distributed over the life of the project, not at the end of the project.

3. Anomalies can be traced and corrected quickly (within a month of occurrence).

4. Closing the project will be easier and faster; only the last month's estimate and final documentation are audited.

The AO can conduct its first monthly self-audit with the first Monthly Progress Estimate dry-run. The Master Checklist can be used. Set column D to "initiating". This will show in column A all documents that must be checked. Set column L to "Yes", to see all hard copy documents that should be in the Project Final Document Box up to that time. Concerning what to look for in SM, column I, see above.

The second and every other month thereafter, except for the final, set the list's column D to cyclical and it will show the documents that must be collected cyclically through out the life of the project. Similarly, setting the list's column D to final will show all necessary documentation for the Final Audit.

Review and Approval of Final Audits

In TxDOT, the purpose of any audit and especially of a final audit is to guarantee that the contractor has met all contracted obligations and that the AO, the DCO and the District Engineer (DE) have complied with all financial, administrative and engineering requirements.

By conducting MPAs as detailed above, the Final Audit will be:

1. Limited to the last month, final and closing papers

2. Drastically reduced final time over the end-load work procedure.

3. Faster procedure less susceptible to errors and/or omissions.

Chronology

The AO has 32 days from the date the District Construction Engineer (DCE) accepts the contract to turn the remaining and final documentation and "the last progress estimate" over to the DCO. The DCO and DCE have 18 days to conduct the final audit, generate the Final Estimate, and approve the Final Estimate. (See below).

The DCO conducts the final project audit before processing the final estimate and shortly after the retainage progress estimate. The final audit consists of examining every source of the project not examined before.

The use of the Master Checklist is appropriate for final audit. Examine

1. All information in SM. In the master checklist set filter to SM in column I.

2. All non-SM electronic data. In the master checklist set filter to T Drive in column I.

3. All non-electronic documentation, usually contained in the Project's Final Documents Box. In the master checklist set filter to Yes in column L.

SW3P-related matters will be addressed in SOP C 10. In the master checklist set filter to SW3P in column J.

Final Auditing of SiteManager Contract Data with Custom and Standard Reports

Custom Reports

1. Overrun Custom Report**,** underrun only on Final Estimate (or if 100% complete and under the limits)
    a. +/- 25% tolerance on major items
    b. +/- 5% tolerance on Pay Plan Quantity (PPQ) items
2. Contract Line Items Report**.** Check for items, not paid yet, that will need to be paid in the final estimate
3. Mobilization
4. Barricades, Signs, and Traffic Handling
5. Preparation of Right of Way (ROW)
6. Adjust Material on Hand (MOH) to zero.
7. Check payment for force account items.
8. Check unpaid items, all will be documented.
9. Final Time Statement Report
10. Check total number of adjusted, charged, and credited days.
11. Unauthorized Daily Work Custom Report. Check to determine if any existing daily work reports (DWR's) need to be authorized before generating the final estimate.

Standard Reports

1. Unapproved Change Order Aging Report**.** Check for change orders in "Draft" or "Pending" status. All change orders must be in either "Approved" or "Denied" status in order to close.

2. Dispute/Claim Summary Report. Check for pending disputes or claims. All disputes or claims must be in "Resolved" status in order to change the contract status from "Active" to "Complete" after approval of the final estimate.

3. Sampling Checklist Report. Check to review required samples and tests and completed samples and tests.

4. Failing Samples Report. For non-exempt or Federal Letter of Approval federal-aid projects only. This report can be used to prepare the Material Certification Letter required for these projects

5. XiteReport. Very reliable, if it agrees with the Sampling Checklist Report, together they govern, and no S&T discrepancies is assumed, document and proceed.

District reviews contract records and views SiteManager screens to assure that all records are on file to comply with contract administration requirements before generating the Final Estimate.

Monthly and/or Final Pay Records

1. Check in the contract records Project's Final Documents Box, for the period in question, for supporting documentation required to support measurement and payment for some items such as haul tickets, drawings and measurements, specialized forms, etc

2. Check in the contract records for truck measurements and distributor calibrations required for seal coat items

3. Check in the contract records for Form 1914, “Request for Payment for Materials on Hand Summary Page” and Form 1915, “Request for Payment of Material on Hand” if payment was made for Material on Hand (MOH)

4. Check in the contract records for supporting documentation for "Contract Adjustments" and" Line Item Adjustments"

5. Spot check installed quantity entries for selected items using the "Item Work Report."

Change orders

1. Compare summary cost data displayed in Force Accounts/ Summary Tab to payment made for force account items that involve full cost accounting to the pay quantity displayed for these items in the "Contract Line Items Report."

2. Check supporting invoices for force account work reimbursed by invoice in the contract records and supporting invoices for materials placed

Materials Test Records

1. For non-exempt, or FLOA, federal-aid projects only, check for the Material Certification Letter and the attached "Failing Samples Report" listing materials that were accepted with failing tests

2. Check in the contract records for manufacturer's certifications required by the specifications

Civil Rights Requirements: Required for Federal-aid Contracts Only

1. Check the contract records to assure that weekly payrolls are on file for the prime contractor and all subcontractors

2. Check the contract records to assure that a signed 'Statement of Compliance WH-347” accompanies each weekly payroll

3. Check the contract records for all required Labor Interviews and view "Checklist Event Dates" to determine that all dates were input for the date "LABOR INTERVIEW.”

4. Check the contract records for all required Annual Project Inspections and view "Checklist Event Dates" to determine if all dates were input for the date "ANNUAL CONTRACT COMPL INSP (Attachment D)."

Requirements for contracts with DBE goals only

1. .If the project DBE/SBE goal is not met, the Construction Division's Business Opportunity Programs Section (CSTB) must give final clearance prior to the district processing the final estimate. This new procedure is being implemented to expedite the final clearance process.

2. Final Estimate Processing for DBE/SBE Requirements. Upon project completion, obtain from the contractor:

    a. SMS.4904, DBE or HUB Final Report form (Federal Projects), or

    b. SMS.4908, SBE Final Report form (State Projects).Upon receipt of this form:

i) make sure it is signed and notarized by the prime contractor

ii) Verify that the amounts reported on the final report form coincide with the amounts already entered on the Subcontracts window.

Race-neutral information that was previously submitted by the contractor shall also be included on the final report form. Once the information has been verified:

1. Determine if the prime contractor met the DBE/SBE contract goal by referring to the Subcontracts window. Note: This screen will show the DBE/SBE goal and the DBE/SBE total progress to date;

   a. Area Office records the day that the DBE/SBE Final Report was received in the "Checklist Event Dates"

   b. If the amounts reported on the final report, do not match the amounts on SMS:

      - AO contacts the contractor in order to reconcile to the amounts reported

      - AO makes adjustments to Subcontracts as needed

   c. If it is determined that the prime contractor has met the DBE/SBE contract goal:

- AO records the contract as being cleared by entering the date the project was cleared in the "Checklist Event Dates"

2. If it is determined that the prime contractor has not met the DBE/SBE contract goal:

a. AO records the date that the DBE/SBE Final Report was received in the Checklist Event Dates

b. AO mails or faxes the DBE/SBE Final Report and any supporting good faith effort documentation to CSTB

c. Further processing of the final estimate will be held until cleared by CSTB.

General Contract Administration Requirements

AO checks file for all required completed Forms 599, “Traffic Control Devices Inspection Report” (View Checklist Event Dates to determine if all report dates for both day and night inspections were input for the Checklist Event Dates "BARR INSP - DAY" and "BARR INSP - NIGHT"

For contracts with NPDES permits only:

1. AO checks the contract records for the Notice of Intent (NOI 3510-9) and reviews Key Dates to determine if the submission date has been input in the date "NOTICE OF INTENT SUBMISSION"

2. AO checks the contract records for the Notice of Termination (NOT 3510-7) and views Key Dates to determine if the submission date has been input in the date "NOTICE OF TERMINATION SUBMISSION"

3. AO checks the contract records for Storm Water Pollution Prevention Plan (SW3P) inspection reports.

4. For federal-aid contracts over $1,000,000 only, AO checks the contract records to assure that Form FHWA-47 “STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS”

has been submitted by the contractor and reviews "Checklist Event Dates" to determine if the submission date has been input in the date "FORM FHWA-47"

5. DCO checks for submission of Final Plans by the Area Office and reviews "Key Dates" to determine if the submission date has been input in the date "FINAL PLANS SUBMISSION."

Review and Approval of Final Estimates: Contract Acceptance

Time Allowed

The Area Engineer sends the DCE and DE a Group Wise (GW) notification of contract completion. At that time, the AO starts to gather information and data necessary to close the project and generate the retainage progress estimates to eliminate discrepancies and zero out MOH. The DCE inspects the project within ten days of notification. If the contract is satisfactorily completed, the DCE sends a letter, with a form 415 (Acceptance Inspection Report) or preferably an electronic communication of acceptance and releases the contractor from further maintenance. DCO changes retainage setting to 2% and sends a GW notification to the AO. This GW is filed on the T Drive under its Control Section Job number and appropriate description. After this, the AO can submit the retainage progress estimate.

DCO also enters the "date of the acceptance" in SM in "critical dates" under accepted date, in the "Actual Occurrence Date Field". The 50 allowable days start counting.

Retainage Progress Estimate

1. The DCO releases previous retainage withheld in excess of 2%

2. Retainage Progress Estimate should be generated by the AO on the same date as contract acceptance

3. AO assures that total payment for the Material on Hand (MOH) item is adjusted to zero (0.00).

4. Payment for outstanding placed quantities.

5. Mobilization

6. Barricades, Signs and Traffic Handling.

Semifinal Progress Estimate

A semifinal progress estimate to make payments on still outstanding items after the retainage progress estimate and before the final estimate may be desirable and is permissible. This is a one-day estimate pay period. This semifinal estimate is generated by AO.

Final Estimate

The AO will generate a "Last Progress Estimate" as a base for the DCO to generate the Final Estimate. At that time, approval levels will be changed in the project to DCO Staff as generator and to DCE as approver, this is done in the "Last Progress Estimate" only. This estimate will be used by the AO to settle all discrepancies and/or omissions. As in other estimates, if discrepancies cannot be conciliated, full justification documentation should be sent and discussed with the DCO, but these should be minimal, if any. Any items on the Over- and Under-Run Report (+/- 25% Tolerance on Major Items, +/- 5% Tolerance on Pay Plan Quantity (PPQ). PPQ items should be explained and accepted by the contractor and/or handled by CO. DCO generates the Final Estimate, after the AOs resolves all discrepancies; Materials, DWR and Diaries and/or of Time Charges. i.e., AO will perform steps 1-10 in, SiteManager Contract Administration Manual, Chapter 9, section 5, "Generating and

Processing the Final Estimate", and DCO performs the remaining steps, 9-12, in the same table.

At this time the AO sends to DCO the remaining Final Project Documentation, and any documents missing should be noted. AO enters the date that these papers were sent to the DCO in Key Dates, under "Records Transferred to District".

The "Last Progress Estimate" review and audit includes an in depth SM accounts reconciliation, review of e-data, (T drive stored GW and other documents) and the Project's Final Documents (PFD) (last set of hard copies, payrolls, haul tickets, etc.). Do this with the Master Checklist. Set filter in column L to Yes, and the required documents, in the correct order for the PFD box will be shown in column A.

Once the final audit is made, the Final Estimate can be generated, approved and processed for payment.

A final check can be made with the Master Checklist. Set column D to all.

Supplemental Estimate

This estimate is a last resource payment form, and should not be considered standard procedure, but exceptional recourse. "Districts process the Supplemental Estimate in SiteManager to make payments to the contractor after the Final Estimate has been approved. These payments are lump sum amounts, not payments based on placed quantities for contract line items. Districts may process Supplemental Estimates for making payment for dispute settlements resolved after payment of the Final Estimate or for payment for omissions due to errors in calculating quantities for contract line items in previous estimates disputed by the contractor after payment of the Final Estimate."1

This Standard Operating Procedure will remain in effect until revised or rescinded. Recommendations to modify or clarify this document should be submitted in writing to the Review Authority.

Approved by Lauren D. Garduño, P.E., Odessa District Engineer, July, 2003

RECOMMENDATIONS

Odessa District Mission Statement and Policy on Change Orders

New Mission: Exercise financial, chronological, and engineering control over projects through well thought out, structured, and timely use and approval of change orders (COs).

Policy: "It is the intent of the Texas Department of Transportation (TxDOT) to amend contracts whenever a significant change in the character of work occurs."

Odessa District Mission Statement and Policy on Environmental National Pollution Discharge Elimination System (NPDES)/TCEQ-Related Issues

New Mission: TxDOT, Odessa District construction sites will comply with all NPDES requirements. Working proactively with its administrator, the Texas Commission for Environmental Quality (TCEQ), the Odessa District will set the standard for environmentally friendly construction and be a role-model for other construction enterprises to follow.

New Policy: The Odessa District sees the NPDES requirements not as a burden, but as an opportunity to be part of the world environmental movement, and will go the extra mile to make a difference.

