

APPENDIX A
QUALITY CONTROL PLAN

FINAL QUALITY CONTROL PLAN

**REMEDIAL ACTION AT IR SITE 25
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

**Contract N62473-10-D-0808
Contract Task Order 0003**

Prepared for:

BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92132

Prepared by:

Innovative Technical Solutions, Inc.
2730 Shadelands Drive
Walnut Creek, California 94598

January 2012

ITSI Project No. 07204.0003

TABLE OF CONTENTS

1.0	Introduction.....	1
2.0	Quality Control Organization	2
2.1	Coordination and Mutual Understanding Meeting	3
3.0	Submittal Procedures	5
4.0	Definable Features of Work.....	7
4.1	DFOW 1: Biological Studies and Oversight.....	7
4.2	DFOW 2: Sediment Sampling (Pre-Construction)	7
4.3	DFOW 3: Salvage Pickleweed and Salt Grass (Pre-Construction)	7
4.4	DFOW 4: Installation of Temporary Dams (Pre-Construction)	8
4.5	DFOW 5: Water Diversion (Pre-Construction)	8
4.6	DFOW 6: Mobilization and Site Preparation.....	8
4.7	DFOW 7: Clearing and Grubbing.....	9
4.8	DFOW 8: Land Surveying	9
4.9	DFOW 9: Excavation of Sediment	9
4.10	DFOW 10: Sediment Stockpiling	10
4.11	DFOW 11: Confirmation Sampling.....	10
4.12	DFOW 12: Loading and Transport of Contaminated Soil.....	10
4.13	DFOW 13: Decontamination of Equipment	10
4.14	DFOW 14: Site Restoration	11
4.15	DFOW 15: Biological Restoration.....	11
4.16	DFOW 16: Demobilization.....	11
5.0	Inspections and Testing	12
5.1	Equipment Inspections.....	12
5.2	Geotechnical Tests	12
5.2.1	Moisture-Density Relationships.....	12
5.2.2	Compaction Testing	13
6.0	Quality Control System	14
6.1	Phase 1 – Preparatory Phase	14
6.2	Phase 2 – Initial Phase	15
6.3	Phase 3 – Follow-Up Phase	16
7.0	Tracking Construction Deficiencies	18
7.1	Nonconformance.....	18
7.2	Corrective and Preventive Action.....	19
8.0	Inspections	20
8.1	Punch-List Inspection	20
8.2	Pre-Final Inspection	20
8.3	Final Inspection.....	20
9.0	Documentation.....	21

9.1 QC Phases 21
9.2 QC Meeting Minutes..... 21
9.3 Quality Control Validation 22
9.4 Daily Reports 22
9.5 Documentation of Deficiencies..... 23
9.6 As-Builts 23
10.0 References..... 24

*

ATTACHMENTS

- Attachment 1 Designation Letters and Quality Control Training Certificates
- Attachment 2 Submittal Register
- Attachment 3 QC Forms

ACRONYMS AND ABBREVIATIONS

AB	aggregate base
AHA	activity hazard analysis
APP	Accident Prevention Plan
ARC	Ames Research Center
ASTM	ASTM International
CBR	California black rail
CCR	California clapper rail
COEC	chemical of ecological concern
CPR	Contractor Production Report
CQC	Contractor Quality Control
CQMP	Construction Quality Management Plan
CSO	Caretaker Site Office
CY	cubic yards
DFOW	definable feature of work
EDM	Eastern Diked Marsh
IR	Installation Restoration
ITSI	Innovative Technical Solutions, Inc.
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NAVFAC	Naval Facilities Engineering Command
P.E.	Professional Engineer
PG&E	Pacific Gas and Electric Company
QC	quality control
QCM	Quality Control Manager
QCP	Quality Control Plan
RA	remedial action
RD/RAWP	Remedial Design/Remedial Action Work Plan
RFI	Request for Information
RG	remediation goal
ROICC	Resident Officer In Charge of Construction
RPM	Remedial Project Manager
SAP	Sampling and Analysis Plan
SHSP	Site Health and Safety Plan
SHSS	Site Health and Safety Specialist
SMHM	salt marsh harvest mouse
SWRP	Storm Water Retention Pond
SWSB	Storm Water Settling Basin
T&D	transport and disposal
TO	Task Order
USA North	Underground Service Alert of Northern California and Nevada

1.0 INTRODUCTION

Under Contract N62473-10-D-0808, Task Order (TO) 0003, Innovative Technical Solutions, Inc. (ITSI), prepared this Quality Control Plan (QCP) to address construction quality control (QC) procedures to be followed during implementation of the remedial action (RA) planned for Installation Restoration (IR) Site 25 at former Naval Air Station (NAS) Moffett Field, Moffett Field, California. The QCP is an attachment to the Remedial Design/Remedial Action Work Plan (RD/RAWP) prepared for the project. ITSI also has developed an Accident Prevention Plan (APP; ITSI, 2012) that includes a Site Health and Safety Plan (SHSP) for this project. All work will be done in accordance with those documents.

This QCP is consistent with the program-level Construction Quality Management Plan (CQMP; ITSI, 2010), and sets forth the personnel, roles and responsibilities, procedures, documentation, testing, inspection, and mitigation requirements for establishing and maintaining QC during this project.

2.0 QUALITY CONTROL ORGANIZATION

Key personnel in ITSI's QC organization for this project include:

- Quality Control Program Manager: Cheryl Prince.
- Quality Control Manager (QCM): Raymond Spencer.
- Project Manager and QC Engineer: Robert Lindfors, Professional Engineer (P.E.).

Reporting and communication relationships between these key QC personnel, the ITSI field team, subcontractors, and Navy representatives, are shown on Figure 5, Project Organization Chart, of the RD/RAWP.

The QCM will be present on site during construction activities, and will supervise and oversee the quality of work performed by ITSI personnel and subcontractors on the project. The QCM will also be part of the contractor safety inspection program at the site. Additional duties for the QCM are as follows:

- Conduct and document minutes of the Coordination and Mutual Understanding Meeting (Section 2.1).
- Direct all testing, and prepare and submit all required reports and QC documentation.
- Chair the weekly contractor quality control (CQC) meetings and provide minutes of these meetings.
- Compile and review QC reports.
- Check incoming material items to ensure their condition and conformance to the Contract Plans and Specifications, including approved submittals.
- Direct and implement the three-phase QC system (Preparatory, Initial, and Follow-Up).
- Review and ensure that pertinent portions of the safety plan and appropriate activity hazard analysis (AHA) are covered in the preliminary inspection meetings and are implemented throughout the work.
- Maintain a record of field activities.
- Review the QC results.
- Prepare and submit required project submittals.
- Perform field performance and system audits.

- Determine that incidents of noncompliance are reported to the Project Manager and Site Superintendent.
- Provide reports or memoranda or both regarding completion of corrective actions.
- Prepare and compile the data needed to complete inspection test reports and test forms.
- Prepare and submit daily inspection reports for each field activity day to the Resident Officer in Charge of Construction (ROICC).
- Document rework and punch list items on daily reports.
- Conduct pre-final and final inspections.

