

**Statement of Work
For
Vehicle Support Post
Fabrication
December 18, 2012**

Prepared by:

Tom Ebert, NE-M2
Lead Designer / Mechanical Design

Concurrence:

Tom Ebert, NE-M2
Lead Designer / Mechanical Design

Chad Carl, NE-L4
NASA Materials & Processes Lead

J. Porta, NE-M2
Structures & Mechanisms Design Branch Chief

NASA Quality / PM?

Kennedy Space Center, FL 32899

SOW LOG CHANGE

THIS CHANGE LOG IS FURNISHED IN ORDER TO MAINTAIN A
RECORD OF CHANGES TO THIS STATEMENT OF WORK

CHANGE NO.

DESCRIPTION OF CHANGE

CHANGE DATE

TABLE OF CONTENTS

SECTION	TITLE	PAGE
1	SCOPE AND OBJECTIVE	1
2	CONTRACT OVERVIEW	1
3	APPLICABLE DOCUMENTS AND DEFINITIONS	2
3.1	Contract Drawings, Documents and Specifications.....	2
3.2	Other Applicable Documents	2
4	WORK PLANNING	3
4.1	Schedule.....	3
4.2	Pre-Work Conference	3
4.3	Delays.....	3
4.4	Audits.....	3
5	DESCRIPTION OF WORK	4
5.1	Work Composition	4
5.1.1	Task Description	4
5.1.2	PQA Source Inspection.....	5
5.2	Requirements	5
5.2.1	Drawing Development and Approval.....	5
5.2.2	Foundry & Machining Process Setup & Verification	5
5.2.3	Manufacturing	6
5.2.4	Testing Requirements.....	6
5.2.5	Shipping Requirements.....	6
5.2.6	Task(s) Explication	6
5.3	Technical Submittals.....	7
5.3.1	Deviations and Waivers	7
5.3.2	As-Built Drawings	7
6	TECHNICAL PROVISIONS	8
6.1	General.....	8
6.1.1	Material.....	8
6.1.2	Identification	8
6.1.3	Welding	8
6.1.4	Testing.....	9
6.1.5	Cleaning	9
6.1.6	Delivery and Preparation	9
6.2	Quality Assurance Requirements.....	9
6.2.1	Purpose	9
6.2.2	Organization	9
6.2.3	Government Inspection Requirements.....	10
6.2.4	Acceptance Data Package.....	10

6.3	Acceptance of Work	12
7	REQUIRED SUBMITTALS.....	12
7.1	Schedule of Submittals	12
7.2	NASA's Review Notations.....	13

1 SCOPE AND OBJECTIVE

- A. This project will design and fabricate hardware required to build new Vehicle Support Post Castings for use on the Mobile Launcher (ML) for the Space Launch System (SLS) vehicle at the Kennedy Space Center (KSC), Florida.
- B. This Statement Of Work (SOW) defines the requirements and specifications for the design for manufacturing, fabrication, testing and delivery of new Vehicle Support Post assemblies.
- C. The contractor shall provide all necessary supervision, labor, tools, facilities, supplies, and equipment necessary to perform the work as directed herein. The work shall include the items as set forth in Section 5, Description of Work.
- D. The contractor shall carry out the work as directed in this SOW in accordance with the instructions, drawings, and applicable specifications and codes delineated in the provisions set forth herein.

2 CONTRACT OVERVIEW

- A. Work required by this SOW consists of providing the labor, equipment, and materials to fabricate, test per applicable engineering specifications and deliver Vehicle Support Post castings, to the Launch Equipment Test Facility (LETf), KSC, FL.
- B. The work described herein is to be awarded in serial phases, as follows.
 - a. Phase I work consists of the preparation, submittal and approval of casting and machining drawings, pattern fabrication(s), setup for all fixtures and tooling necessary to begin production. This work includes the performance of the first “test pour” and machining of the first “prototype” Vehicle Support Post. The contractor shall perform layout and inspection of all drawing requirements, and “First Article” destructive analysis of this test pour to verify metallurgical and mechanical compliance. Independently, the contractor shall perform the machining, dimensional and surface finish verification of the first prototype Vehicle Support Post. If the test pour and prototype meet the specifications, the contractor should be ready to start production (Phase II) without delay. This initial phase shall be completed within **twelve** weeks of the contract award date and is intended to verify that the contractor is ready to produce the first useable article(s).
 - b. Phase II work consists of producing, testing, and delivering eight (8) Vehicle Support Posts.

3 APPLICABLE DOCUMENTS AND DEFINITIONS

3.1 Contract Drawings, Documents and Specifications

The following drawings accompany this SOW and are a part thereof:

Drawing No.