Odessa District Mission Statement and Policies Monthly Progress Estimates

New Mission: Generate, approve, and process monthly progress, retainage, semifinal, and final estimates expediently, at all District levels, in order to safeguard the interest of the State and pay the contractors in a timely manner.

New Policy: AO will send DCO all hard-copy documentation every month along with the Monthly Progress Estimate (MPE); AO will send Final Project Documentation (hard copies)

along with the Final Estimate. These documents will be part of the Monthly Progress Audit and the Final Project Audit, respectively.

New Policy: AOs will run a complete, diagnostic MPE and related reports once a month, one week before the actual MPE is due. AOs will run the XiteReport and the Contract Sampling and Testing Checklist once a week. These runs will be used to eliminate estimate- and item-level discrepancies before the actual MPE is generated.

New Policy: Monthly Progress Estimates ideally will carry no discrepancies. If a discrepancy has to be carried due to the time factor, that discrepancy has to be resolved before the next MPE.

New Policy: Area Offices (AOs) and the District Construction Office (DCO) have to process Progress Estimates in the shortest possible time.

New Policy: The Monthly Progress Estimate (MPE) deadline is 3:00PM on the third working day of the month.

Odessa District Mission Statement and Policy on Interim and Final Audits and Final Estimate

New Mission: Efficiently integrate Interim and Final Audits and Final Estimates into a well synchronized mechanism where each part functions at certain stage of the process to ensure the integrity of the project, compliance with TxDOT financial, administrative and engineering procedures and fairness to our contractors, suppliers and subcontractors. The closing procedure will be done within 50 days, from Contract Acceptance to Final Estimate Approval.

New Policy: Final Audit precedes Final Estimate Approval. Interim Audits will be Monthly Progress Audits (MPA) and will precede each Monthly Progress Estimate (MPE).

New Policy: MPE discrepancies cannot be carried from one month to the next.

The new SOPs derived from the desired objectives and the existing bottlenecks.

CONCLUSION

After careful evaluation of the research and field investigations, the following conclusions were drawn:

The procedures and safeguards implemented by TxDOT over 85 years of doing business are very well suited to deal with most construction projects. However there are two aspects that need careful attention. One is the timing. Some tasks should be done in such a way that smaller or partial tasks are distributed throughout the life of the project. In some instances, where it is appropriate, apply stricter measures to ensure timeliness. The other aspect is sequencing or documentation routing, a procedural issue. There are a great many documents that have to be made and/or handled throughout the project. Many are federal- and state-related compliance forms; others are for internal financial, administrative, and engineering control. I believe that shortening the time between the final audit and the contract payment can be accomplished by writing SOPs for four main groups of tasks and writing specific mission statements and specific policies for each set of tasks. The time-based changes and the procedure-based processes will be presented by SOP.

Time-Based Changes

1. Review and approval of monthly progress estimates. The monthly progress estimate procedure in SiteManager allows for discrepancies to be overridden, in favor of expediency, on monthly progress estimates, not so for final estimates. The problem arises when discrepancies are overridden over and over and accumulate until the project closing. Then it becomes a monumental task. In the new SOP, a discrepancy can be overridden, for expediency, but it must be resolved before the next estimate can be processed.

2. Review and approval of interim and final audits and final estimate. The interim audit should take place somewhere between the first estimate and the final estimate. Sometimes it is not done. For interim and final audits, the District Auditor checks most or all of the project's hard documentation, which include DBE (Disadvantaged Business Enterprise) and HUB (Historically Underutilized Businesses) reports and interviews, haul tickets, payrolls, etc., for every month. The new SOP changes the interim audit to a monthly audit that goes together with the monthly progress estimate. This way, the audits are always up to date. If something is wrong, it can be corrected easily because of the short time between occurrence and detection. Not so when detection and occurrence are several months apart. Also, audit time is distributed over the life of the project, rather than occurring at the time-critical project closing, leaving for final audit only the last month.

3. Storm-water pollution prevention plan (SW3P). New administration of the EPA policies was turned in March 2003 to the Texas Commission for Environmental Quality (TCEQ). The mechanisms have changed and it will take some time to adjust the operation. TxDOT policy is that every District must have a responsible person to deal with all environmental issues for the whole District. Though the policies still apply, they are now independent of payment.

Procedure-Based Changes

1. Review and approval of change orders. Change orders have to be approved before any work can start, therefore it is important to follow the procedures and routing correctly to ensure a smooth flow and expedient approval. There are many variations in change orders. To guide users, a Decision Tree and Flow Diagram for Change Orders was developed. The user is asked to make a couple of easy decisions by clicking on the appropriate choice. The program takes him or her to the

appropriate routing and procedure. On the other hand, with the Master Checklist, by clicking on the appropriate filter all the steps and checks that need to be made are made readily available to the user.

2. Review and approval of monthly progress estimates. When the cyclical filter is selected, the Master Checklist makes all the required documentation for the MPE readily available to the user.

3. Review and approval of interim and final audits and final estimate. When the appropriate filter is selected, the Master checklist makes the pertinent checklist readily available to the user.

4. Storm-water pollution prevention plan (SW3P). Similarly to the above, when the appropriate filter, SW3P, is selected, the Master Checklist makes the required documentation list readily available.

The conclusions and recommendations are described in the Following TxDOT Notice and in the actual SOPs.

REFERENCES

American Association of State Highway and Transportation Officials. (2000). *SiteManager Contract Administration Manual*, Washington, D.C.

Texas Department of Transportation. (1993). *Standard Specifications for Construction of Highways, Streets and Bridges*, Austin, Texas.

Texas Department of Transportation. (1995). *Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges*, Austin, Texas.

Texas Department of Transportation. (2003). *Contract Administration Manual*, Austin, Texas.

APPENDIX A

ENVIRONMENTAL COMMITMENT CHECKLIST AND FLOW DIAGRAM FOR USE OF THESE DOCUMENTS

ENVIRONMENTAL COMMITMENT CHECKLIST
For Construction, Maintenance and Facilities Projects

PROJECT:		DATE:	
CSJ:		DEQC:	
HIGHWAY:		*Name*	

I. Storm Water Pollution Prevention

A. Required Information and Documentation

1. Does the construction site have a Storm Water Permit? Yes ☐ No ☐* N/A ☐
2. Is a notice posted in a publicly accessible location near where construction is actively underway (and moved as necessary)? Yes ☐ No ☐* N/A ☐
3. Does the notice contain the following information:
   a. The permit number or a copy of the NOI? Yes ☐ No ☐* N/A ☐
   b. The name and telephone number of a local contact person? Yes ☐ No ☐* N/A ☐
   c. A brief description of the project? Yes ☐ No ☐* N/A ☐
   d Location of SW3P (Job site or other location). Yes ☐ No ☐*
4. Is there a copy of the Construction General Permit in the SW3P? (a copy of the Federal Register is sufficient) Yes ☐ No ☐* N/A ☐
5. Is there a copy of a Delegation of Authority Letter authorizing the inspector to sign inspection reports in the SW3P file? Yes ☐ No ☐* N/A ☐
6. Is the SW3P retained on-site at the facility that generates the storm water? (If no, where is it located _____)? Yes ☐ No ☐* N/A ☐
7. Is the SW3P updated and documented in the plans as necessary to remain consistent with any changes in design, construction, operation, or maintenance applicable to protecting surface water resources in sediment and erosion site plans or site permits, or storm water management site plans or site permits approved by State, Tribal or Local Officials for which the permittee receives notice? Yes ☐ No ☐* N/A ☐
8. Is the description of construction and waste materials expected to be stored on-site updated? Yes ☐ No ☐* N/A ☐
9. Are the following records maintained and available for inspection, or included in the SW3P?
   a. Dates when major grading activities occur? Yes ☐ No ☐* N/A ☐
   b. Dates when construction activities temporarily or permanently cease on a portion of the site? Yes ☐ No ☐* N/A ☐
   c. Dates when stabilization measures are initiated? Yes ☐ No ☐* N/A ☐
10. Did stabilization occur within 14 days at locations where soil disturbing activities have ceased or will cease for at least 21 days or were temporary measures installed? Yes ☐ No ☐* N/A ☐

B. General Conditions

1. Are Best Management Practices (BMPs) being utilized? Yes ☐ No ☐* N/A ☐
2. Are silt fences, buffer strips, or equivalent sediment controls at a minimum used for all side-slope and down-slope boundaries of the construction area? Yes ☐ No ☐* N/A ☐

C. Controls & Measures

1. Have erosion and sediment controls been designed to retain sediment on-site to the extent practical during the construction phase? Yes ☐ No ☐* N/A ☐

*** Contact Project Engineer**

2.	Were control measures, in accordance with manufacturer specifications and good engineering practices:			
	a. Properly selected?	Yes ☐	No ☐*	N/A ☐
	b. Properly installed?	Yes ☐	No ☐*	N/A ☐
	c. Properly maintained?	Yes ☐	No ☐*	N/A ☐
	d. In effective operating conditions?	Yes ☐	No ☐*	N/A ☐
3.	Are controls in place to minimize:			
	a. Dust generation?	Yes ☐	No ☐*	N/A ☐
	b. Off-site vehicle tracking of sediments?	Yes ☐	No ☐*	N/A ☐
4.	Are off-site accumulations of sediment removed at a frequency sufficient to minimize off-site impacts? (sediment near off-site inlets, etc)	Yes ☐	No ☐*	N/A ☐
5.	Is sediment removed from the sediment traps or sediment ponds when design capacity is reduced by 50%?	Yes ☐	No ☐*	N/A ☐
6.	Are litter, construction debris, and construction chemicals exposed to storm water prevented from becoming a pollutant source from storm water discharges? (e.g., screening outfalls, picked up daily)	Yes ☐	No ☐*	N/A ☐
7.	Are solid materials including building materials being discharged? (except those authorized by a permit issued under section 404 of the CWA)	Yes ☐*	No ☐	N/A ☐
8.	Were velocity dissipation devices (i.e. rock filter dams, holding ponds, etc) placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to the water course?	Yes ☐	No ☐*	N/A ☐

D. Inspections

1.	Were the inspections performed at least once every 14 calendar days and within 24 hours of the end of a 0.5 inch or more rain event (or once every 30 days in areas with less than an average 20 inches of rainfall per year)? (*Note: some projects may require more frequent inspections, refer to the plans*).	Yes ☐	No ☐*	N/A ☐
2.	Did the inspector check the following:			
	a. Disturbed areas of the construction site that have not been stabilized?	Yes ☐	No ☐*	N/A ☐
	b. Areas used for storage of materials that are exposed to precipitation?	Yes ☐	No ☐*	N/A ☐
	c. Structural control measures?	Yes ☐	No ☐*	N/A ☐
	d. Locations where vehicles enter or exit the site?	Yes ☐	No ☐*	N/A ☐
3.	Based on the inspection, are the SW3P Sheet and SW3P Layouts modified within 7 calendar days following the inspection?	Yes ☐	No ☐*	N/A ☐
	Is it documented and available for inspection?	Yes ☐	No ☐*	N/A ☐
4.	Based on the inspection, are controls and measures modified or added before the next anticipated storm event (or as soon as practicable)?	Yes ☐	No ☐*	N/A ☐
5.	Did the inspection Summary Report include:			
	a. The name of the inspector?	Yes ☐	No ☐*	N/A ☐
	b. The date(s) of the inspection?	Yes ☐	No ☐*	N/A ☐
	c. Measures/area inspected?	Yes ☐	No ☐*	N/A ☐
	d. Actions needed/taken as a result of the inspection?	Yes ☐	No ☐*	N/A ☐
	e. Signature of inspector with certification statement?	Yes ☐	No ☐*	N/A ☐
	f. Inspector properly delegated in writing to EPA?	Yes ☐	No ☐*	N/A ☐

*** Contact Project Engineer**

II. Water Resources Compliance

A. USAC Permits

1. US Army Corps of Engineers (USACE) Permits: Does the project have a USACE (Section 10 or Section 404) permit?	Yes ☐	No ☐	N/A ☐
a. If yes, is a copy of the permit kept onsite (in the form of Nationwide Permit text and/or a letter or other documents from the USACE)?	Yes ☐	No ☐*	N/A ☐
b. Are any Project Specific Locations, on or off Right-of-Way, that are *directly related to the USACE permit* addressed in the permit or Corps letters to the contractor (for off ROW PSLs)?	Yes ☐	No ☐*	N/A ☐
c. Has clearance been obtained for any changes in design or construction methods in the areas covered by the permit?	Yes ☐	No ☐*	N/A ☐
d. Does the project meet all conditions listed in the permit?	Yes ☐	No ☐	N/A ☐
2. Is a copy of the completed Section 401 Water Quality Certification Tier I checklist (or other specific Section 401 requirements) attached to the permit?	Yes ☐	No ☐*	N/A ☐
a. Does the project have the BMPs installed as designated in the Tier I checklist or as otherwise specified?	Yes ☐	No ☐*	N/A ☐
b. Are the BMPs working effectively? (If not, immediately bring the problem to the attention of the project engineer)	Yes ☐	No ☐*	N/A ☐
c. Are there wetlands on the project site?	Yes ☐	No ☐	N/A ☐
d. Are wetlands that are required to be preserved by the USACE permit being effectively protected?	Yes ☐	No ☐*	N/A ☐