The QCM has the authority to stop work if contract requirements are not being met. In the event the QCM is unavailable, the designated alternate will assume these responsibilities.

The QCM will report directly to the ITSI Quality Control Program Manager, and will work closely with the ITSI Project Manager and QC Engineer, to assure that work is performed in conformance with the approved work plan. The Project Manager will report to ITSI's Program Manager for the prime contract. The Program Manager has the responsibility and authority to insure that the work is performed according to the contract requirements, and to the satisfaction of Naval Facilities Engineering Command (NAVFAC) Southwest.

2.1 COORDINATION AND MUTUAL UNDERSTANDING MEETING

The Contractor, the QCM, and the ROICC Construction Management Team will meet to discuss QC requirements after the QCP is submitted and prior to the start of construction. The ROICC Construction Manager will coordinate the time and place of the meeting and prepare the agenda. The agenda must require the Contractor to present the QC system in its entirety. The agenda and length of this meeting depend upon the contractor's familiarity with the QC requirements. The purpose of this meeting is to establish a mutual understanding of the QC and QA requirements for the contract.

The ROICC Construction Management Team should thoroughly review the proposed QCP before the meeting. At a minimum, the Contractor's QCM, Project Manager, Site Superintendent, and the ROICC Project Engineering Technician shall attend this meeting. Each

subcontractor who will be assigned QC responsibilities shall have a principal of the firm at the meeting. Every detail of the contractual requirements relative to QC, the relationships of the QCM to the Site Superintendent and to the Government representatives, and the basic philosophy of the CQMP should be discussed.

The Contractor is required to explain in detail how the three phases of control will be implemented for each definable feature of work (DFOW). Minutes of the meeting will be prepared by the QCM and signed by the Contractor and the ROICC Project Engineering Technician. The Contractor will provide a copy of the signed minutes to all attendees.

The Coordination and Mutual Understanding Meeting must be repeated when a new QCM is appointed. The Contractor may be required to provide a room acceptable to the ROICC for the one-day meeting. The room may need to be equipped with audio-visual equipment, e.g., an overhead projector, or other equipment, depending upon the nature of the presentations.

3.0 SUBMITTAL PROCEDURES

Attachment 2 includes a TO-specific Submittal Register. As indicated, this register covers only planning documents. However, at the discretion of the QC Engineer, construction subcontractors and equipment vendors may be required to submit technical submittals including drawings, equipment specifications, and catalog data to ITSI for approval. The submittal process will be keyed to the project schedule through the combined efforts of the QCM, the QC Engineer, and the Project Manager. Ultimately, the Project Manager is responsible for and must certify that the submittals comply with contract requirements. To accomplish this task, the Project Manager will have the following duties:

- Integrate the submittal process into the QC program.
- Delegate submittal responsibilities to the proper individuals within the company.
- Coordinate with subcontractors, suppliers, and purchasing agents for the timely receipt of submittals required of them.
- Perform a detailed review of all submittals to ensure that they comply fully with contract specifications and code requirements.
- Check the submittal schedule requirements against the accepted project schedule.
- Check and approve all items before submittal. Each item of the submittal must be stamped, signed, and dated.
- Regularly review the submittal register to ensure that the register reflects current information.
- Fully describe, identify, and justify all variations in the transmittal package(s).
- Ensure that work does not begin without the properly accepted submittals.

The QCM will serve as Submittals Manager for technical submittals that may arise during project execution. As such, he will be responsible for the following:

- Updating and maintaining the project Submittal Register.
- Preparing and organizing all submittal items before inspection and approval by the Project Manager.
- Maintaining and adjusting dates on the Submittal Register as directed by the Project Manager and the Navy.

- Organizing and maintaining all submittals (accepted and unaccepted) for convenient reference.

The procedure for internal ITSI approval of submittals is as follows:

- As applicable, the subcontractor or vendor will forward relevant drawings, equipment specifications, and/or catalog data to the QCM or designee, for review. The QCM will verify that the information is complete as required by the applicable section of the construction specifications. The QCM also will verify that each item supplied conforms to the specifications.
- Results of any on-site testing will be provided to the QCM for review. The QCM will verify that the test methods and results are consistent with the project requirements. Copies of the test results will be provided to the Navy for information only.
- Variations in materials from specifications will be directed to the QC Engineer for review and approval prior to acceptance and/or use of the materials. If the alternative materials are unacceptable, the materials will be rejected. If the alternative materials are acceptable, the Project Manager will notify the Navy of the acceptability of the alternative materials prior to the use and/or acceptance of the materials.

4.0 DEFINABLE FEATURES OF WORK

A DFOW is a representative portion of work that is separate and distinct from any other work. DFOWs and subtasks related to the RA at IR Site 25 are outlined below and are further described in the RD/RAWP.

4.1 DFOW 1: BIOLOGICAL STUDIES AND OVERSIGHT

This activity will include a review of pre-construction biological studies, including the biological assessment and related correspondence from oversight regulatory agencies. The biologist will conduct a Biological Research Education Program for all field personnel prior to any site entry. Species of note for IR Site 25 include the salt marsh harvest mouse (SMHM) and two birds, the California black rail (CBR), and the California clapper rail (CCR). Arrangements for on-site overseeing biologists will be formalized, and their authority will be communicated.

4.2 DFOW 2: SEDIMENT SAMPLING (PRE-CONSTRUCTION)

The initial activity for this project will be to sample sediment (in areas planned for excavation and removal) to characterize (profile) the material adequately to gain acceptance at waste disposal facilities. The frequencies of testing and the required analytes are indicated in Section 4.3 of the RD/RAWP. In addition to profiling, this initial activity will include sampling sediment in planned borrow areas to characterize the material as being of sufficient quality to allow its use during site restoration activities. The borrow area sampling is detailed in the SAP (Appendix B to the RD/RAWP). This activity will consist of a land-based effort by a team on foot and a water-based effort by a boat crew. Clearance of buried utilities will be required.

4.3 DFOW 3: SALVAGE PICKLEWEED AND SALT GRASS (PRE-CONSTRUCTION)

To provide a high degree of success (i.e., vegetation growth) during site restoration efforts, pickleweed and salt grasses will be harvested from clean wetland areas. The cuttings will be transported to an off-site nursery to generate plugs for planting during restoration efforts. Approximately 39,000 plugs of combined pickleweed and salt grass will be needed to restore 8 acres. The actual numbers of pickleweed and salt grass plants to be harvested will be assessed in the field – the objective is to be able to restore the areas to match existing conditions.