719M0600001	Support Post, Vehicle Support Post
719M0300001 (Reference Only)	Vehicle Support Post Assembly (info)

Document(s)

None

1. The publications revision level of referenced documents in effect on the date of issuance of the request for proposal form a part of this SOW, and where referred to herein by basic designation only, are applicable to the extent indicated by the references thereto. In the event of difference between this SOW or its accompanying specification, and the referenced document, the order of precedence shall be:
 - i. Engineering Drawings
 - ii. Statement Of Work
 - iii. Referenced Documentation

Other Applicable Documents

Industry Standards, Specifications, and Publications called out in the contract documents listed in paragraph 3.1 are available from commercial sources. It is the responsibility of the contractor to obtain these. Commercial Specifications include, but are not limited to:

- ASTM A370 Rev A Standard Test Methods and Definitions for Mechanical Testing of Steel Products
- ASME Y14.8-2009 Castings, Forgings, and Molded Parts; Engineering Drawings and Related Documentation Practices
- ASME Y14.5M-1994 Dimensioning and Tolerancing
- ASTM A 488/A 488M Standard Practice for Steel Castings, Welding, Qualifications of Procedures and Personnel
- ASTM A 781/A 781M REV A Standard Specification for Castings, Steel and Alloy, Common Requirements, for General Industrial Use
- ASTM A 802/A802M Standard Practice for Steel Castings, Surface Acceptance Standards, Visual Examination

- ASTM E 94 Standard Guide for Radiographic Examination-Replaces E142
- ASTM E 186 Standard Reference Radiographs for Heavy-Walled (2 to 4 1/2-in. (51 to 114-mm)) Steel Castings
- ASTM E 280 Standard Reference Radiographs for Heavy-Walled (4 1/2 to 12-in. (114 to 305-mm)) Steel Castings
- ASTM E 446 Standard Reference Radiographs for Steel Castings up to 2 in. (51 mm) in Thickness

4 WORK PLANNING

4.1 Schedule

- A. The contractor shall prepare and maintain a schedule of work. This schedule shall include all principal work activities including those of second-tier subcontractors, equipment vendors and suppliers. Two copies (one electronic, one paper) of this initial work schedule, in Gantt format, shall be submitted to the CO within five (5) working days after the award of the contract for approval.
- B. The contractor shall update the schedule on a biweekly basis. The updated schedule shall reflect current work progress and any changes in schedule dates since the previous update. Copy(s) of the updated schedules, in Gantt format, shall be made available to the CO upon request. The contractor agrees that whenever it becomes apparent from updated schedule data that any milestone completion dates and/or contract completion dates will not be met, the contractor shall notify the CO and take whatever action is necessary to recover the schedule.
- C. Any recovery effort undertaken by the contractor shall be at its own expense.

4.2 Pre-Work Conference

Within five (5) days after the award of each contract phase, the contractor and its designated project manager shall be required to support a prework telephone conference to be scheduled by NASA. Production shall not begin until the NASA and the contractor have clarified all the prework conference issues.

4.3 Delays

The contractor shall be fully responsible for monitoring the actual work progress and shall, where delays have occurred due to reasons within the contractor's control, make up any and all lost time at its own expense.

4.4 Audits

The contractor agrees that drawing files and records, quality assurance records and associated documents or such parts as may be engaged in the performance of this contract, shall be subject to inspection and audit to verify conformance to the contract requirements. Copies of all drawings, specifications, engineering or process

procedures, and quality assurance records are deliverable to NASA at the completion of the contract or at any time during the performance of the work as may be deemed necessary by the CO or his designated representative.

5 DESCRIPTION OF WORK

The contractor shall provide all labor, tools, materials (except material listed as GFP) and equipment for fabrication, testing and shipment of Vehicle Support Post assembly hardware in accordance with contract drawings and specifications that are denoted in Section 3 of this SOW.

5.1 Work Composition

5.1.1 Task Description

The work shall be comprised of the following tasks:

A. Drawing Development and Approval

The contractor shall develop, and submit for approval, casting drawings (per ASME Y14.8-2009) and machining drawings (per ASME Y14.5M-1994) as required by the drawing documents and specifications denoted in Section 3 of this SOW. During the design phase the contractor shall evaluate the NASA drawings and make recommendations (if necessary) that will allow for the successful casting of the Vehicle Support Post. This will be a collaborative effort with NASA so that the design intent of the Vehicle Support Post is maintained. The recommendations shall only pertain to changes that will improve the casting processes. All recommended changes shall be approved by the CO prior implementation. Additionally, prior to the fabrication of the "First Article" the contractor shall hold a Design Review with NASA to verify all parties are in agreement with the final design.