B. Other Water Requirements

1. Does the project require an Edwards Aquifer Protection Plan (for central Texas counties Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, & Williamson only)	Yes ☐	No ☐	N/A ☐
a. If yes, is a copy of the Water Abatement Plan kept on-site?	Yes ☐	No ☐*	N/A ☐
b. Are all appropriate conditions affecting construction being met?	Yes ☐	No ☐*	N/A ☐
2. Does the project have a US Coast Guard Section 9 permit?	Yes ☐	No ☐	N/A ☐
a. If yes, is a copy of the permit kept onsite?	Yes ☐	No ☐*	N/A ☐
b. Are all appropriate conditions affecting construction being met?	Yes ☐	No ☐*	N/A ☐
3. Does the Project fall under the requirement of the Texas Coastal Management Plan?	Yes ☐	No ☐*	N/A ☐
If yes, are all appropriate conditions affecting construction being met?	Yes ☐	No ☐*	N/A ☐

III. Other Environmental Requirements

A. Vegetation Management

1. Are there any mitigation issues involving vegetation impacts?	Yes ☐	No ☐	N/A ☐
2. Is the ROW to be used for mitigation?	Yes ☐	No ☐	N/A ☐
3. Is there any vegetation that requires fencing, or other protection, to preserve it from damage or removal?	Yes ☐	No ☐	N/A ☐
4. Are there any vegetative management issues within the project?	Yes ☐	No ☐	N/A ☐
5. Has project been coordinated with district environmental staff before removal of trees/shrubs within proposed ROW?	Yes ☐	No ☐*	N/A ☐
6. Has project been coordinated with district environmental staff to salvage native plants in project area?	Yes ☐	No ☐*	N/A ☐
7. Invasive species addressed as required?	Yes ☐	No ☐*	N/A ☐
8. Is revegetation/landscaping with native grasses and shrubs in accordance with project plans?	Yes ☐	No ☐*	N/A ☐
9. Are recycled plant trimmings to be used as mulch and to reduce runoff?	Yes ☐	No ☐*	N/A ☐

*** Contact Project Engineer**

10.	Is any stockpiled organic layer of soil from existing wetlands to be used on mitigation site?	Yes ☐	No ☐*	N/A ☐
11.	Are the wetlands to be preserved already delineated?	Yes ☐	No ☐*	N/A ☐
	B. Noise			
1.	Are there any noise level concerns within the project?	Yes ☐	No ☐	N/A ☐
2.	Minimized construction noise:			
	a. In residential areas	Yes ☐	No ☐*	N/A ☐
	b. In sensitive receptors in area.	Yes ☐	No ☐*	N/A ☐
	C. Historical And Archeological			
1.	Are there any historical or archeological issues in the PS&E?	Yes ☐	No ☐	N/A ☐
2.	Archeological survey to be conducted during/after ROW purchase. Parcel #_____	Yes ☐	No ☐	N/A ☐
3.	Are there any archeological surveys needed to be done on outstanding parcels? Parcel #_____.	Yes ☐	No ☐	N/A ☐
4.	Are there any archeological sites that must be avoided until mitigation is complete and THC concurs no additional work is required prior to construction?	Yes ☐	No ☐	N/A ☐
5.	Are there any designated avoidance areas?	Yes ☐	No ☐	N/A ☐
6.	If yes, are they delineated such that they are not disturbed? (If disturbed, notify project engineer immediately)	Yes ☐	No ☐*	N/A ☐
7.	Are there any historical elements to be salvaged or protected? (i.e. bridge plaques or historic bridge rail)	Yes ☐	No ☐	N/A ☐
8.	If any archeological evidence were discovered during the course of construction (bones, burnt rock, flint, pottery), were the TxDOT Emergency Discovery Guidelines followed?	Yes ☐	No ☐	N/A ☐
	D. Change Orders			
1.	Has the district environmental staff reviewed all draft change orders to determine whether an environmental analysis and/or resource agency coordination is necessary?	Yes ☐	No ☐*	N/A ☐
2.	If any environmental analyses are required, has it received clearance?	Yes ☐	No ☐*	N/A ☐
	E. Federal Listed and Proposed Threatened and Endangered Species, Critical Habitat, State Listed Species, and Candidate Species			
1.	Are there any listed species, etc., within project limits?	Yes ☐*	No ☐	N/A ☐
2.	Is there designated critical habitat in the project area?	Yes ☐*	No ☐	N/A ☐
3.	Was there consultation with the U. S. Fish and Wildlife Service and/or National Marine Fisheries Service for the project?	Yes ☐	No ☐	N/A ☐
4.	If yes to 1, 2, or 3, are there any commitments or requirements for on-site mitigation for endangered species?	Yes ☐	No ☐	N/A ☐
	a. Are they being done properly?	Yes ☐	No ☐	N/A ☐
5.	Are there any species/wildlife commitments for scheduling the construction activities for the project?	Yes ☐	No ☐	N/A ☐
	a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐
6.	Are there any requirements for species monitoring during construction?	Yes ☐	No ☐	N/A ☐
	a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐
7.	Are there any commitments for state listed species within the limits of the project?	Yes ☐	No ☐	N/A ☐
8.	Does the inspector have a current list of species on the "watch list" for the project?	Yes ☐	No ☐*	N/A ☐
9.	Are pictures and descriptions that help identify these species available on the project?	Yes ☐	No ☐*	N/A ☐

* **Contact Project Engineer**

10.	Have any of the species been spotted on the project site during construction?	Yes ☐*	No ☐	N/A ☐
11.	Do TxDOT and Contractor staff know what they do if they see a listed species on-site?	Yes ☐	No ☐	N/A ☐

F. Essential Fish Habitat

1.	Is there any essential fish habitat within project limits?	Yes ☐*	No ☐	N/A ☐
2.	Is there designated essential fish habitat in the project area?	Yes ☐*	No ☐	N/A ☐
3.	Was there consultation with the U. S. Fish and Wildlife Service and/or National Marine Fisheries Service for the project?	Yes ☐	No ☐	N/A ☐
4.	If yes to 1, 2, or 3, are there any commitments or requirements for on-site mitigation for essential fish habitat?	Yes ☐	No ☐	N/A ☐
	a. Are they being done properly?	Yes ☐	No ☐	N/A ☐
5.	Are there any essential fish habitat commitments for scheduling the construction activities for the project?	Yes ☐	No ☐	N/A ☐
	a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐

G. Natural Habitat Commitments

1.	Are there any commitments for natural habitat mitigation in the right of way other than vegetation management issues?	Yes ☐	No ☐	N/A ☐
2.	Are the mitigation commitments stated in the project plans?	Yes ☐	No ☐	N/A ☐

H. Migratory Birds

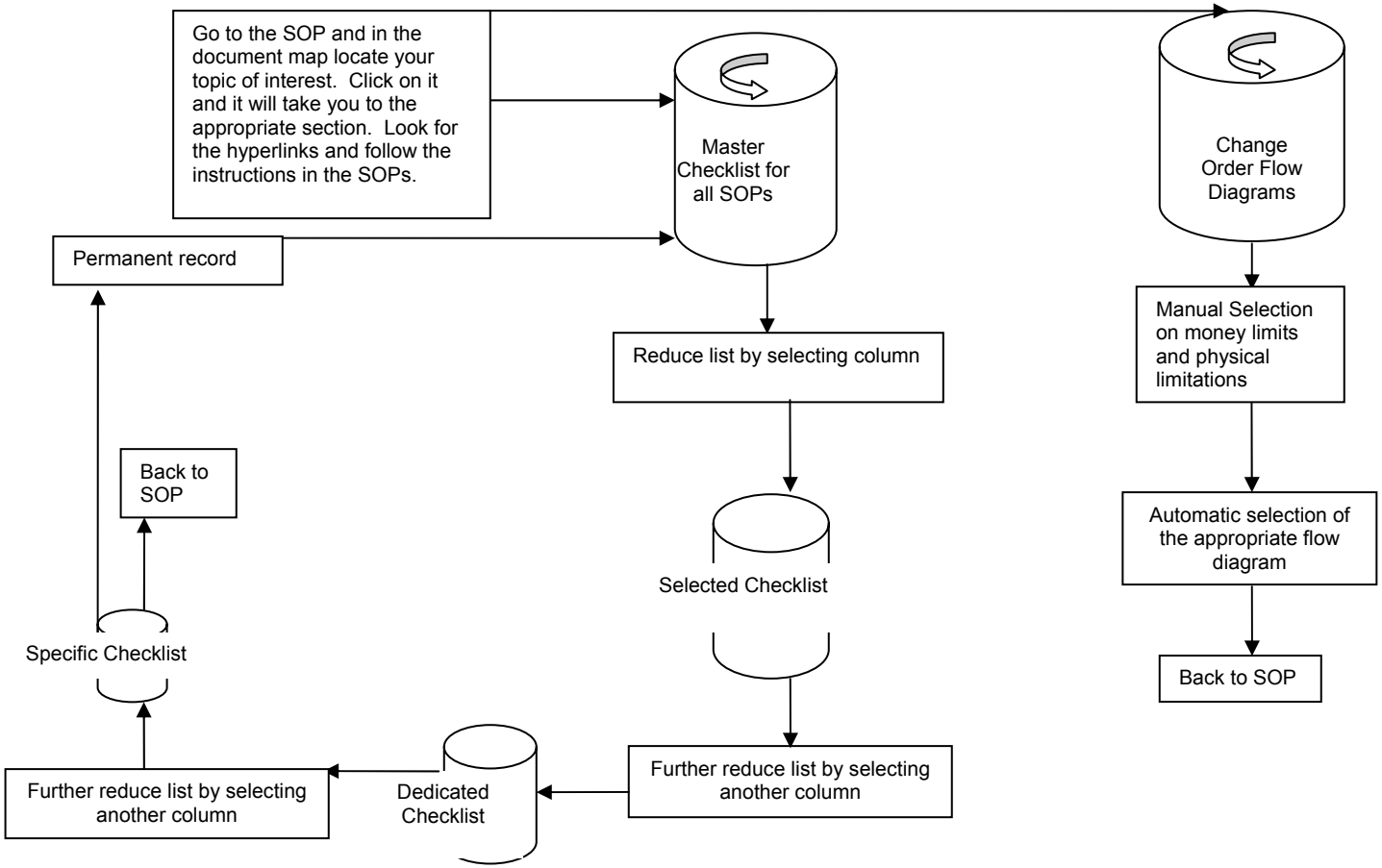
1.	Are there any concerns that migratory birds are nesting within project limits?	Yes ☐*	No ☐	N/A ☐
2.	Have migratory birds or nests been noticed on the project in such a situation that a 'take' of the birds might occur?	Yes ☐*	No ☐	N/A ☐
3.	If a migratory bird 'take' might occur, has coordination with the resource agencies cleared the action?	Yes ☐	No ☐	N/A ☐

I. Hazardous Materials

1.	Are there any hazardous materials on the site or are there plans to use any hazardous materials during construction?	Yes ☐*	No ☐	N/A ☐
2.	Is there evidence of hazardous materials not identified in the PS&E? (for example underground storage tanks, containers, spills) If yes, immediately contact the Area Engineer.	Yes ☐*	No ☐	N/A ☐

*** Contact Project Engineer**

Flow Diagram for the Use of the Standard Operating Procedures, Master Checklist and Decision Tree and Flow Diagram for Change Orders



APPENDIX B

WORKSHOP-RELATED CORRESPONDENCE

Texas Department of Transportation

MEMORANDUM

TO: Daniel L. Dalager, P.E. 2/10/03
Douglas W. Eichorst, P.E.
Mohammad Moabed, P.E.
Kelli Revennaugh, P.E.

CC: Steve Smith, P.E.
Glen Larum
Lennard Byrd

FROM: Santiago Reachi, P.E

Phone: (915) 498-4618
FAX: (915) 498-4689
Email: sreachi

ORIGINATED BY: Odessa Dist. Construction, Laboratory & Pavement

SUBJECT: Project Control and Auditing

○

It is District Policy to pay the contractors as soon as possible. The first of several steps towards diminishing the actual time spent on this procedure will be developed in a workshop, at the Odessa District Office, for and by the Areas Bookkeepers, the District Auditor and the Construction Auditor and Office Manager, as agreed on Wednesday's meeting. Mr. Glen Larum has graciously agreed to moderate this workshop.

The Area Engineers support and backing on this initiative is essential for the success of the workshop, which should result in diminished time and effort spent on this procedure.

Please see when you can allow your bookkeeper to spend one day, but make provisions for two, in the District office, from 9:00 AM to 4:00 PM, for the aforementioned workshop. The tentative date is March 11 (and possibly 12), please let me know if this date is agreeable to you, if not, March 26 (and possibly 27) could be an alternative.

Once a date is settled I will send information and guidelines directly to each workshop participant.