4.4 DFOW 4: INSTALLATION OF TEMPORARY DAMS (PRE-CONSTRUCTION)

This activity will include installing temporary dams including:

- Plastic-partition-type (Portadam™ or equal). This technology will be used as follows: (1) two short installations (about 150 feet each) will be used to isolate areas of sensitive habitat, i.e., pickleweed, along the northwestern portion of the levee that separates the SWRP Central Basin from the SWRP NE Basin; and (2) a 900-foot installation will be used in a north-south alignment to separate the Central Basin from the MROSD footprint. Maximum height of the plastic dams will be 7 feet.
- Water-filled-tube type (Aquatube™ or equal): This technology will be used to augment the levee that separates the SWRP Central Basin from the NE Basin to provide a barrier at an elevation of 3.5 feet msl.

The temporary dams will be installed in support of the water diversion activity described below. The dams will remain in place until site restoration activities are completed.

4.5 DFOW 5: WATER DIVERSION (PRE-CONSTRUCTION)

This activity will include pumping water from different portions of the SWRP to allow sediment excavation, backfill, and biological restoration to occur. Phase 1 will entail pumping from the Central Basin of the SWRP to the eastern and western SWRP portions. This activity will include staging a pump trailer with diesel generator and related infrastructure. A security company will be utilized to monitor the pumping system during non-work hours. Pumping will not occur on weekends.

4.6 DFOW 6: MOBILIZATION AND SITE PREPARATION

Preparation for site work will include issuing notifications, obtaining any required passes and permits, conducting a pre-construction photographic survey, mobilization, and establishing equipment staging/setup activities for the field crew. National Aeronautics and Space Administration (NASA) Ames Research Center (ARC) facility staff, along with the Navy Caretaker Site Office (CSO) representative, Navy ROICC, and NAVFAC Remedial Project Manager (RPM), will be notified of intended the dates for fieldwork at least 48 hours prior to the start of field activities. The following additional activities will be conducted during this DFOW:

- Verify that proper pre-construction biological surveys have been conducted.
- Verify that all necessary permits listed in the RD/RAWP are in hand and that all permitting requirements are met.

- Mark areas where intrusive work will be performed for underground utility clearance by Underground Service Alert of Northern California and Nevada (USA North).
- Complete utility clearances by an underground utility locator service.
- Notify the Navy if any utilities may be impacted.
- Establish staging, truck-call areas, and laydown areas.
- Establish decontamination areas for equipment and personnel as necessary.
- Coordinate all temporary utilities to be used during construction.
- Install new temporary access roadways and ramps and conduct any other required access improvements. Temporary roads and ramps will be constructed of imported aggregate base and removed after they are no longer needed.
- Establish site traffic controls and Bay Trail closures as necessary.

4.7 DFOW 7: CLEARING AND GRUBBING

This activity will include removing vegetation and other obstructions as necessary. Vegetation clearance will require a review of the botanist's pre-construction survey; pickleweed removal will be conducted using non-mechanized hand tools. The QC Engineer may request that pickleweed be harvested and maintained for replanting after excavation activities and backfilling activities are complete (see DFOW 11: Biological Restoration).

4.8 DFOW 8: LAND SURVEYING

Land surveying will be conducted prior to excavation to locate areas for digging. The land surveying will include an assessment of cut-and-fill volumes and verification of other unit-rate items, including 0.5-acre increments of restoration. Surveying related to unit-rate quantities will be conducted by a licensed surveyor, but will be subcontracted through the excavator sub, and verified by the ITSI QC Engineer. No digging will be allowed pending a review of all utility maps and notification to Pacific Gas and Electric Company (PG&E) regarding work near its natural gas transmission lines along North Perimeter Road and Lindbergh Avenue.

4.9 DFOW 9: EXCAVATION OF SEDIMENT

This DFOW includes excavating contaminated sediment from areas depicted in the remedial design (RD) drawings (Appendix D to the RD/RAWP). It is estimated that 30,000 cubic yards

(CY) of sediment will be removed from IR Site 25. The majority of the impacted areas will be excavated to a depth of 6 inches; the deepest planned excavation is 18 inches.

4.10 DFOW 10: SEDIMENT STOCKPILING

As directed by the QC Engineer, sediment may either be direct-loaded onto trucks for off-site transport and disposal (T&D; see DFOW 12) at licensed waste facilities, or stockpiled at a laydown area. Stockpiles will be dampened as needed to mitigate dust and will be covered with high-density polyethylene (HDPE) sheeting and secured with hold-down weights, e.g., sandbags, when not exposed for receiving or moving sediment

4.11 DFOW 11: CONFIRMATION SAMPLING

Post-excavation confirmation sampling of the floors of the excavations will be conducted in accordance with the Sampling and Analysis Plan (SAP; Appendix B to the RD/RAWP). Should concentrations of chemicals of ecological concern (COECs) be detected above the remediation goals (RGs), over-excavation may be conducted. Over-excavation activities will be coordinated through the QC Engineer.

4.12 DFOW 12: LOADING AND TRANSPORT OF CONTAMINATED SOIL

Before excavated sediment is loaded for T&D, the field team will assure that all waste profiles are in place, and that arrangements have been established with the Navy for signed manifests for contaminated sediment. Trucks will proceed to an on-site inspection/decontamination station (location to be determined) and tarped prior to leaving IR Site 25. Trucks will then proceed along a predetermined route within Moffett Field, leave the facility at NASA Gate 17, and proceed over public thoroughfares to the established waste disposal facility.

4.13 DFOW 13: DECONTAMINATION OF EQUIPMENT

All equipment and vehicles that come into contact with contaminated sediment, liquids, and/or infrastructure will be decontaminated before leaving the site. Dry brushing or wiping or both will be the primary decontamination methods used. During periods of rainfall or when significant contamination is present, equipment and vehicles will be washed with a pressure washer over a bermed, lined area. Decontamination water will be contained, collected in a storage tank, and reused on site or disposed of at a licensed disposal facility, based on

characterization. Solids collected in the decontamination area will be stored and characterized for subsequent reuse or disposal. Personnel decontamination areas may be established at work areas, if required in the APP (ITSI, 2012).

4.14 DFOW 14: SITE RESTORATION

As directed by the QC Engineer, select excavations may be backfilled with clean imported material. Some disturbed areas may be hydroseeded; special biological restoration of pickleweed may be required (see DFOW 15). Other activities to be conducted for this DFOW are listed below.

- Remove any temporary roads and laydown areas.
- Restore roadways and other Moffett Field infrastructure to pre-construction conditions.
- Remove temporary infrastructure, including fencing and temporary utilities.
- Administer disposition of any government-owned property.

4.15 DFOW 15: BIOLOGICAL RESTORATION

Pickleweed has special consideration due to its value as habitat for the SMHM, an endangered species commonly found in marshes of San Francisco Bay. Pickleweed removal will be conducted using manual tools only, and only with oversight from a biologist. Restoration procedures will be conducted in coordination with the botanist and biologist.

4.16 DFOW 16: DEMOBILIZATION

Following site restoration and biological restoration, all project vehicles, equipment, tools, and supplies will be removed from the site and a final site inspection will be conducted with the ROICC to verify that the site has been returned to an appropriate/acceptable condition.