B. Foundry & Machining Process Setup & Verification

This task consists of pattern fabrication(s), setup for all fixtures and tooling necessary to begin production, the performance of the first "test pour", and machining of the first "prototype" Vehicle Support Post. The contractor shall perform layout and inspection, "First Article" destructive analysis of the test pour, dimensional and surface finish verification of the prototype, and the hardness and tensile tests as required by the drawing documents and specifications denoted in Section 3 of this SOW and all technical requirements denoted in Sections 5 and 6 of this SOW. Tensile specimens shall be machined from specimens sectioned from the First Article along the critical vertical load path locations at the center of the thickest cross-section as indicated on the drawings. Hardness testing should occur at no less than 10 spaced locations such that the average surface hardness of the entire production part can be ascertained. Cross-sectional hardness measurements should be taken at three equally spaced intervals along the vertical load path of the First Article as indicated on the drawings, including along the thickest cross-section

C. Manufacturing

This task consists of casting, heat treating, tempering, machining and, if necessary, repairing the finished Vehicle Support Post casting assembly to meet all requirements set forth in the drawing documents and specifications denoted in Section 3 and all technical requirements denoted in Sections 5 and 6 of this SOW.

D. Testing

This task consists of performing the necessary tests required to meet all testing requirements set forth in the drawing documents and specifications denoted in Section 3 and all technical requirements denoted in Sections 5 and 6 of this SOW.

E. Shipping

This task consists of packing and shipping the completed Vehicle Support Post assembly hardware, test specimens and patterns and/or molds to NASA, KSC, FL 32899 per the specification documents in Section 3 and Technical Section 6.1.7.

5.1.2 Procurement Quality Assurance Source Inspection

NASA reserves the right to conduct inspections before giving final approval for fabrication and delivery of the Vehicle Support Post assembly hardware.

5.2 Requirements

5.2.1 Drawing Development and Approval

The contractor shall request approval of finished drawings by submitting three full-size hardcopies and one electronic copy (iges, AutoCAD or Pro-E) of the required drawings to the CO for approval.

5.2.2 Foundry & Machining Process Setup & Verification

The contractor shall fabricate pattern(s), setup all fixtures and tooling necessary to begin production.

The contractor shall perform the first “test pour” and verify that it meets the casting materials and process requirements by performing “First Article” inspection of this test pour as required by the drawing documents and specifications denoted in Section 3 of this SOW. Foundry process verification is dependant upon acceptance / witness of test by NASA representatives.

The contractor shall perform the machining of a “prototype” Vehicle Support Post and verify that it meets the dimensional and surface finish requirements as required by the drawing documents and specifications denoted in Section 3 of this SOW. Machining process verification is dependant upon acceptance / witness of inspection and test data by NASA representatives.

5.2.3 Manufacturing

The contractor shall machine the Vehicle Support Post critical interfaces in accordance with the documents set forth in Section 3 and the technical requirements set forth in Section 6 of this SOW.

Except as noted herein, manufacturing shall be performed to produce the VSP casting end items for eight (8) Vehicle Support Post Casting assemblies (719M0600001). This batch quantity excludes the Vehicle Support Post assembly that will be destructively tested "First Article" early in the production of the initial batch.

5.2.4 Testing Requirements

The contractor shall perform all tests and meet all testing requirements set forth in the drawing documents and specifications denoted in Section 3 and all technical requirements denoted in Section 6 of this SOW.

The contractor shall document all tests result in either a pass, fail/repair, or fail disposition that shall be documented and retained with each test article.

The contractor shall notify the CO, or representative, when a test results in failure, with no option for repair for approval of a revised test plan that is designed to ensure end item quality.

The contractor shall include all test item specimens, suitable for independent analysis, with the Vehicle Support Post assembly hardware deliveries that follow test performance.

- A. Casting Material and Process Validation: Initial testing of the casting material and process validation consists of "First Article" analysis of the test pour, including hardness and tensile tests as required by the drawing documents and specifications denoted in Section 3 of this SOW and all technical requirements denoted in Sections 5 and 6 of this SOW.
- B. Post Hardness: Every Post produced shall have surface hardness measurements performed with results recorded on individual hardness maps. Every Post produced shall be inspected visually and radiographically.

5.2.5 Shipping Requirements

The contractor shall meet all packing and all shipping requirements of the Vehicle Support Post Casting assembly, test item specimens and molds / patterns per the requirements stated in Section 6 of this SOW.

5.2.6 Task(s) Explication

The contractor shall complete all work tasks in the engineering drawings and applicable documents in Section 3 and 6 of this Statement of Work.