I thank you for your cooperation on this matter.

Texas Department of Transportation

MEMORANDUM

TO:

Pam Brown
Karen Short
Lennerd Byrd
Kathy Schlegel
Melonie Ikeler
Sharon Oldaker
Kathryn Rauscher

Cc.

Lauren D. Garduño, P.E.

Stephen G. Smith, P.E.

Glen Larum

Dan Dalager, P.E.

Kelli Revennaugh, P.E.

Dan Eichorst, P.E.

Mohammad Moabed, P.E.

FROM:

Santiago Reachi, P.E.

March 21, 2003

Phone: (915) 498-4618
FAX: (915) 333-9189
Email: sreachi

ORIGINATED BY:

Odessa District
Construction & Laboratory

SUBJECT:

Project Control and Auditing Workshop

-

There is backing and support for this effort at all levels of the District, and with your know-how and enthusiasm this workshop should be a success. Some calmed preparation before the workshop will increase the quality and quantity of the outcome.

The idea of this workshop is to use your expertise in administration and control, and let you collectively design the procedures which all of you will use and that will result in a swift, timely and continuous flow of the required information and documentation. This is to be done by you collectively, since you deal with these procedures every day, and you will be using your own design it in the future. No one is better qualified to come up with a procedure and best practice initiative than you are.

One of the intended results from the Workshop is a complete, accurate, updated and simple document check list and an appropriate procedure for distributing and filing these documents during each phase or cycle of a project, which will be uniformly generated and easily checked and processed.

Attached is a list, it is not a model and it does not reflect the desired format. Use it as a guide, please look it over and modify or make another by chronological order and/or project cycles, check for completeness. Look for anything missing or anything redundant or something that you think would be beneficial to add. Please have it ready to share at the workshop.

Other intended results from the Workshop are:

1. A procedure for an understanding of how every TxDOT generated, non-SiteManager document is to be stored on the T drive in a timely manner

2. How to best use appropriate document templates: T:\ODA\750 Construction-Lab-Pavement\Template Instructions, et al. E.g.
    a. Annual Contract Compliance Inspection
    b. Project Completed and Accepted Memo
    c. Change Order
3. A procedure for an understanding of how to use the Correspondence Log, Document Submission Log, Key Dates, and Checklist Event Dates features of SiteManager (reference Chapter 4 of the “SiteManager Contract Administration Manual”).
4. A procedure for an understanding of how to use GroupWise as the primary communication tool

Share your thoughts on how to:

1. Design a way to store the physical project documentation in order to have a complete standard template that is easy to fill, easy to detect missing documents and easy to audit.
2. Handle information/documentation only once.
3. Reduce hard copies to a minimum.
4. To beat the deadline. Send it in when ready.
5. To best interact/cooperate with construction inspectors and the District Construction Office.

6. How to best incorporate all documents to weekly monitoring by generating reports and estimates, maintaining data, files, documents, lab reports, change orders, etc., eliminating discrepancies and keeping information up to date, to make monthly and final estimates a routine matter, not a crisis.
7. Could there be any value for Area Bookkeepers to spend time at DCO during a project closeout?
8. Any additional ideas not mentioned here.

The workshop will be on March the 11th., 2003, from 9:00AM to 4:00PM (but could extend to the 12th.) at the Odessa District SCR. There is time, so please send me your thoughts by Thursday, February the 28th., 2003, so that an agenda can be made up to accommodate your inputs.

Texas Department of Transportation

MEMORANDUM

TO: Kathy Rauscher
CC. Stephen Smith, P.E.
Pam Brown
Mohammad Moabed, P.E.
Jerry McGuairt
Arturo Gonzales
Enrique Carrales
Feb 6/03

FROM: Santiago Reachi, P.E.
Construction Engineer III

Phone: (915) 498-4618
FAX: (915) 498-4689
Email: sreachi

ORIGINATED BY: Odessa Dist. Construction, Laboratory & Pavement
SUBJECT: Payment for disputed quantities and unit prices/Ft. Stockton
Ref: Contract ID # 029301024

After the aforementioned project was closed the following dispute arose with the contractor:

Item code	Description Quantity Unit Price Total
01320516	Embankment 4,181.0 CY $1.28/CY $5,351.68

01690502	Soil Ret Blnkt 1,162.5 SY $1.30/SY $1,511.25
04320524 4.39 CY	RIPRAP(CONC) (CL B) (4”) $350.00 $1536.50
04320525 2.47 CY	RIPRAP(CONC) (CLB(6”) $350.00 $ 864.00
52490501 247 LF	TEMPSEDMT CONT FENCE $ 3.30 $ 815.10
52490503	TEMPSEDMTCONT FENCE(REMOV) 247 LF $ 0.50 $ 123.50
Total	$10,202.53

I got help from Jerry and Arturo spoken to Enrique Carrales in Austin, who indicated that the aforementioned project was not closed, but active and that since an agreement with the contractor had been reached a lump sum payment in the supplemental estimate entry should be made. I consulted with Pam and all seems OK. Please go to contractor payments, estimates, generate estimate, fill contract # 029301024, supplemental type, dollar amount $10,202.53 fill in remarks (final payment agreed with contractor on first two items because there had been a 50%+ and a 25%+ under run respectively, the other three items had been overlooked until the contractor call it to our attention.

Texas Department of Transportation

MEMORANDUM

To: Stephen Smith, P.E.

From: Santiago Reachi, P.E.

Subject: Midland Office visit/Sharon

Date: 1/31/03

-

As scheduled I spent the morning and part of the afternoon with Sharon in the Midland Office.

Sharon explained to me the process she goes through from beginning to end of a project. I took notes which will be helpful in developing the SOP.

She went into the process of paying a performance bond charged against move-in through SiteManager. She ran several reports to check discrepancies and /or deficiencies.

She recognized that problems had occurred in the CIS to SM transition and that SM was useful, but needed time to become the tool it is intended to be.

She acknowledged the possibility, at full load, for her office to prepare the final documentation within 21 days, instead of 28. The limiting factors being payrolls (14 days), DBE documentation (10-15 days), and FHWA47 form preparation.

She shared with me the form she uses as a check list for finalizing the projects, which has the same basic information as the one used by DCO.

If you have a chance, please thank Doug and Sharon for their time and gracious cooperation.

DATE:

START OF MEETING:___ _ ___ ____

- **AGENDA FOR PRECONSTRUCTION CONFERENCE**

I PURPOSE

The purpose of this meeting is to secure close cooperation between the contractor, law enforcement agencies and Department of Transportation personnel in promoting traffic safety on construction projects; and, through such cooperation, to secure better driver compliance with State Laws and safe driving practices through the limits of construction projects.

II INTRODUCTIONS (Roster of Attendees)

Individual Introductions
(Have attendees introduce themselves and identify their firm or organization.)
Departmental Introductions
Resident Engineer: _____

Project Engineer: _____

Project Inspector (s):_____

III REVIEW OF PROJECT - BY REPRESENTATIVE OF DEPARTMENT

Project Identification

Project: _____

Control: _____

Hwy: _____

County: _____

Limits: _____

Length _____

Type of Work: _____

_____

Construction Costs

Total Bid Items _____

% State/Fed-Aid: 20% State / 80% Federal _____

City/County __none_____

Working Days (Estimated) _____

IV CONSTRUCTION PLANS BY CONTRACTOR

Item 8 of the Standard Specifications requires the Contractor to submit a chart or brief outlining the manner of prosecution of the work he intends to follows.

Starting Date:_____

Time charges begin: _____

Estimated beginning work day:_____

Set Barricades: _____

V PROTECTION OF TRAFFIC CONTROL

9. Traffic Control Plan.
   The Traffic Control Plan (TCP) included in the plans shows the minimum requirements for construction signing and barricading during the course of this project. Other additional

signs, barricades, flaggers, etc., may be required when and if conditions warrant.
It is the Contractor's responsibility to both supply and maintain all necessary traffic control. These devices must be standardized as to wording, size, construction, etc., as required by the Texas Manual on Uniform Traffic Control Devices.
Should the Contractor wish to modify or utilize a different Traffic Control Plan from that shown in the plans it will be necessary to obtain approval from the State prior to implementation. Request for modifications or changes must be in writing along with any necessary drawings.

10. Flaggers
    Since flaggers are responsible for the safety of both the traveling public and the contractor's personnel, it is important that qualified persons be selected as flaggers. The Contractor's attention is directed to Part VI of the Texas Manual on Uniform Traffic Control Devices for information on selection of flaggers and flagging procedures. We would point out that all flaggers must wear an orange vest, shirt, or jacket.
11. Speed Zoning

_____

_____

12. Inspection of Traffic Control Devices
    At approximately two week intervals the State will conduct formal inspections of the contractor's traffic control devices, with alternate inspections being conducted during the hours of darkness. Informal inspections may be performed at any time. Copies of the inspection reports will be furnished to the Contractor and any deficiencies must be corrected as soon as practical.
    To assure proper coordination between the State and the Contractor concerning the Traffic Control Plan and the various traffic control devices, both the Department and the Contractor will appoint a person responsible for conducting the bimonthly inspections.

Department Responsible Person (DRP)

Name: _____

Phone: _____

Contractor Responsible Person (CRP)

(Need letter designating CRP)

Name:_____

Phone: ___ _____

Barricade/Sign Supplier_____

Note: BC Sheets require a copy of Manufacturer's certification of flashers.

VI REVIEW OF POLICE SUPERVISION AVAILABLE

FROM HIGHWAY PATROL, CITY POLICE, ETC.

1. Information on the location and shifts of patrolmen in area.
2. Review procedure for the transmission of copies of all accident reports to Resident Engineer.
3. DPS Sergeant and/or Patrolman

Name: _____DPS

Mailing Address:_____

Phone No. _____

4. Other:_____

_____

_____

_____

VII PLAN LOCAL PUBLIC SAFETY EDUCATION OF INFORMATION

ACTIVITIES USING NEWSPAPERS, RADIO, ETC.

Will be handled by TXDOT Public Information

Officer0_____

_____

VIII FORMULATE PLANS FOR CONTINUOUS LIAISON AND COORDINATION.

Contractor's Representative

Name _____ Address_____

Telephone No.:_____

Area Engineer for TXDOT

Name _____ Address_____

Telephone No.:_____

Local Officials where necessary:_____

IX EQUAL EMPLOYMENT OPPORTUNITY PROGRAM (FEDERAL AID PROJECTS ONLY)

During the performance of a Federal-Aid contract, it is the intent of the Department to determine that contractor conducts all aspects of his employment practices without discrimination as to race, color, religion, sex or national origin. Further, it shall be determined if the contractor has implemented an acceptable Equal Employment Opportunity Affirmative Action Program.

1. Contractor's EEO Officer
   (Letter designating EEO Officer)
   The Contractor must designate an EEO Officer for the project. This person must be capable because of position in the company, authority and experience of promoting an active and effective EEO program.

2. Contractor's EEO Meetings
   Prior to beginning of work, the contractor must conduct an EEO Policy Meeting to explain and/or review the Company Policy and its implementation with all supervisory and personnel office employees who will be directly connected with the project. A copy of the records of this meeting must be submitted to the Area Engineer. The contractor is required to conduct these meetings at intervals not to exceed six months during the period of construction.

3. Employment Data Reports
   The submission of employment data reports (Form PR-1391) is required for any month of July that the contractor or any covered subcontractors performed work under the contract.

4. Training Special Provision (If in contract)
   The Contractor shall submit for approval, prior to commencing construction, the number of trainees to be trained in each selected classification. The contractor shall also specify the starting time for training in each of the classifications - What training program will be used?

5. DBE Requirements SBE %: .

The Contractor shall take all necessary and reasonable steps to meet the goals for this contract. (See attached list from D-6 of eleven items to be discussed at the Pre-Construction Conference). The contractor's performance in meeting his approved goal will be monitored by the State.

The contractor's attention is directed to the applicable Special Provisions for a full explanation of his obligations and responsibilities under this contract. DBE Monthly Progress Reports will be required monthly on forms furnished by D-6. Original to D-6 with two copies to District.

X LABOR LAWS

The contractor shall submit a letter designating the Payroll Supervisor for this project. The contractor shall submit a copy of all subcontracts. The contractor and any approved subcontractors shall submit copies of their weekly payrolls.

XI SAFETY AND HEALTH

(Letter designating Safety Officer)

It is the State's responsibility to monitor contract operations for conformance to the various laws concerning safety and health. However, it is the contractual obligation of the contractor to comply with State and Federal construction safety standards. Further, it is the contractor's responsibility for seeing that subcontractors comply with safety standards.

To document the contractor's Accident Prevention Program the contractor must answer the following questions:

13. Does the contractor have a definite safety program? _____yes_____
14. Does the program have the active and continued support of the company management? ____yes____
15. Has responsibility for safety been assigned to a specific top company official? __yes___
16. Does the contractor make frequent safety inspections of operations on the project? ___yes___
17. Does the contractor discuss with his employees how to recognize and avoid unsafe conditions and practices related to their individual work assignments? ___yes___
18. Are all occupational injuries and illnesses investigated by the contractor, recorded, and reports? ___yes___
19. Does the contractor keep informed on governmental safety regulations and standards? ___yes___

XII PROBLEM ESCALATION LADDER:

TXDOT

CONTRACTOR

_____ Same Day _____

_____ Same Day _____

_____ Second Day _____

_____ Third Day _____

_____ Fourth Day _____

Texas Department of Transportation

MEMORANDUM

TO: Stephen G. Smith, P.E.