5.0 INSPECTIONS AND TESTING

Inspections and tests will be performed during field activities as part of the overall QC activities and as required by project specifications. ITSI will employ an approved independent testing agency to perform geotechnical tests. ITSI will provide the Navy with 24-hour notification before a test is conducted. ITSI will also perform the following activities and record the appropriate information:

- Verify that inspection and testing procedures comply with contract requirements.
- Verify that the required testing facilities and equipment are available and comply with industry standards.
- Verify that the independent testing firm has prepared appropriate records, including test documentation.
- Check instrument calibration data against certified standards.
- Verify that recording forms, including all required test documentation, have been prepared.

5.1 EQUIPMENT INSPECTIONS

The QCM or designee will verify that equipment vendors and subcontractors provide safety equipment checklists with each piece of equipment used on the site. Operators using the equipment also will maintain a daily inspection record for each piece of equipment and machinery used on the site. Equipment inspection forms (dailies) and machinery inspection checklists are included in the APP (ITSI, 2012).

5.2 GEOTECHNICAL TESTS

Geotechnical testing will be conducted during the project, as described below.

5.2.1 Moisture-Density Relationships

Fill (on-site borrow) material used during restoration of shallow excavations will be placed without compaction. Other fill materials may be required for repair of NASA ARC infrastructure. For these materials, moisture-density relationships shall be tested as specified in ASTM International (ASTM) standard ASTM D 1557, *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft³)*. Testing will be performed at the following frequencies:

- For general fill, moisture-density relationships will be determined at the rate of one test per 5,000 cubic yards (CY), or for each change in material source.
- For imported aggregate base (AB) material used in repair of permanent roads (NASA infrastructure), a moisture-density relationship (ASTM D 1557) will be conducted at a rate of one test per 500 tons of material, or for each change in material source.
- Based on compaction results in the field (Section 5.2.2), the QCM may decide that a field test, e.g., a “one-point” or “check-point” moisture-density relationship, is needed. The “one-point” test will be used to assess whether a laboratory-derived moisture-density relationship (ASTM D 1557) is applicable, or whether a new laboratory moisture-density relationship is needed.

5.2.2 Compaction Testing

As required by the CQC Engineer, compaction testing will be performed on imported fill material and AB used in repair of NASA ARC infrastructure. Tests for density and moisture content will be conducted using a nuclear gauge, in accordance with ASTM D 2922, *Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)* and ASTM D 3017, *Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)*, respectively. Testing frequencies will be as follows:

- For general fill materials: frequency will be one test per 500 CY of placed material.
- For AB material in roadways (paved or unpaved): frequency will be two tests per 5,000 square feet or fraction thereof in each lift.

Required compaction densities will be as follows:

- For unpaved areas, 85 percent maximum dry density.
- For roadways and pavement areas, 95 percent maximum dry density.

Compaction testing will not be performed for poorly graded material, e.g., drain rock and bedding sand, and for topsoil.

6.0 QUALITY CONTROL SYSTEM

The QCM will use a three-phase QC system during this project to ensure the quality of workmanship and results. Three phases of QC will be applied to each DFOW described in Section 4.0.

6.1 PHASE 1 – PREPARATORY PHASE

The Preparatory Phase is the first phase of QC applied to each DFOW. As part of this phase, ITSI will notify the Navy 48 hours (2 working days) prior to a preparatory meeting. Meeting attendees will include the ITSI QCM, Site Superintendent, and Site Health and Safety Specialist, the ROICC, NASA personnel, subcontractors' foremen, and all workers involved in the DFOW. Prior to the meeting, all required submittals, documents, and materials will be approved or accepted, and the ITSI QCM will distribute hard copies of these materials to meeting attendees.

The Preparatory Phase will include the following:

- Review equipment specifications, cut sheets, and drawings.
- Review the submittal/approval status of materials and/or equipment.
- Review provisions for control, inspection, and testing.
- Examine the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- Examine required materials and equipment to assure that they are on hand and conform to submitted data.
- Review the APP and SHSP and the appropriate AHA to assure that safety requirements are met.
- Discuss procedures for controlling the quality of the work.
- Discuss procedures for controlling work quality, including actions to be taken if deficiencies are identified.
- Check to ensure that any subcontractors performing work have the appropriate insurance documentation and that contract paperwork has been completed, submitted, and approved.

The results of the Preparatory Phase actions will be documented by separate minutes prepared by the QCM and attached to the Daily QC Report. The QC Engineer will instruct workers on the acceptable level of workmanship required to meet contract specifications.

Each meeting held during the preparatory phase will be recorded on a Preparatory Phase Checklist (Attachment 3), and noted on the daily Contractor Quality Control (CQC) Report. A Preparatory Phase meeting will be performed again if work on a DFOW has been halted for a significant period and then restarted, or if new crew members arrive at the site. New workers will be instructed in required work practices, workmanship, materials, equipment involved, and AHAs.

6.2 PHASE 2 – INITIAL PHASE

The Initial Phase of QC for each DFOW will commence after the Preparatory Phase is complete, and will continue to the completion of the DFOW. During the Initial Phase, the QCM will monitor and inspect work daily. Procedures during this phase include but are not limited to the tasks listed below.

- Review the minutes of the Preparatory Phase meeting.
- Verify that the quality of workmanship specified for the DFOW will meet minimum acceptable workmanship standards.
- Verify the adequacy of controls to ensure full compliance with contract requirements.
- Verify that all required control, inspection, and testing activities are implemented.
- Resolve all differences.
- Assess safety procedures to verify compliance with the APP, SHSP, and relevant AHA(s), and upgrade the APP and SHSP if needed.
- Inspect work to ensure that it is in full compliance with contract requirements and specifications.
- Review the project schedule.

ITSI will notify the ROICC at least 2 working days before each Initial Phase begins. Each Initial Phase meeting will be recorded on the Initial Phase Checklist and the daily CQC Report (Attachment 3). Minutes for the meetings will be prepared by the QC Engineer and attached to the Daily QC Report. The exact location of Initial Phase work will be noted for future reference and comparison with follow-up phases.

After the Initial Phase meeting has been held and work has started, the QCM will document QC activities related to that DFOW on the daily reports until completion of that particular feature of work, to verify that control activities are providing compliance with contract requirements. The Initial Phase will be repeated for a DFOW whenever specified quality standards or levels of workmanship are not being met.

Any deficiencies in quality, workmanship, material, equipment, or supplies will be recorded on the daily report. The deficiency will then be tracked until corrected, following the process outlined in Section 7.0. The QCM has the full authority to work directly with ITSI personnel and subcontractors to correct minor deficiencies. Depending on the severity of any deficiency, the QCM may confer with the Project Manager to devise an appropriate corrective action.