March 21, 2003
Director of Construction

C.C. Glen Larum

ORIGINATED BY: Odessa Dist. Construction Laboratory & Pavement

FROM: Santiago Reachi, P.E. Construction Engineer
Phone: (915) 498-4618
FAX: (915) 498-4689
Email: sreachi

SUBJECT: Report on the Project Documentation Workshop

Ref: Project Control

○

As scheduled the workshop was held yesterday on time with no absentees. The training room was well set up, with all equipment functional.

Mr. Larum got the meeting started with "empanadas" and coffee, introductions, years of experience, pet stories, etc.

Mr. Larum outlined the agenda, emphasizing the main two main deliverables, 1) the documentation checklist and 2) the order or sequence the project final documentation box should follow.

I made a presentation where the following points were made:

- Documentation timeliness and completeness
- Use of GroupWise, T Drive (retrieve and store) and SiteManager
- Again on timeliness and completeness of paperwork
- The checklist, again
- The sequence of the project final documentation box, again
- The Workshop

Some discrepancies of opinion emerged and settled. There were some timely interventions by Mr. Byrd.

The documentation sequence was discussed and postponed.

The "Guide List" was put on screen and each item discussed and modified to everyone's satisfaction. For time's sake not all modifications were made on screen, but on paper, here Karen was very helpful. Then we went back to the documentation sequence. Pam was asked what sequence would best suit her to ease the auditing process; she replied that it made no difference. Then the three experienced bookkeepers, Kathryn, Kathy and Sharon compared notes, tactics, binders vs. files, etc. and came up with a consensus sequence. Unfortunately time ran out, but they agreed to put it together and send it in by the end of the month.

Next Step

1. I will correct the checklist, as agreed upon yesterday, go over it with you and with you approval post it on the T drive for standardized District use. Subsequently I will add hyperlinks, filters, etc., where possible.

2. When I get the project final documentation sequence I will go over it with Pam, have you authorize it and post it on the T drive for standardized District use .

3. I believe that all points were understood and the main two deliverables were obtained.
4. The workshop was successful!

Separate comments

1. Training on SiteManager is evidently necessary, especially in the area of material's testing and handling discrepancies. These, they said, takes up most of their time and do not feel at ease doing it and hampers the weekly SiteManager self checking procedure Also SiteManager's capabilities of reporting and storing have to be well understood before phasing-out paper can be accomplished.

2. Resentfulness was clearly voiced at having to obtain (wait) for revision and approval before their NOIs and NOTs can be sent in. They feel very capable, and relay on their AE to check it before signing, to do these tasks without having their work checked by DCO.
3. All bookkeepers seem to have their AEs in very high esteem. Attachment 2

Texas Department of Transportation

MEMORANDUM

March 21, 2003

TO: Brenda Pierce

Karen Short
Kathryn Rauscher
Kathy Schlegel
Lennerd Byrd
Melonie Ikeler
Pam Brown
Sharon Oldaker

C.C.
Dan Dalager, P.E.
Dan Eichorst, P.E.
Glen Larum
Kelli Revennaugh, P.E.
Lauren D. Garduño, P.E.
Mohammad Moabed, P.E
Stephen G. Smith, P.E.

○

Project Documentation Workshop

Problem Statement. The sixty day (32 Area Office+28 District Office) time period, from project approval to closeout payment, is not being met.

Solution Statement. The time period, from project approval to closeout payment, will not only be met in less than sixty days, it will be done in less than sixty days.

Solution

The Area Offices

1. Use the prime contractor to gather and timely deliver all required paper work for him, the subs, suppliers and haulers. Maximum delay-2 months on monthly estimates. If the contractor takes more than two months to deliver the proper complete documentation advise the District Director of Construction. For final estimates, ASAP, because the final estimate cannot be generated and therefore the final payment, without the complete set of documents.

2. Arrange the physical documentation to be sent to the District Office (DO), in a pre-established pattern throughout the life of the project in such a way that it is complete at the end of each monthly estimate and therefore easier to timely complete the rest for the final estimate and delivery to the DO.

3. Make sure the inspector enters daily and correctly the Daily Work Report (DWR).
4. Make sure all lab reports are entered into SM and discrepancies resolved.

5. Make sure all change orders have been properly approved and entered into SM.

6. Handle soft and hard documents only once.

7. Run your reports and estimates weekly to identify any problems, missing or incorrect data, and fix them at that time. This will insure that all past entries into SM are correct, complete and without discrepancies. Eliminating the need to go back and rework an already finished set of documents.

8. Follow existing Standard Operating Procedures (SOPs) which insure the quality and integrity of the project. New Departmental and/or State wide SOPs will be issued shortly on
    a. Change Orders

    b. Final Estimates and Approval Process

    c. Interim (See attachment 6) and Final Audits

    d. Monthly Progress Reports

e. SW3P Records Management and Audits SOPs will be substituted for a more robust Procedures and Compliance SOPs that will encompass all of the Texas Commission for Environmental Quality (TCEQ) requisites (which are many). I believe that this will be handled separately from the other documents and by a designated Department Responsible Person. See attachment 1. Also TCEQ has put the newly approved CGP and forms up on their web site:

http://www.tnrcc.state.tx.us/permitting/waterperm/wwperm/construct.html#forms

f. District Sourcing Letter. See attachment 2

9. Communications, forms and templates

a. GroupWise as our prime communication tool

- Send communications to a group, including the prime recipient, not to the prime recipient only

- GroupWise consecutive same subject communications should replace memos and be timely (auto-time/date) stored as a chronological record word doc. in the T drive, (ODA/AO/CJS/ Correspondence)

b. T drive storage-retrieval/CJS ID

- Every TxDOT generated, non-SiteManager document is to be stored on the T drive by AO & CJS in a timely manner.

c. Use templates on the T drive, e.g.

- Annual Contract Compliance Inspection
- Project Completed and Accepted Memo
- T:\ODA\750 Construction-Lab-Pavementtemplate instructions

1. Consistent use of SiteManager features, such as:

a. Correspondence log
b. Document submission log
c. Key dates
d. Checklist event dates
e. Subs set up in SiteManager regardless if they are DBE, HUB, or SBE's
f. Change Orders

2. Documentation-Generating, receiving, using and archiving

a. Generating documents

i. The governing method is to generate by entering information into SM

ii. If SM does not have the capability the preferred method is to

1. generate documents by using templates from the T drive
2. send these populated templates by GroupWise
3. store the GW Instead of memos) and the document in the T drive by CJS number
4. Avoid, when possible, paper documents
5. Simple memo by GW, storing the original data and every subsequent copy with added messages in the same name space. I.e. xyzzzz
   original re: xyzzzz
   subsequent

b. Receiving documentation or data

i. Physical documentation has to be timely stored, if needed the information forwarded and/or acknowledged.

1. If the document belongs in the "Project Box", put it there, in the appropriate place.
2. If the data can be entered in SM, templates, memos, etc., do so and eliminate further use of paper.

c. Use the information as soon as you get it, if possible.

i. Handle information only once.
ii. Inform by groups, not the recipient alone.

d. Archive the information as soon as you have used it.

i. Preferably in SM, T drive or other e archive
ii. Required physical documents in the appropriate place in the "Project Box"

Checklists. There are so many documents and forms that must be filled that a checklist is necessary. I compiled a list of documents and forms to serve as a base to develop in this workshop a new practical one that everyone in the District uses. It should include, but is not limited to, form name, used in (Fed, State, etc.), when used, how often, where can it be found (SM, T drive, etc.). See attachment 3. Also web forms can be found at the TxDOT intranet.

Texas Department of Transportation

MEMORANDUM

March 21, 2003

TO:
C.C.

Dan Dalager, P.E.
Dan Eichorst, P.E.
Glen Larum
Kelli Revennaugh, P.E.
Lauren D. Garduño, P.E.
Mohammad Moabed, P.E.
Stephen G. Smith, P.E.

FROM:
Construction Engineer

Santiago Reachi, P.E.

Phone: (915) 498-4618
FAX: (915) 498-4689
Email: sreachi

ORIGINATED BY:

Odessa Dist. Construction, Laboratory & Pavement

SUBJECT: Project Control and Auditing Workshop

Ref:

Held March 20, 2003

○

I want to thank all of you very much for your attendance yesterday to the Project Control and Auditing Workshop. As expected your active participation was the prime element in agreeing on the project documentation checklist for the District. I will correct the checklist, as agreed, check it, and after the proper approval, post it on ODA's Homepage. Subsequently I will add hyperlinks to forms and/or templates as well as file storage locations and set auto filters, where possible, and repost it on ODA's Homepage-will advise.

The discussion on the project final documentation sequence led to an understanding on how this sequence will be. It showed your expertise on the subject and good disposition to collaborate. Though time ran out, having set the basis, your commitment to contribute with each other and create this sequence by the end of the month is greatly appreciated. Once I get your list, and after the proper approval, it will be stored on ODA's Homepage for standardized use throughout the District, making the project closeout procedure more efficient. These lists along with other information and Standard Operating Procedures (SOPs) will also be posted in ODA's Homepage.

Special thanks to Mr. Larum and Mr. Byrd for their assistance, help and timely interventions. Also I must recognize Pam and Karen's help in guiding me through these unfamiliar processes and to Steve for providing guidance.

Texas Department of Transportation

MEMORANDUM

TO: District Engineers

DATE: February 18, 2003

FROM: Amadeo Saenz, Jr., P.E.

SUBJECT: Project Environmental Requirements and District Environmental Quality Coordinator (DEQC)

In keeping with the Texas Department of Transportation's vision, this department and the contracting community must continue to be proactive and thorough as we design, construct and maintain transportation facilities to preserve and enhance the environment and ensure compliance with federal and state regulations. To further this effort, we are implementing the following requirements for construction and maintenance projects in the design and construction or work phase.

For the purposes of this memorandum, the term "construction contracts" include major maintenance projects (rehabilitation work similar in nature to a construction project) and building facilities work that have significant soil disturbing activities.

PS&E REQUIREMENTS

(Construction Contracts)

Reference my previous memorandums on Locating Temporary Material Supply Plants on the Right of Way and specifically Mitigation Requirements and Project Specific Locations, both dated April 15, 2002, in regard to environmental requirements. In addition to the PS&E requirements addressed previously, Environmental Permits, Issues, and Commitments (EPIC) sheets will now be required to be included in the PS&E. Late changes to commitments that affect contractor work requirements are to be included in the PS&E by an addendum. Include everything from conditional requirements from resource agencies to environmental commitments made to landowners and other entities (e.g. tree preservation) on the EPIC sheets. As stated in previous memorandums, for EPICs that affect contractor work requirements, further detail contractor obligations in the plans. Changes in commitments after letting will require either a written notice to the contractor (e.g. for identifying a restricted area) or a change order for added or reduced work.

CONSTRUCTION INSPECTIONS FOR SW3P AND OTHER ENVIRONMENTAL REQUIREMENTS

(Construction Contracts)

Effective immediately for all construction contracts, a designated project person responsible for environmental requirements is now required. Identify a contractor responsible person (CRPe) and department responsible person (DRPe) for implementing and reviewing requirements for ongoing projects and before work begins for upcoming projects. Under direction of the engineer, the DRPe will be responsible for ensuring the environmental requirements are being met. The CRPe will be the contact for the contractor on these issues. In addition, department staff will now be required to provide an opportunity to the contractor for joint inspections.

DISTRICT RESPONSIBLE PERSON FOR ENVIRONMENTAL QUALITY

(All Projects)

Effective immediately, each district is to name a district environmental quality coordinator (DEQC). The DEQC will be required to perform on right of way field and office record reviews on construction and maintenance projects. The assignment will be at the district engineer's discretion to an individual knowledgeable in the applicable areas of design, construction and maintenance. The attached Environmental Checklist, designed for project review, is to be used for review purposes. The checklist includes the minimum criteria to be reviewed. Districts may

modify the form to add other requirements specific to their area or projects. Review frequency and other requirements follow.

Projects with Permits, Formal Consultation, or Other Mitigation Requirements

Perform at least one review a year per project. Report findings to the area or project engineer and send a copy to the appropriate district directors.

Other Construction Projects

Perform at least one inspection every six months on a randomly selected project for each area office. Projects with permits, etc. as stated above, may be used to meet the frequency requirements for other construction projects.

This review is primarily to address compliance with storm water permit requirements, ensure compliance with other environmental regulations and to increase uniformity in the required documentation used to demonstrate compliance with environmental regulations and requirements. Report findings to the area or project engineer and copy the district director of construction.

Other Maintenance Projects

Perform at least one inspection every six months for a project, for contract, state force, or utility work, for a maintenance section in each area office. Develop a checklist specific to your maintenance operations and environmental issues.

This review is primarily to address compliance with storm water permit requirements, ensure compliance with other environmental regulations and to increase uniformity in the required documentation used to demonstrate compliance with environmental regulations and requirements. Report all findings to the maintenance supervisor and area engineer and copy the district director of maintenance.

INITIAL REVIEWS FOR AVOIDANCE, MITIGATION, OR PERMIT CONDITIONS

Each district is to review every ongoing construction project regarding formal consultations or US Army Corps of Engineers permits to ensure that any avoidance, mitigation or permit conditions are being met. Any district staff may be utilized to perform these reviews. The reviews are to be completed before the end of April 2003. Report the findings to the appropriate area engineer and district directors. Any corrective action needed is to be taken immediately.

These requirements will be included in the appropriate department manuals in the next updates. Your support is appreciated.

Attachment

cc: Thomas R. Bohuslav, P.E. Director, Construction Division
Ken Bohuslav, P.E. Director, Design Division
Dianna F. Noble, P.E. Director, Environmental Affairs Division
Mary Lou Ralls, P.E., Director, Bridge Division
Zane L. Webb, P.E., Director, Maintenance Division

ENVIRONMENTAL COMMITMENT CHECKLIST

For Construction, Maintenance and Facilities Projects

PROJECT:		DATE:
CSJ:		DEQC:
HIGHWAY:		Name

Storm Water Pollution Prevention

A. Required Information and Documentation

1. Does the construction site have a Storm Water Permit? Yes ☐ No ☐* N/A ☐
2. Is a notice posted in a publicly accessible location near where construction is actively underway (and moved as necessary)? Yes ☐ No ☐* N/A ☐
3. Does the notice contain the following information:
   a. The permit number or a copy of the NOI? Yes ☐ No ☐* N/A ☐
   b. The name and telephone number of a local contact person? Yes ☐ No ☐* N/A ☐
   c. A brief description of the project? Yes ☐ No ☐* N/A ☐

d. Location of SW3P (Job site or other location).	Yes ☐	No ☐*	
4. Is there a copy of the Construction General Permit in the SW3P? (a copy of the Federal Register is sufficient)	Yes ☐	No ☐*	N/A ☐
5. Is there a copy of a Delegation of Authority Letter authorizing the inspector to sign inspection reports in the SW3P file?	Yes ☐	No ☐*	N/A ☐
6. Is the SW3P retained on-site at the facility that generates the storm water? (If no, where is it located _____)?	Yes ☐	No ☐*	N/A ☐
7. Is the SW3P updated and documented in the plans as necessary to remain consistent with any changes in design, construction, operation, or maintenance applicable to protecting surface water resources in sediment and erosion site plans or site permits, or storm water management site plans or site permits approved by State, Tribal or Local Officials for which the permittee receives notice?	Yes ☐	No ☐*	N/A ☐
8. Is the description of construction and waste materials expected to be stored on-site updated?	Yes ☐	No ☐*	N/A ☐
9. Are the following records maintained and available for inspection, or included in the SW3P?			
a. Dates when major grading activities occur?	Yes ☐	No ☐*	N/A ☐
b. Dates when construction activities temporarily or permanently cease on a portion of the site?	Yes ☐	No ☐*	N/A ☐
c. Dates when stabilization measures are initiated?	Yes ☐	No ☐*	N/A ☐
10. Did stabilization occur within 14 days at locations where soil disturbing activities have ceased or will cease for at least 21 days or were temporary measures installed?	Yes ☐	No ☐*	N/A ☐

General Conditions

1. Are Best Management Practices (BMPs) being utilized?	Yes ☐	No ☐*	N/A ☐

2. Are silt fences, buffer strips, or equivalent sediment controls at a minimum used for all side-slope and down-slope boundaries of the construction area? Yes ☐ No ☐* N/A ☐

B. Controls & Measures

1. Have erosion and sediment controls been designed to retain sediment on-site to the extent practical during the construction phase? Yes ☐ No ☐* N/A ☐

2. Were control measures, in accordance with manufacturer specifications and good engineering practices:

   a. Properly selected? Yes ☐ No ☐* N/A ☐

   b. Properly installed? Yes ☐ No ☐* N/A ☐

   c. Properly maintained? Yes ☐ No ☐* N/A ☐

   d. In effective operating conditions? Yes ☐ No ☐* N/A ☐

3. Are controls in place to minimize:

   a. Dust generation? Yes ☐ No ☐* N/A ☐

   b. Off-site vehicle tracking of sediments? Yes ☐ No ☐* N/A ☐

4. Are off-site accumulations of sediment removed at a frequency sufficient to minimize off-site impacts? (sediment near off-site inlets, etc) Yes ☐ No ☐* N/A ☐

5. Is sediment removed from the sediment traps or sediment ponds when design capacity is reduced by 50%? Yes ☐ No ☐* N/A ☐

6. Are litter, construction debris, and construction chemicals exposed to storm water prevented from becoming a pollutant source from storm water discharges? (e.g., screening outfalls, picked up daily) Yes ☐ No ☐* N/A ☐

7. Are solid materials including building materials being discharged?
(except those authorized by a permit issued under section 404 of the CWA) Yes ☐* No ☐ N/A ☐

8. Were velocity dissipation devices (i.e. rock filter dams, holding ponds, etc) placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to the water course? Yes ☐ No ☐* N/A ☐

C. Inspections

1. Were the inspections performed at least once every 14 calendar days and within
24 hours of the end of a 0.5 inch or more rain event (or once every 30 days in areas with less than an average 20 inches of rainfall per year)?
(Note: some projects may require more frequent inspections, refer to the plans). Yes ☐ No ☐* N/A ☐

2. Did the inspector check the following:

   a. Disturbed areas of the construction site that have not been stabilized? Yes ☐ No ☐* N/A ☐

   b. Areas used for storage of materials that are exposed to precipitation? Yes ☐ No ☐* N/A ☐

   c. Structural control measures? Yes ☐ No ☐* N/A ☐

   d. Locations where vehicles enter or exit the site? Yes ☐ No ☐* N/A ☐

3. Based on the inspection, are the SW3P Sheet and SW3P Layouts modified within
7 calendar days following the inspection? Yes ☐ No ☐* N/A ☐

   a. Is it documented and available for inspection? Yes ☐ No ☐* N/A ☐

4. Based on the inspection, are controls and measures modified or added before the next anticipated storm event (or as soon as practicable)? Yes ☐ No ☐* N/A ☐

5. Did the inspection Summary Report include:

   a. The name of the inspector? Yes ☐ No ☐* N/A ☐

b. The date(s) of the inspection?	Yes ☐	No ☐*	N/A ☐
c. Measures/area inspected?	Yes ☐	No ☐*	N/A ☐
d. Actions needed/taken as a result of the inspection?	Yes ☐	No ☐*	N/A ☐
e. Signature of inspector with certification statement?	Yes ☐	No ☐*	N/A ☐
f. Inspector properly delegated in writing to EPA?	Yes ☐	No ☐*	N/A ☐

Water Resources Compliance

USAC Permits

1. US Army Corps of Engineers (USACE) Permits: Does the project have a USACE (Section 10 or Section 404) permit?	Yes ☐	No ☐	N/A ☐
a. If yes, is a copy of the permit kept onsite (in the form of Nationwide Permit text and/or a letter or other documents from the USACE)?	Yes ☐	No ☐*	N/A ☐
b. Are any Project Specific Locations, on or off Right-of-Way, that are directly related to the USACE permit addressed in the permit or Corps letters to the contractor (for off ROW PSLs)?	Yes ☐	No ☐*	N/A ☐
c. Has clearance been obtained for any changes in design or construction methods in the areas covered by the permit?	Yes ☐	No ☐*	N/A ☐
d. Does the project meet all conditions listed in the permit?	Yes ☐	No ☐	N/A ☐
2. Is a copy of the completed Section 401 Water Quality Certification Tier I checklist (or other specific Section 401 requirements) attached to the permit?	Yes ☐	No ☐*	N/A ☐

a. Does the project have the BMPs installed as designated in the Tier I checklist or as otherwise specified? Yes ☐ No ☐* N/A ☐

b. Are the BMPs working effectively? (If not, immediately bring the problem to the attention of the project engineer) Yes ☐ No ☐* N/A ☐

c. Are there wetlands on the project site? Yes ☐ No ☐ N/A ☐

d. Are wetlands that are required to be preserved by the USACE permit being effectively protected? Yes ☐ No ☐* N/A ☐

Other Water Requirements

1. Does the project require an Edwards Aquifer Protection Plan (for central Texas counties Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, & Williamson only) Yes ☐ No ☐ N/A ☐

   a. If yes, is a copy of the Water Abatement Plan kept on-site? Yes ☐ No ☐* N/A ☐

   b. Are all appropriate conditions affecting construction being met? Yes ☐ No ☐* N/A ☐

2. Does the project have a US Coast Guard Section 9 permit? Yes ☐ No ☐ N/A ☐

   a. If yes, is a copy of the permit kept onsite? Yes ☐ No ☐* N/A ☐

   b. Are all appropriate conditions affecting construction being met? Yes ☐ No ☐* N/A ☐

3. Does the Project fall under the requirement of the Texas Coastal Management Plan? Yes ☐ No ☐* N/A ☐

   a. If yes, are all appropriate conditions affecting construction being met? Yes ☐ No ☐* N/A ☐

Other Environmental Requirements

Vegetation Management

1. Are there any mitigation issues involving vegetation impacts?	Yes ☐	No ☐	N/A ☐
2. Is the ROW to be used for mitigation?	Yes ☐	No ☐	N/A ☐
3. Is there any vegetation that requires fencing, or other protection, to preserve it from damage or removal?	Yes ☐	No ☐	N/A ☐
4. Are there any vegetative management issues within the project?	Yes ☐	No ☐	N/A ☐
5. Has project been coordinated with district environmental staff before removal of trees/shrubs within proposed ROW?	Yes ☐	No ☐*	N/A ☐
6. Has project been coordinated with district environmental staff to salvage native plants in project area?	Yes ☐	No ☐*	N/A ☐
7. Invasive species addressed as required?	Yes ☐	No ☐*	N/A ☐
8. Is revegetation/landscaping with native grasses and shrubs in accordance with project plans?	Yes ☐	No ☐*	N/A ☐
9. Are recycled plant trimmings to be used as mulch and to reduce runoff?	Yes ☐	No ☐*	N/A ☐
10. Is any stockpiled organic layer of soil from existing wetlands to be used on mitigation site?	Yes ☐	No ☐*	N/A ☐
11. Are the wetlands to be preserved already delineated?	Yes ☐	No ☐*	N/A ☐

Noise

1. Are there any noise level concerns within the project?	Yes ☐	No ☐	N/A ☐
2. Minimized construction noise:			

a. In residential areas Yes ☐ No ☐* N/A ☐

b. In sensitive receptors in area. Yes ☐ No ☐* N/A ☐

Historical and Archeological

1. Are there any historical or archeological issues in the PS&E? Yes ☐ No ☐ N/A ☐
2. Archeological survey to be conducted during/after ROW purchase. Parcel #_____ Yes ☐ No ☐ N/A ☐
3. Are there any archeological surveys needed to be done on outstanding parcels? Parcel #_____. Yes ☐ No ☐ N/A ☐
4. Are there any archeological sites that must be avoided until mitigation is complete and THC concurs no additional work is required prior to construction? Yes ☐ No ☐ N/A ☐
5. Are there any designated avoidance areas? Yes ☐ No ☐ N/A ☐
6. If yes, are they delineated such that they are not disturbed? (If disturbed, notify project engineer immediately) Yes ☐ No ☐* N/A ☐
7. Are there any historical elements to be salvaged or protected? (i.e. bridge plaques or historic bridge rail) Yes ☐ No ☐ N/A ☐
8. If any archeological evidence were discovered during the course of construction (bones, burnt rock, flint, pottery), were the TxDOT Emergency Discovery Guidelines followed? Yes ☐ No ☐ N/A ☐

Change Orders

1. Has the district environmental staff reviewed all draft change orders to determine whether an environmental analysis and/or resource agency coordination is necessary? Yes ☐ No ☐* N/A ☐
2. If any environmental analyses are required, has it received clearance? Yes ☐ No ☐* N/A ☐