6.3 PHASE 3 – FOLLOW-UP PHASE

The Follow-Up Phase of QC occurs during the latter stages of each DFOW, and involves performing checks to ensure that all requirements of the contract have been met. Tasks to be conducted during this phase, as appropriate, are as follows:

- Verify that any deficiencies have been corrected prior to the start of additional DFOWs that may be affected by the deficient work.
- Verify that any non-conforming work has been corrected.
- Verify that daily records are maintained correctly.
- Verify that all deficiencies have been corrected before pre-final or final inspections are requested.
- Notify the ITSI Project Manager that the project is ready for a pre-final Inspection.
- Notify the ITSI Project Manager that the project is ready for the final inspection.
- Verify that quality work standards have been maintained.
- Verify adherence to applicable change orders.
- Verify that work is proceeding safely and in full compliance with the APP and SHSP.
- Verify that required testing is performed.

Additional Preparatory Phase and Initial Phase checks will be conducted on the same DFOW if the quality of ongoing work is unacceptable.

7.0 TRACKING CONSTRUCTION DEFICIENCIES

The QCM and/or Project Manager will review any instances where materials, components, assemblies, features of work, or completed products fail to meet the specified requirements, and will take appropriate action to prevent future occurrences.

7.1 NONCONFORMANCE

A “nonconformance” is defined as any item, part, or product with one or more characteristics that depart from the specification or drawing or other approved methods, thus making the nonconforming material, workmanship, or equipment potentially unfit for use. This term generally may be used interchangeably with “deficiency.”

Minor nonconformances will be corrected prior to acceptance of the DFOW encompassing the deficiency. A nonconformance will be identified as “minor” when it does not adversely affect any of the following conditions:

- Health and safety
- Performance, reliability, or maintainability of the item or assembly
- Durability or longevity of the item or the assembly or system of which it is a component part

A nonconformance will be identified as “major” when one or more of the conditions listed above is affected. Major nonconformances will be addressed in the following manner:

- The portion of work that is affected by the nonconformance will be stopped.
- The deficiency will be corrected, repaired, removed, or replaced before the impacted work continues.

Deficiencies will be noted in the daily CQC Report, in a Nonconformance Report, and in a Rework Items List (Attachment 3). Deficiencies recorded in this list will be assigned a sequential number. The notation in the Rework Items List will include the location of the discrepancy and a concise description of the discrepancy. Poor performance by workers, subcontractors, or suppliers may result in termination of their services. To preclude recurrence

of non-conforming conditions, the QCM will investigate similar work items, identify the cause of the problem, and take appropriate corrective and/or preventive action as required.

7.2 CORRECTIVE AND PREVENTIVE ACTION

The ITSI QC program provides for the prompt detection and correction of conditions adverse to quality. Corrective and preventive actions will extend to the performance of subcontractors and vendors and will be responsive to feedback and comments from the Navy. Preventive actions will emphasize planning and productivity to prevent conditions adverse to quality. Corrective action procedures will emphasize the determination of root causes and the prevention of recurrences to achieve outcomes satisfactory to the Navy.

Implementation of a preventive action will begin with the identification of a potential or existing condition adverse to quality. All ITSI and subcontractor personnel will be responsible for bringing potential nonconformances to the attention of the Site Superintendent or QCM. Client complaints and requests for corrective action also will be documented and routed to the Project Manager or QCM as appropriate.

The extent of corrective or preventive action taken will be commensurate with the magnitude of the condition and the associated risk factor(s). At a minimum, the following will be incorporated as part of a corrective/preventive action:

- The QCM will write a Nonconformance Report (Attachment 3) and provide it to the Project Manager as soon as possible.
- The deficiency will be identified in the daily CQC report.
- Suggestions for corrective/preventive measures will be developed by the QCM, PM, or their designees.
- A timetable for final resolution will be established.

After the deficiency is corrected, additional follow-up inspections will be performed, and compliance will be documented in the Corrective Action Report (Attachment 3).

8.0 INSPECTIONS

8.1 PUNCH-LIST INSPECTION

Near the completion of the work on the project or a DFO, the QCM will prepare a “punch list” of items that do not conform to approved specifications. Items included on the Rework Items List (Attachment 3) that were not completed at the time the punch list was prepared will be included on the punch list. The punch list will include the estimated date by which the remaining deficiencies will be corrected. A copy of the punch list will be made available to the Navy ROICC. The QCM will make follow-on inspections to ascertain that all deficiencies have been corrected.

8.2 PRE-FINAL INSPECTION

Following correction of the deficiencies identified on the punch list, the Navy ROICC will be notified that the specified work is ready for a pre-final inspection. The Navy RPM, NASA ARC representatives, and other interested parties also will be invited to the inspection. The QCM and the Navy ROICC or designee will conduct the pre-final inspection. Following this inspection, the Navy may prepare a Rework Items List, i.e., a list of items that must be corrected prior to the final inspection by the Navy. Any items noted during the pre-final inspection will be corrected in a timely manner, and will be accomplished within the time slated for completion of all work.

8.3 FINAL INSPECTION

When all items noted during the pre-final inspection have been corrected, the ITSI QCM will notify the Navy ROICC, RPM, or designee to schedule a final inspection. The Navy RPM, NASA ARC representatives, and other interested parties also will be invited to the inspection. If the final inspection is satisfactory, the Navy ROICC and RPM will issue a formal acceptance of the construction.

9.0 DOCUMENTATION

This section briefly describes QC documentation to be prepared for the project. Attachment 3 includes template copies of each form mentioned.

9.1 QC PHASES

As previously described, each QC phase for each DFOW will be documented on the Preparatory Phase, Initial Phase, and Final Follow-Up Checklists.

9.2 QC MEETING MINUTES

After the start of construction, the QCM will conduct weekly QC meetings at the work site with the Site Superintendent, QC Specialists, and the foremen of subcontractors who are performing the work on the current DFOWs. The ROICC and RPM or other Navy representatives also may attend these meetings. At a minimum, the following will be accomplished at each QC meeting:

- Review the minutes of the previous meeting.
- Review the minutes of the previous meeting.
- Review the schedule and the status of work and rework.
- Review the status of submittals.
- Review the work to be accomplished in the next two weeks and identify the documentation required.
- Resolve QC and production problems (pending Requests for Information [RFIs], etc.).
- Address items that may require revision of the QCP.
- Review the APP and/or applicable AHAs.
- Review environmental requirements and procedures.
- Review the Waste Management Plan, the Environmental Protection Plan, and the status of training completion requirements, as applicable.

The QCM will prepare the minutes of the QC meetings and provide a copy to the Navy within 2 working days after the meeting.

9.3 QUALITY CONTROL VALIDATION

The QCM will establish and maintain a series of three-ring binders, divided and tabbed, containing the information listed below. These binders will be readily available to the client during all business hours.

- All completed Preparatory and Initial Phase Checklists, arranged by DFO
- All milestone inspections
- An up-to-date copy of the Testing Plan and Log with supporting field test reports, arranged by DFO
- Copies of all contract modifications, arranged in numerical order, along with documentation that modified work has been accomplished
- An up-to-date copy of the Rework Items List
- Copies of QC Meeting minutes, arranged by date
- Up-to-date copies of all punch lists issued by the QC staff to the Contractor and subcontractors and all punch lists issued by the Government
- (As appropriate) Commissioning documentation including checklists, schedules, tests, and reports
- (As appropriate) Other QC-related correspondence and notes, arranged by date

9.4 DAILY REPORTS

Work performed will be documented on a daily basis in the Contractor Production Report (CPR) and CQC Report (Attachment 3). These reports, along with any attachments (safety, etc.), will be completed on a daily basis by the QCM or his designee and will be submitted to the Navy ROICC by 10:00 a.m. the following work day.