Federal Listed and Proposed Threatened and Endangered Species,

Critical Habitat, State Listed Species, and Candidate Species

1.	Are there any listed species, etc., within project limits?	Yes ☐*	No ☐	N/A ☐
2.	Is there designated critical habitat in the project area?	Yes ☐*	No ☐	N/A ☐
3.	Was there consultation with the U. S. Fish and Wildlife Service and/or National Marine Fisheries Service for the project?	Yes ☐	No ☐	N/A ☐
4.	If yes to 1, 2, or 3, are there any commitments or requirements for on-site mitigation for endangered species?	Yes ☐	No ☐	N/A ☐
	a. Are they being done properly?	Yes ☐	No ☐	N/A ☐
5.	Are there any species/wildlife commitments for scheduling the construction activities for the project?	Yes ☐	No ☐	N/A ☐
	a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐
6.	Are there any requirements for species monitoring during construction?	Yes ☐	No ☐	N/A ☐
	a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐
7.	Are there any commitments for state listed species within the limits of the project?	Yes ☐	No ☐	N/A ☐
8.	Does the inspector have a current list of species on the “watch list” for the project?	Yes ☐	No ☐*	N/A ☐
9.	Are pictures and descriptions that help identify these species available on the project?	Yes ☐	No ☐*	N/A ☐
10.	Have any of the species been spotted on the project site during construction?	Yes ☐*	No ☐	N/A ☐
11.	Do TxDOT and Contractor staff know what they do if they see a listed species on-site?	Yes ☐	No ☐	N/A ☐

Essential Fish Habitat

1. Is there any essential fish habitat within project limits?	Yes ☐*	No ☐	N/A ☐
2. Is there designated essential fish habitat in the project area?	Yes ☐*	No ☐	N/A ☐
3. Was there consultation with the U. S. Fish and Wildlife Service and/or National Marine Fisheries Service for the project?	Yes ☐	No ☐	N/A ☐
4. If yes to 1, 2, or 3, are there any commitments or requirements for on-site mitigation for essential fish habitat?	Yes ☐	No ☐	N/A ☐
a. Are they being done properly?	Yes ☐	No ☐	N/A ☐
5. Are there any essential fish habitat commitments for scheduling the construction activities for the project?	Yes ☐	No ☐	N/A ☐
a. If yes, are they complied with?	Yes ☐	No ☐	N/A ☐

Natural Habitat Commitments

1. Are there any commitments for natural habitat mitigation in the right of way other than vegetation management issues?	Yes ☐	No ☐	N/A ☐
2. Are the mitigation commitments stated in the project plans?	Yes ☐	No ☐	N/A ☐

Migratory Birds

1. Are there any concerns that migratory birds are nesting within project limits?	Yes ☐*	No ☐	N/A ☐
2. Have migratory birds or nests been noticed on the project in such a situation that a 'take' of the birds might occur?	Yes ☐*	No ☐	N/A ☐
3. If a migratory bird ‘take’ might occur, has coordination with the resource agencies cleared the action?	Yes ☐	No ☐	N/A ☐

Hazardous Materials

1. Are there any hazardous materials on the site or are there plans to use any hazardous materials during construction?	Yes ☐*	No ☐	N/A ☐
2. Is there evidence of hazardous materials not identified in the PS&E? (for example underground storage tanks, containers, spills)	Yes ☐*	No ☐	N/A ☐

a. If yes, immediately contact the Area Engineer.

Texas Department of Transportation

MEMORANDUM

TO: District Engineers

DATE: March 5, 2003
FROM: Thomas R. Bohuslav, P.E. □
SUBJECT: District Sourcing Letter in SiteManager

The purpose of this memo is to address changes to the SiteManager District Sourcing Letter. Members of the contracting community have stated that the SiteManager Source Letter is excessively lengthy and redundant. Consequently, providing contract sourcing information requires more time and effort than it did under the Contract Information Segment (CIS). These changes are being made to reduce the efforts needed by contractor and department staff.

The SiteManager District Sourcing Letter will be modified to closely resemble the CIS.36 report. Modifications to the Source Letter will be submitted to the Information Systems Division for new custom report development.

If your district chooses to send the existing SiteManager District Sourcing Letter to contractors until the custom reports are developed, we would like to offer the following suggestions for its use:

- When multiple occurrences of the same bid item (i.e. 10 Drill Shaft Items) appear on the source letter, the contractor can indicate the source for the first bid item listed and use ditto marks to indicate duplication, or just list all items.

- If a material code has the same producer throughout all bid items on a contract, the contractor could list the producer the first time it appears and make note of the duplication throughout the contract in the report margin.

- If a material is not going to be used throughout the project (i.e. Fly Ash), the contractor can indicate NOT USED the first time it appears. They could then make a notation in the margin that the material will not be used on the entire contract. This will provide TxDOT staff the opportunity to zero out contract material conversion factors which will remove unused materials from the contract and reduce future material discrepancies.

Notification will be sent to the districts when the new version of the District Sourcing Letter is available.

cc: District Directors of Construction
bc: Elizabeth Boswell, P.E., Construction Division
Ken Fults, P.E., Construction Division

David Debo, Construction Division

APPENDIX C

EARLY DRAFT, CONSTRUCTION CONTRACT ADMINISTRATION STANDARD OPERATING PROCEDURES, AND BEST PRACTICES (SOPBP) FOR THE ODESSA DISTRICT

Construction Contract Administrative Standard Operation Procedures and Best Practices (SOPBP) for the Odessa District

○ Background Information

Purpose

The purpose of these District SOPBPs is to provide the Decision Makers, Records Keepers and other users with a quick guide to help comply with all the important and mandatory procedures that insure the project's integrity, safeguard the State's interests and expedite paper/data work. It is assumed that the user has a working knowledge of the overall Construction Contract Administration procedures. References will be made throughout these SOPBPs so that the user may refer to the original texts for details. These SOPBPs besides brief explicit guidelines have links to tables, checklists and flow diagrams specifically designed to facilitate compliance and expedite the required paper/data work. When using a browser to view this document make use of the document map view to go directly to your topic of interest.

Other Expected Benefits

Extensive use of SiteManager (SM)

Generate, check and/or compile data in a

- Timely
- Complete
- Systematic manner

Reduction in errors and oversights

- Better and faster e-communication on record
- Higher security

Extensive use of T drive for non-SM documentation

- Use of available templates and form
- Documentation storage and chronological records
- Project's history Use of GroupWise (GW) as the prime non-SiteManager communication tool Use of a standard master checklist throughout the project's life with its own checklist stored in the T Drive under its CSJ
- Significant paper use reduction

CHAPTER 7. REVIEW AND APPROVAL OF CHANGE ORDERS

Introduction

"It is the intent of TxDOT to amend whenever a significant change in character of work occurs. The engineer has the right to make necessary changes in quantities or alterations in the work, in writing and at any time, to satisfactorily complete the project. As agreed in the original contract, the contractor shall perform the work as increased, decreased, or altered. If changes or alterations significantly change the character of the work under the contract, a Change Order (CO) must be approved before beginning the changed or altered work. (Standard Specifications, Item 4.2(1993) and Construction Contract, 7.1)"

Change Order Review Procedure

Steps to follow while reviewing a CO at DCO, regardless of the approval level.
In the Odessa District, the review/approval process follows the established hierarchy criterion. i.e.

- From Area Engineer (AE)
- to District Construction Engineer (DCE)
- to District Engineer (DE)
- to Construction Director (CST), or
- Assistant Executive Director, Engineering Operations (AED EO.)

If a CO needs to be expedited, please make it known to the DCO, do not override approvals in SM

AO generates CO draft in SiteManager (SM) after checking low bid averages for district and state, negotiating the price and obtaining a price breakdown from the contractor. Notifies DCO via GW. DCO reviews draft for the following:

- Federal, State overview, etc.
- Advanced Funding Agreement (AFA) requires a completed form CO6-02 (3rd. party funding tab), if the CO requires some or all funds from a third party
- A forced account CO must have a completed form CO6-02 (contract items page 1 and 2)
- Contractor's name
- CSJ
- Transmittal memo with additional information of CO for FHWA and/or Assistant Executive Director for Engineering Operations approval
  - Who prepared the plans
  - Reasons for change
  - Status of the work
  - Price justification for newly added items
- Review low bid averages for that item, District and Statewide
- Environmental clearance for added roadways
  - Review plans and identify changes

    - Review the explanation
    - Time extension
    - Previous purchase orders, consecutive order number
    - If present CO is entered correctly in SM

- Check to see if it is a major or minor item
- Review low bid averages for that item, District and Statewide
- Review line items and whether the change order is a pay quantity item
- If it should be TDLR reviewed
    - Pedestrian traffic
    - Over $50,000

- If it should be reviewed by Illumination and Traffic Control

    - DCE Review
    - Director of Operations Review
- Ascertain if the change order will alter the final design and if so, make a note to include these changes in the as built plans
- AE has contractor signs accepting the change order
- ARK accepts in SM in behalf of the contractor

Change Order Decision Tree and Flow Diagram

Approval levels

Time extension only done by CO in SM and approved by AE, as procedure below

Under $50,000 and no change in limits

- AE generates CO draft
- AO send to DCO for review
- DCO approves the CO draft
- AE approves in SM
- AO updates PS&E
- AO generates two signed copies
    - CO CST Austin
    - CO contractor

Between $50,000 and $300,000 and no change in limits

- AE generates CO draft
- AO send to DCO for review

- DCO approves the CO draft
- AO updates PS&E
- DE approves and signs in SM
- DE generates two signed copies
  - CO CST Austin
  - CO contractor

Over $300,000 or change in project limits

- AE generates CO draft
- AO send to DCO for review
- DCO approves the CO draft
- AO updates PS&E
- DE requests approval in SM
- DE signs and request approval in SM
- CST Reviews
- TxDOT Administration (AED, EO) approves and signs in SM
- AED, EO generates two signed copies
  - CO CST Austin
  - CO Contractor

Supplemental Agreements. Agreement between the contractor and the State, approved by the Surety, done when a CO does not proceed.

CO Denial

If a change order is denied the originator and previous approvers will be notified by in-box message in SM

The CO originator must

- Change from pending to denied, this leaves the CO as unapproved and this is not acceptable in the Odessa District.

- Change from pending to draft, make the necessary changes and re submit

APPENDIX D

INTERIM GUIDELINES

CHAPTER 8. REVIEW AND APPROVAL OF MONTHLY PROGRESS ESTIMATES

Odessa District Policy

To generate and process monthly progress estimates and final estimates expediently in order to pay the contractor as soon as possible.

Payment General Procedure

"TxDOT processes a contractor payment with an estimate each month prior to final acceptance. TxDOT generates and approves the Monthly Progress Estimate in SiteManager in order to process this monthly payment. The estimate period is a calendar month.

TxDOT generates Monthly Progress Estimates regardless of whether the estimate produces a payment to the contractor. Item 8.5 of the Standard Specifications requires the Area Engineer to send the contractor a monthly statement of time charges. The Area Office transmits the estimate package for the Monthly Progress Estimate to the contractor that includes the Contract Time Statement."1

Introduction

The review and approval process for monthly progress estimates is paperless. The primary purpose is to establish the SOPBP for DCO to review and approve monthly progress estimates in SM. A secondary purpose is that AOs know exactly how their estimates are going to be reviewed and approved in SM. Thus making it easier to generate and check these estimates in a timely and accurate manner. Not only are these SOPBPs essential to comply with the aforementioned TxDOT general policy, it is also necessary to comply with the District's specific policy.

Monthly or cyclical progress estimate.

The cyclical or monthly progress estimates are the only estimates generated by the Area Offices. The generator must have a Contractor Payment Approval Levels in SM. In the Odessa District final and supplemental estimates are generated by the DCO. Only the estimate generator can override or resolve the discrepancies in the estimate. Following are the SOPBPs used by the District Auditor to review each and every progress estimate before accepting it. Area Bookkeepers are expected to follow the same procedure before sending the monthly progress estimate for review. This should induce a better and faster process.

> "The estimate generation process uses both installed quantities and time charges from Daily Work Reports and Diaries to calculate payments. District users should review

source data for an estimate before generating an estimate. Several standard and custom reports are available for reviewing installed quantities and time charges before generating an estimate. District users should correct quantity and time charge errors based on this review before generating an estimate. " [1]

To Review the Estimate.

Installed quantities, time charges and other parameters are found in standard and custom SM reports that can be used to identify discrepancies, if any. AO should check whichever report is appropriate, if there are discrepancies resolve them before sending the estimate for review to DCO. E.g.

To review installed quantities and time charges the following are used:

- Contractor's Estimate Package. Displays most contractor's payments and time charge data. Most conflicts arise when the contractor does not agree with the estimate package.
- Unpaid Installed Quantity Summary Report. Displays items of installed quantities that have not been included in that estimate
- Item Work Report. Displays history of installed quantities for that item
- Item Quantity Report. Displays payments data for all contract line items
- Unauthorized Daily Work Reports. Displays Daily Work Reports that have not bee authorized in the Diary.
- Contract Time Statements. Displays time charges for a selected period
- Milestones Time Statement. Displays time charges for a selected milestone

To determine the discrepancy use:

- Over/under Run Report. Displays over and under run percentages for all contract items along with indicators

- Automatic Estimate Discrepancies Report. Displays discrepancies as specified in contract discrepancy options

- Review change orders. Displays previous COs

- Insufficient Samples. Material's discrepancies/insufficient samples to meet Contract Sampling and Testing Requirements based on installed quantities.

- Checklist Event Completion Dates Missed. Tracks contract's schedule through milestone dates. Not presently active in SM

- Change Order History. Has all previous CO, chronology and continuity

- Paying progress estimates. As stated above the estimate generator is the only one that can override or resolve discrepancies. The estimate generator can do one of three things.