The daily Contractor Production Report will include the following information:

- Weather conditions
- ITSI and subcontractor personnel on site
- Health and safety information
- List of materials received
- List of equipment on site
- Brief description of field activities performed
- List of action items

- List of visitors
- Changes from plans and specifications

Typically, the daily CQC Report will include the following information:

- QC phases being performed, with DFOWs
- If work is in the Follow-Up Phase, a description of work
- Rework items identified
- Any tests, inspections, or QC activities performed, with results and references to specifications/drawings or other requirements

9.5 DOCUMENTATION OF DEFICIENCIES

As previously described, deficiencies will be recorded in a Nonconformance Report and tracked on a Rework Items List. As a deficiency is corrected, a Corrective Action Report will be filled out and filed.

9.6 AS-BUILTS

The ITSI Site Superintendent or QCM will mark up the design drawings or specifications when deviations from these documents occur. These mark-ups will be used in preparing record drawings (“as-builts”) for submission at the end of the project.

10.0 REFERENCES

Innovative Technical Solutions, Inc. (ITSI), 2010. Construction Quality Management Plan (CQMP), Environmental Remediation Services for Radiological Contaminants at Various Navy and Marine Corps Installations, Contract No. N62473-10-D-0808. April.

ITSI, 2012. Accident Prevention Plan, Remedial Action at IR Site 25, Former NAS Moffett Field, Moffett Field, California. January.

QCP ATTACHMENT 1
DESIGNATION LETTERS AND QUALITY CONTROL TRAINING CERTIFICATES





**Innovative
Technical
Solutions, Inc.**
A Gilbane Company

June 7, 2011

Mr. Ray Spencer
ITSI
2730 Shadelands Drive
Suite 100
Walnut Creek, CA 94598

via email: RSpencer@itsi.com

Subject: Appointment of Project Quality Control Manager
NAVFAC RAD MAC N62473-10-D-0808, Delivery Order 0003
Remedial Action for IR Site 25
NAS Moffett Field, CA
ITSI Project 07204.0003

Dear Mr. Spencer:

You are appointed Quality Control Manager (QCM) for the above-referenced project. Your responsibilities and duties are described in the Quality Control (QC) Plan approved by ITSI for this project.

You are responsible for implementing the QC Plan and for providing quality inspections to ensure work is performed in accordance with the plan and with Contract specifications. You have the responsibility and full authority to stop work on any portion of work that does not conform to the project contract documents.

You are to report directly to me on quality matters. If you require any other information, please do not hesitate to call me. You can reach me at 925-946-3334 (office), 925-457-7808 (cell), or by e-mail at cprince@itsi.com.

Sincerely,

Cheryl D. Prince
NAVFAC RAD MAC Program QC Manager and
ITSI Corporate QA/QC Director

CDP:cmn

cc: Mr. Charles W. Depew, NAVFAC SW Contracting Officer
Mr. Bryce Bartelma, NAVFAC SW Remedial Project Manager
Mr. Michael Salmon, ITSI Program Manager
Mr. Arvind Acharya, ITSI Technical Manager
Mr. Robert Lindfors, Project Manager

Global Infrastructure

Environmental

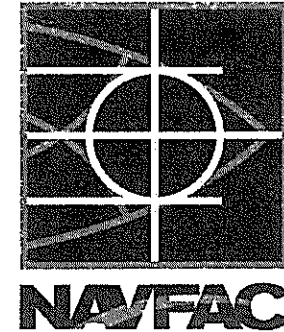
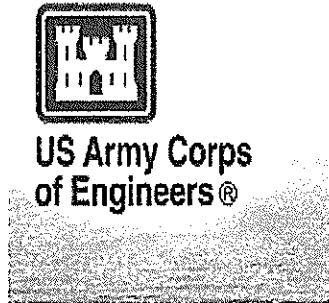
Design-Build

2730 Shadelands Drive, Suite 100
Walnut Creek, CA 94598

(925) 946-3100
fax (925) 256-8998
www.itsi.com

NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST

U.S. ARMY Corps of Engineers



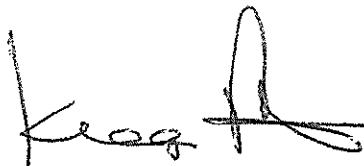
PRESENTS THIS CERTIFICATE TO

Ray Spencer

WHO HAS SUCCESSFULLY COMPLETED

August 31 - September 1, 2010

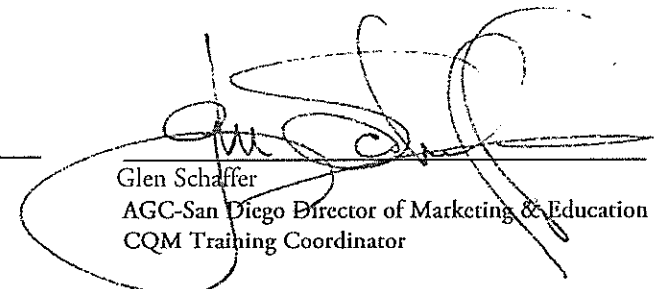
U.S.A.C.E. Construction Quality Management for Contractors



Kugan Panchadsaram PE, PMP
CQM Facilitator
Kugan & Associates Inc.



Dennis Chung
US Army Corps of Engineers
San Francisco District



Glen Schaffer
AGC-San Diego Director of Marketing & Education
CQM Training Coordinator

This Certificate is valid for 5 years from the date above



**Innovative
Technical
Solutions, Inc.**
A Gilbane Company

March 29, 2011

Mr. Rogerio Leong
ITSI
2730 Shadelands Drive
Suite 100
Walnut Creek, CA 94598

via email: rleong@itsi.com

Subject: Appointment of Alternate Project Quality Control Manager
NAVFAC RAD MAC N62473-10-D-0808, Delivery Order 0003
Remedial Action for IR Site 25
NAS Moffett Field, CA
ITSI Project 07204.0003

Dear Mr. Leong:

You have been appointed Alternate Quality Control Manager (QCM) for the above-referenced project. The QCM responsibilities and duties are described in the Quality Control (QC) Plan approved by ITSI for this project. If you are called upon to serve in this capacity, you will have all of the same responsibilities for implementing the QC Plan and for providing quality inspections to ensure work is performed in accordance with the plan and with Contract specifications.

In the QCM role, you are responsible for implementing the QC Plan and for providing quality inspections to ensure work is performed in accordance with the plan and contract requirements. You have the responsibility and full authority to stop work on any portion of work that does not conform to the project contract documents.

You are to report directly to me on quality matters. If you require any other information, please do not hesitate to call me. You can reach me at 925-946-3334 (office), 925-457-7808 (cell), or by e-mail at cprince@itsi.com.

Sincerely,

Cheryl D. Prince
NAVFAC RAD MAC QC Manager and
ITSI Corporate QA/QC Director

CDP:cmn

cc: Mr. Charles W. Depew, Contracting Officer
Mr. Tom Dillon, ITSI Program Manager
Mr. Arvind Acharya, ITSI Technical Manager
Mr. Robert Lindfors, Project Manager
Mr. Jeff Hess, ITSI Regional Manager

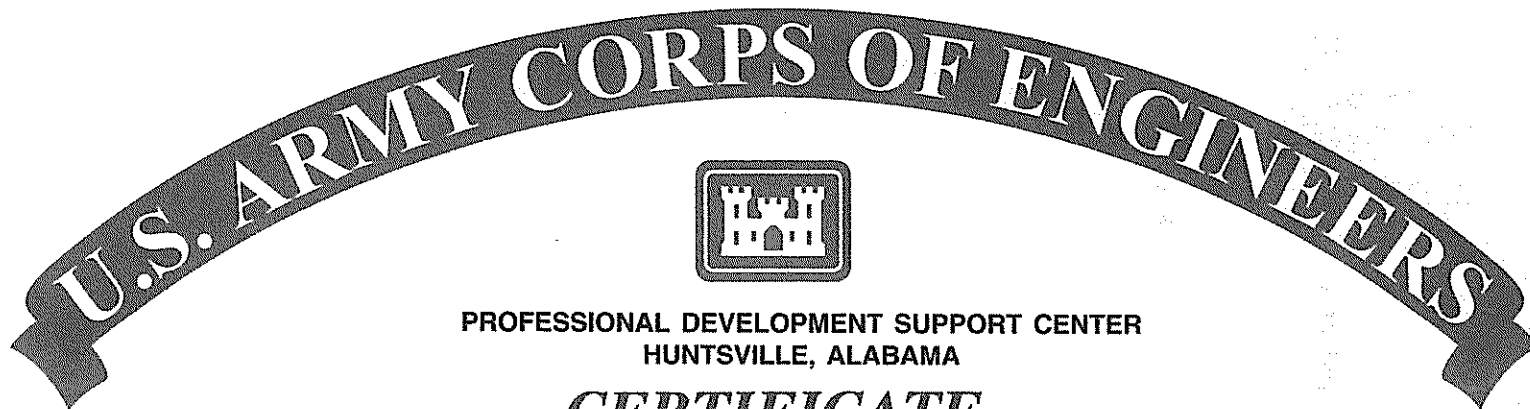
Global Infrastructure

Environmental

Design-Build

2730 Shadelands Drive, Suite 100
Walnut Creek, CA 94598

(925) 946-3100
fax (925) 256-8998
www.itsi.com



PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

This is to certify that

ROGERIO LEONG


has completed the Corps of Engineers Training Course

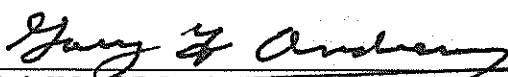
CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Given at Sacramento, CA By Sacramento 1 & 2 AUGUST 2007
Location Instructional District Date

Expires: August 2, 2012
Verification (916) 557-7708

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE


Facilitator


Chief, USACE Professional Development Support Center

**QCP ATTACHMENT 2
SUBMITTAL REGISTER**

QCP ATTACHMENT 3 QC FORMS

Includes:

- a. Preparatory Phase Checklist
- b. Initial Phase Checklist
- c. Definable Feature of Work Form
- d. Contractor Production Report
- e. Contractor Quality Control Report
- f. Testing Plan and Log
- g. Field Change Request
- f. Final Follow-Up Checklist
- g. Nonconformance Report
- h. Corrective Action Report
- i. Rework Items List
- j. ITSI Completion Punchlist
- k. Pre-Final Inspection Form
- l. Final Inspection Form



PREPARATORY PHASE CHECKLIST

(Compete by hand; attach continuation pages as needed)

SPEC SECTION:

DATE:

CONTRACT/TO NO:

PROJECT NAME, NUMBER, AND LOCATION:

DEFINABLE FEATURE OF WORK:

PERSONNEL PRESENT	CLIENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">NAME</th> <th style="width: 30%;">TRADE/DUTY/POSITION</th> <th style="width: 30%;">COMPANY/AGENCY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NAME	TRADE/DUTY/POSITION	COMPANY/AGENCY																					
	NAME	TRADE/DUTY/POSITION	COMPANY/AGENCY																						
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	IF "NO," WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____																								
	ARE ALL MATERIALS ON SITE? YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	IF "NO," WHAT ITEMS ARE MISSING? _____																								
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL (THIS SHOULD BE DONE AS MATERIAL ARRIVES). COMMENTS: _____																								
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	IF "NO," WHAT ACTIONS TAKEN? _____																								
SPECIFICATIONS	WAS EACH APPLICABLE SPECIFICATION PARAGRAPH REVIEWED? YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	IF "NO," WHAT ACTIONS TAKEN? _____																								
	REMARKS ON DISCUSSION OF PROCEDURES FOR ACCOMPLISHING THE WORK. _____																								
	CLARIFY ANY DIFFERENCES. _____																								
PRELIMINARY WORK & PERMITS	IS PRELIMINARY WORK CORRECT? ARE PERMITS ON FILE? YES <input type="checkbox"/> NO <input type="checkbox"/>																								
	IF "NO," WHAT ACTIONS TAKEN? _____																								



PREPARATORY PHASE CHECKLIST CONTINUATION PAGE

(Continued from first page; complete by hand)

SPEC SECTION:

DATE:

CONTRACT/TO NO:

PROJECT NAME, NUMBER, AND LOCATION:

DEFINABLE FEATURE OF WORK:

TESTING	IDENTIFY TESTS TO BE PERFORMED, FREQUENCY, AND BY WHOM. (Reference Item of Work as identified on Testing and Inspection Plan and Log)

SAFETY	WHEN REQUIRED? _____
SAFETY	WHERE REQUIRED? _____
SAFETY	REVIEW TESTING PLAN. _____
SAFETY	ARE TESTING FACILITIES APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF "NO," WHAT ACTIONS TAKEN? _____

MEETING COMMENTS	IS ACTIVITY HAZARD ANALYSIS APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	WERE APPLICABLE PORTIONS OF H&S PLAN REVIEWED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF "NO," EXPLANATION/COMMENTS: _____
MEETING COMMENTS	CLIENT AND AGENCY REPRESENTATIVES COMMENTS DURING MEETING.