- Ignore the discrepancies. This is not acceptable in the Odessa District.

- Override the discrepancies adding an explanation or remark. The District policy is that if the estimate generator is forced to override, the discrepancies have to be resolved before the next estimate.

- Resolve the discrepancies - The user may resolve the discrepancy by creating the appropriate record(s) and regenerating the estimate.

The District SOPBP is to resolve the discrepancy and regenerate the estimate, and recheck. If the procedure has to be expedited the generator can override with an explanation or remark. Once the work peak has diminished, the generator goes back and resolves the discrepancies before the next estimate. (SM does not recalculate discrepancies; a new estimate has to be regenerated with each iteration.)

Resolving a progress estimate discrepancy at the time the estimate is generated or shortly after is an industry best practice, and does not compound the problem with time. Final estimates cannot be approved with unresolved discrepancies nor with unapproved change orders. These anomalies have to be resolved sometime, it is better to do it ASAP when there is time and events a fresh in memory.

SM notifies the Project Manager through the in-box that an estimate has been generated and will also receive an under/over run report if any pay plan quantity item. It is District policy for the generator to send a GroupWise (GW) communication of this event along with any other pertinent information or comments. Approval at District Level: When the AO sends the monthly progress report for review; the District Project Auditor (DPA) goes through the aforementioned procedure. If it has no discrepancies, or if there is an understanding between the AO and the DPA on how these discrepancies are going to be resolved before the next monthly estimate, the monthly estimate can be overridden and approved.

Approval Hierarchy.

In the Odessa District the default approval levels are:

Bookkeeper 2
- Eliminate PM/C Inspector??????????
- Area Engineer/Project Manager
- District Construction Office staff
- District Construction Engineer

However, before pre-con meeting a specific hierarchy up to DCO staff should be GW for each project by the AE and entered into SM by the DCO staff.

Estimate Rejection.

It is District policy to eliminate estimate rejections from this District, bringing forth a new measure of productivity.

Corrective Progress Estimate

TxDOT makes payment for installed quantities not included in the previous Progress Estimate with the Corrective Progress Estimate.

CHAPTER 9. REVIEW AND APPROVAL OF INTERIM AND FINAL AUDITS AND FINAL ESTIMATE

Review and Approval of Interim Audits

Interim audits are audits conducted somewhere between the start and the final audit. They are also called cyclical or random audits. These interim audits are very similar to the final audit, except that the final papers and reports are not incorporated. An interim audit can be conducted by following the checklist without using final, or following the procedure in 9.2 below, omitting the last documents. Interim or random audits are common and AO should expect an interim audit by the District Project Auditor at least once per project. The District policy is to encourage the bookkeepers to conduct a self audit at the same time they are generating the monthly progress report. This has advantages. The AO can conduct its first monthly self audit with the first monthly progress estimate. The Master Checklist Hyperlink can be used. Set the initiating, cyclical and final column to initiating. This will show all documents that must be in the Project Final Document Box (PFDB) in that column. As well as what to look for in SM, see 8.0 above. The second month set the list to cyclical and it will show the documents that must be collected cyclically through out the life of the project. Similarly setting the list to final for the last revision.

Review and Approval of Final Audits

TxDOT policy is to conduct a final audit on each and every contract before final payment is made. The purpose of the final audit is to guarantee that the contractor has met all contracted obligations and that the AO, the DCO and the DE have complied with all engineering and administrative requirements. The AO has 30 days from contract acceptance to turn all documentation over to DCO. DCO has 28 days to conduct the final audit and generate the final estimate(s). (see 9.3 below). District goals include decreasing these times to 23 and 21 days respectively. Which is easily attainable by following these SOPBPs

Final audits will be much easier if the interim audits have been conducted cyclically, by the auditor or the bookkeeper as a self checking mechanisms.

The District Project Auditor conducts the final project audit before processing the final estimate and shortly after the retainage progress estimate. The final audit consists of examining every source of the project. I.e.

- All information in SM
- All non-SM electronic data, T Drive
- All non electronic documentation, usually contained in the Project's Final Papers Box
- SW3P related matters will be address in Chapter 10.

The use of the master checklist is appropriate for this audit The Area Office prepares and sends the Project's Final Documents to the DO. This consists of all archived records not

entered in SM or the T Drive. The AO enter the date that these papers were sent to the DCO in Key Dates, under "Records Transferred to District".

The auditor can determine what documents should be in the Final Document Box by filtering the appropriate column is the check list. By choosing SM all documents for site manager will be displayed and finally the documents stored in the T Drive.

Auditing SiteManager Contract Data with Custom and Standard Reports

- Over under custom report
  - +/- 25% Tolerance on major items
  - +/- 5% Tolerance on pay plan quantity (PPQ) items
- Contract line items custom report
  - Check for items that will need to be paid in the final estimate
  - Mobilization
  - Barricades signs and traffic handling
  - Preparation of Right of Way (ROW)
  - Adjust material on hand (MOH) to zero.
  - Check payment for force account items.
  - Check items with no payment and that the reasons the items were not used are documented.
- Final time statement custom report
  - Check total number of adjusted, charged, and credited days.
- Unauthorized daily work custom report
  - Check to determine if any existing Daily Work Reports (DWR's) should be authorized before generating the Final Estimate.
- Unapproved change order aging standard report
  - Check for change orders in "Draft" or "Pending" status. All change orders must be in either "Approved" or "Denied"
- Dispute/claim summary standard report
  - Check for pending disputes or claims. All disputes or claims must be in "Resolved" status in order to change the contract status from "Active" to "Complete" after approval of the Final Estimate.
- Sampling checklist standard report
  - Check to review required samples and tests and completed samples and tests.

- Failing samples standard report
    - For non-exempt or FLOA federal-aid projects only. This report can be used to prepare the Material Certification Letter required for these projects

Districts review contract records and view SiteManager screens to conduct the final audit. Districts review contract records and SiteManager screens to assure that all records are on file to assure compliance with contract administration requirements before processing the Final Estimate.

Pay records

- Check in the contract records for supporting documentation required to support measurement and payment for some items such as haul tickets, drawings and measurements, specialized forms, etc
- Check in the contract records for truck measurements and distributor calibrations required for seal coat items
- Check in the contract records for Form 1914, Request for Payment for Materials on Hand Summary Page and Form 1915, Request for Payment of Material on Hand if payment was made for Material on Hand (MOH)
- Check in the contract records for supporting documentation for Contract Adjustments and Line Item Adjustments
- Spot check installed quantity entries for selected items using the Item Work Report.

Change orders

- Compare summary cost data displayed in Force Accounts / Summary Tab to payment made for force account items that involve full cost accounting to the pay quantity displayed for these items in the Contract Line Items Report.
- Check supporting invoices for force account work reimbursed by invoice in the contract records and supporting invoices for materials placed

Materials Test Records

- For non-exempt, or FLOA, federal-aid projects only, check for the Material Certification Letter and the attached Failing Samples Report listing materials that were accepted with failing tests
- Check in the contract records for manufacturer's certifications required by the specifications

Civil Rights Requirements

Requirements for Federal aid programs only

- Check the contract records to assure that weekly payrolls are on file for the prime contractor and all subcontractors
- Check the contract records to assure that a signed 'Statement of Compliance WH-347 accompanies each weekly payroll
- Check the contract records for all required Labor Interviews and view Checklist Event Dates to determine that all dates were input for the date "LABOR INTERVIEW".
- Check the contract records for all required Annual Project Inspections and view Checklist Event Dates to determine if all dates were input for the date "ANNUAL CONTRACT COMPL INSP."

Requirements for contracts with DBE goals only

- If the project DBE/SBE goal has not been met, CSTB must give final clearance prior to the districts processing the final estimate. This new procedure is being implemented to expedite the final clearance.
- Final Estimate Processing for DBE/SBE Requirements
- Upon project completion, obtain from the contractor
  - SMS.4904, DBE or HUB Final Report form (Federal Projects), or
  - SMS.4908, SBE Final Report form (State Projects).

Upon receipt of this form, make sure it is:

- Signed and notarized by the prime contractor
- Verify that the amounts reported on the final report form coincide with the amounts already entered on the Subcontracts window.

Race neutral information that was previously submitted by the contractor shall also be included on the final report form. Once the amount information has been verified:

- Determine if the prime contractor met the DBE/SBE contract goal by referring to the Subcontracts window

Note: This screen will show the DBE/SBE goal and the DBE/SBE total progress to date

- Record the day that the DBE/SBE Final Report was received in the Checklist Event Dates
- If the amounts reported on the final report do not match the amounts on SMS:
  - Contact the contractor in order to reconcile to the amounts reported
  - Make adjustments to Subcontracts as needed

- If it is determined that the prime contractor has met the DBE/SBE contract goal
  - Record the contract as being cleared, by entering the date the project was cleared in the Checklist Event Dates
- If it is determined that the prime contractor has not met the DBE/SBE contract goal:
  - Record the date that the DBE/SBE Final Report was received in the Checklist Event Dates
  - Mail or fax to CSTB the DBE/SBE Final Report and any supporting good faith effort documentation

Note: Further processing of the final estimate shall be held until cleared by CSTB.

General Contract Administration Requirements

- Check in the District Office file for all required completed Form 599, Traffic Control Devices Inspection Report (View Checklist Event Dates to determine if all report dates for both day and night inspections were input for the Checklist Event Dates "BARR INSP - DAY" and "BARR INSP - NIGHT"

- For contracts with NPDES permits only, check the contract records for the Notice of Intent (3510-9) and view Key Dates to determine if the submission date has been input in the date "NOTICE OF INTENT SUBMISSION"

- For contracts with NPDES permits only, check the contract records for the Notice of Termination (3510-7) and view Key Dates to determine if the submission date has been input in the date "NOTICE OF TERMINATION SUBMISSION"

- For contracts with NPDES permits only, check the contract records for Storm Water Pollution Prevention Plan (SW3P) inspection reports.

- For federal-aid contracts + $ 1,000,000.00 only, check the contract records to assure that Form FHWA-47 'STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS' has been submitted by the contractor and view Checklist Event Dates to determine if the submission date has been input in the date "FORM FHWA 47"

- For exempt, or SLOA, federal-aid projects only, the District Construction Office prepares FHWA1446 'FINAL INSPECTION OF FEDERAL-AID PROJECT' and input the submission date in Key Dates for the date "FORM 1446-C SUBMISSION

- Check for submission of Final Plans by the Area Office and view Key Dates to determine if the submission date has been input in the date "FINAL PLANS SUBMISSION."

Review and Approval of Final Estimates

Contract Acceptance

The AE sends the DCO a GW notification of contract completion. The Director of Construction inspects the project within ten days of notification. If the contract is satisfactorily completed the DCO sends a letter or preferably an electronic communication of acceptance and releases the contractor from further maintenance. The letter/e-communication also urges the contractor to submit ASAP forms 4904 and 4908 so that his payment can be expedited.

- The e-mail is filed on the T Drive under its CSJ number and appropriate description.
- DCO also enter the date of the acceptance in SM in critical dates under accepted date.
- With the same acceptance date the District Construction Office changes the retainage setting in SM for the contract to 2%.

Retainage Progress Estimate

- Retainage Progress Estimate generated by DCO on the same date as contract acceptance
- DCO assures that total payment for the Material on Hand (MOH) payment item is adjusted to zero (0.00) in this Retainage Progress Estimate.
- Releases previous retainage withheld in excess of 2%
- The Retainage Progress Estimate may include payment for outstanding placed quantities.
- The Retainage Progress Estimate may not include the outstanding balance for the items
  - Mobilization and Barricades,
  - Signs and Traffic Handling.

Semifinal Progress Estimate

DCO may generate a semifinal progress estimate to make payments on still outstanding items after the retainage progress estimate and before the final estimate. The Final Estimate may include:

- Outstanding quantities not included in previous progress estimates
- Mobilization (usually remaining 10%)
- Balance on Barricades, Signs and Traffic Handling
- Zero out Materials on Hand, if for some reason it was not don in the retainage progress estimate

APPENDIX E

EXTERNAL FILES DISCUSSED IN THIS RECORD OF STUDY

1. Master Checklist, see Masterchecklist.xls

2. Decision Tree and Flow Diagram, see DecisionTree.xls

3. Power Point presentation, see eDocument.pps

VITA

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EDUCATION	Texas A&M University	B.S., Industrial Engineering, 1973 M.S, Civil Engineering, 1974 D. Eng., Civil Engineering, Dec 2003
PROFESSIONAL CERTIFICATION	Professional Engineer	2001
EXPERIENCE (1987-1999)	Independent Consultant, Tecnologia Dirigida, C.A.	Specializing in comestible production facilities, sanitary procedures, and environmental compliance
1987-1989	Cheese flavor manufacturing Procker, C.A.	Designed, built, and operated cheese flavoring factory.
1979-1986	Kraft Foods, Inc. Latin American Division Engineering Manager	Designed, retooled and developed plants and processes for the production of food products; Oversight of Oscar Mayer production and procurement operations; research and development
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