OTHER ITEMS OR REMARKS	

_____ ITSI QC MANAGER	_____ DATE
--------------------------	---------------



INITIAL PHASE CHECKLIST

(Compete by hand; attach additional pages if needed)

SPEC SECTION:

DATE:

CONTRACT/TO NO:

PROJECT NAME, NUMBER, AND LOCATION:

DEFINABLE FEATURE OF WORK:

PERSONNEL PRESENT	CLIENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>	
	NAME	TRADE/DUTY/POSITION
PROCEDURE COMPLIANCE	CONFIRM FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY PHASE. CONFIRM COORDINATION BETWEEN PLANS, SPECIFICATIONS, AND SUBMITTALS	
	COMMENTS: _____	
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTIONS TAKEN?	
WORKMANSHIP	IS REQUIRED LEVEL OF WORKMANSHIP ESTABLISHED? YES <input type="checkbox"/> NO <input type="checkbox"/> (IF "NO," EXPLAIN IN "COMMENTS.")	
	WHERE IS WORK LOCATED? _____	
	IS SAMPLING REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/> (IF "YES," MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE. AND DESCRIBE LOCATION OF SAMPLE.)	
	WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES <input type="checkbox"/> NO <input type="checkbox"/> (IF "NO," EXPLAIN IN "COMMENTS.")	
RESOLUTION	RESOLVE ANY DIFFERENCES.	
	COMMENTS: _____	
CHECK SAFETY	WERE JOB CONDITIONS REVIEWED USING H&S PLAN AND ACTIVITY HAZARD ANALYSIS? YES <input type="checkbox"/> NO <input type="checkbox"/> (IF "NO," EXPLAIN IN "COMMENTS.")	
	COMMENTS: _____	
OTHER	OTHER ITEMS OR REMARKS	

ITSI QC MANAGER

DATE

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE	
CONTRACT NO N62473-10-D-0808		TITLE AND LOCATION 07204.0003 – RA at IR Site 25, Moffett Field		DAY OF THE WEEK	
CONTRACTOR ITSI Gilbane			SUPERINTENDENT		
AM WEATHER		PM WEATHER		MAX TEMP (F)	MIN TEMP (F)
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
JOB SAFETY	WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS
	WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT
	S CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION
	WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (incl Make and Model)			Hours Used
Schedule Activity No.	REMARKS				
<hr/> CONTRACTOR/SUPERINTENDENT					



CONTRACTOR QUALITY CONTROL REPORT

DATE: _____

REPORT NO: _____

PHASE	CONTRACT/TO NO:	PROJECT NAME, NUMBER, AND LOCATION:
-------	-----------------	-------------------------------------

PREPARATORY	WAS PREPARATORY PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/> (If "YES," complete and attach 2-page Preparatory Phase Checklist for each DFW.)	
	Schedule Activity No.	Definable Feature of Work

INITIAL	WAS INITIAL PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/> (If "YES," complete and attach Initial Phase Checklist for each DFW.)	
	Schedule Activity No.	Definable Feature of Work

FOLLOW-UP	WORK COMPLIES WITH CONTRACT/TO AS APPROVED DURING INITIAL PHASE? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	WORK COMPLIES WITH SAFETY REQUIREMENTS? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	Schedule Activity No.	Definable Feature of Work, Description of Work, Testing Performed and By Whom, Specification Section, Location, Personnel Involved, etc. (Attach Testing Results, Material Certifications, etc., as appropriate)

REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)	
Schedule Activity No.	Description	Schedule Activity No.	Description

REMARKS (Also explain any Checklist items above that were answered "NO.")	
Schedule Activity No.	Description

On behalf of the ITS, I certify that this report is complete and correct, and equipment and material used and work performed during this reporting period is in compliance with the contract/TO plans, drawings, and specifications to the best of my knowledge, except as noted in this report.

_____ PROJECT QC MANAGER _____ DATE

CLIENT QUALITY ASSURANCE REVIEW

QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT, AS REQUIRED	
Schedule Activity No.	Description
CLIENT Representative	DATE



FIELD CHANGE REQUEST

Field Change No.:

Project Name:

Project Number:

Task No.:

Date:

Applicable Document(s):

Date:

Description of Change:

Minor Change

Major Change

Requested by:

Reason for Change:

Estimated Cost Impact:

Accepted

Rejected

Signature:

Date:

Project Manager:

Accepted

Rejected

Signature:

Date:

Project QC Manager:

If changes affect engineering drawings and construction specifications:

Accepted

Rejected

Rework

Signature:

Date:

Project Engineer:

For Major Change:

Accepted

Rejected

Client or RPM approval:

Date:

Signature, or attach supporting correspondence or email:

Final Action Taken:

Project Manager Approval:

Date:

FINAL FOLLOW-UP CHECKLIST

PROJECT: _____

CONTRACT NO: _____ DATE: _____

ACTIVITY NO: _____ DESCRIPTION: _____

DATE ACTIVITY STARTED: _____ DATE ACTIVITY REPORTED FINISHED: _____

DEFINABLE FEATURE OF WORK: _____

A. PERSONNEL PRESENT AT FINAL FOLLOW-UP:

	<u>NAME</u>	<u>POSITION</u>	<u>COMPANY</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

B. WHAT TESTING WAS PERFORMED? (Include date performed):

B-I. IS ADDITIONAL TESTING REQUIRED? Yes _____ No _____

C. IS TURN-OVER OF SPECIAL TOOLS OR SPARE PARTS REQUIRED? Yes _____ No _____

REMARKS: _____

D. HAVE ALL SUBMITTALS AND O&M MANUALS BEEN SUBMITTED? Yes _____ No _____

QUALITY CONTROL REPRESENTATIVE

Note: Submit original with CQC Report for this date.

NONCONFORMANCE REPORT

NCR Number:	Project Name:	Project No.:	Date:
PART A : Nonconformance Description (include specific requirement violated):			
Root cause of nonconforming condition:		Identified by:	Date:
PART B: Corrective Action to be taken (include date when action(s) will be completed):			
Anticipated Completion Date:		Performed by:	
PART C: Action to be taken to preclude recurrence:			
Anticipated Completion Date:		Performed by:	
PART D:			
Acceptance by: _____ Project Manager		Date: _____	
Acceptance by: _____ Quality Assurance Officer		Date: _____	
Corrective Action(s) completed by:	Verification completed by:		

CORRECTIVE ACTION REPORT

NCR Number:	Project Name:	Project No.:	Date:
<p>PART A : Nonconformance Description (include specific requirement violated):</p> <p style="text-align: right;">Identified by: _____ Date: _____</p> <p>Root cause of nonconforming condition:</p>			
<p>PART B: Corrective Action to be taken (include date when action(s) will be completed):</p> <p style="text-align: center;">Anticipated Completion Date: _____ Performed by: _____</p>			
<p>PART C: Action to be taken to preclude recurrence:</p> <p style="text-align: center;">Anticipated Completion Date: _____ Performed by: _____</p>			
<p>PART D:</p> <p>Acceptance by: _____ Date: _____</p> <p style="text-align: center;">Project Manager</p>			
<p>Acceptance by: _____ Date: _____</p> <p style="text-align: center;">Quality Assurance Officer</p>			
<p>Corrective Action(s) completed by:</p> 		<p>Verification completed by:</p> 	