5.3 Change Process

5.3.1 Requests for Information /Clarification (RFI/C)

The Contractor shall promptly report to the Contracting Officer all issues associated with execution of the contract, this includes questions for clarification of information, problems that could potentially affect cost, or schedule, proposed changes that may affect, form, fit, or function or conflicting technical information. Such issues shall be reported on KSC Form No. 8-268, "Request for Information/Clarification," to be provided by the. The Contractor shall provide a copy of each RFIC to the Contracting Officer's Technical Representative (COTR) concurrently with the transmittal to the Contracting Officer when issues are identified. The Contractor shall log and control each Request for Information/Clarification (RFIC), including those generated by their subcontractors, if applicable. The request shall be technically supported by cause or justification, rationale, design and performance impacts, calculations, and any other data that supports conclusive evaluation. Where a requested issue on a particular aspect of the actuators work has a relation to, or affects, other aspects of the work, those other aspects of the work shall be clearly identified and referenced. The CO will provide official written disposition of the RFI thought the Contracting Officer and include supporting information, such as revisions to drawings, specifications and standards to detail the change as required.

5.3.2 Deviations and Waivers

- A. If the contractor proposes to perform work which does not conform to the requirements of the contract drawings and specification, the contractor shall submit to the CO for approval, a written request for deviation or request for waiver on the nonconforming work using KSC Form 869, Deviation/Waiver Request. The request must be technically supported by justification, cost, rationale, design and conclusive evaluation as to acceptability or non-acceptability. Any request not submitted in strict accordance with this provision may not be considered.
- B. Where a requested deviation or waiver on a particular aspect of the work has a relation to, or affects other aspects of the work, those other aspects of the work shall be clearly identified and referenced. Additionally, if the requested deviation of waiver necessitates a deviation or waiver on other aspects, request for all such deviations and waivers must be submitted concurrently.

5.3.3 As-Built Drawings

- A. The contractor shall prepare and keep up to date a complete set of redlined As-Built Documentation which shows all approved changes from the original drawings. Included shall be all RFIs issued during the contract performance. All catalog cuts, diagrams, layouts, literature, illustrations, test data, and similar materials furnished by the contractor to explain specific portions of work required by the contract shall be included.
- B. The contractor shall submit 3 sets hardcopy and one electronic copy of redlined as-built drawings to the CO as part of the turnover package upon completion of the contract

- C. Quality Control shall verify the accuracy of the As-Built Drawings prior to acceptance of the end items.

6 TECHNICAL PROVISIONS

6.1 General

This section covers technical provisions for the work efforts specified in Section 5. Where a difference exists between the specifications and technical provisions, those differences shall be brought to the attention of the CTM or his designated representative using a RFI.

6.1.1 Material

- A. The contractor shall provide to NASA the following: All certification of material compliances, catalog cuts, shop drawings, etc., for all contractor purchased materials and equipment.
- B. The contractor shall submit a letter of compliance for all special processes (casting, heat treating, tempering, machining, welding, etc.) provided for this contract.
- C. The contractor shall submit catalog cuts for NASA approval for all material the contractor wishes to supply as "equal".
- D. Contractor furnished material considered by NASA to be long lead items and any other long lead material identified by the contractor shall provide status biweekly. Material shall be identified by vendor, part number, nomenclature, quantity and availability versus need date.
- E. The contractor shall not utilize any materials that do not have prior approval of NASA.

6.1.2 Identification

- A. The identification of the Support Post and Access Doors shall be in accordance with the drawings referenced in Section 3.1 of this SOW.

6.1.3 Welding

- A. Welding shall be limited to the casting repairs and shall be performed in accordance with the drawings referenced in Section 3.1 of this SOW and the applicable requirements of AWS-D1.1 and ASME, Section IX.
- B. All weld repairs shall be documented and retained with each article.
- C. All inspection records for welds shall be made subject to NASA quality review.
- D. All qualifications of welding operators shall be in conformance with the applicable requirements of AWS-D1.1 and ASME, Section IX, Article III. All welding electrodes shall be in conformance with the applicable requirements of ASME Section IX.

6.1.4 Testing

In addition to the tests required in the engineering drawings listed in Section 3.1 of this SOW the contractor shall be required to:

- A. Submit to NASA for approval ten (10) working days prior to each test performance, a written test plan with complete details on test set-up and procedures.
- B. Notify NASA ten (10) working days prior to each test performance to allow NASA and/or Government representatives time to witness the test(s).
- C. Document and retain all test data and results with each end item for inclusion in individual data packs that will be delivered to KSC.

6.1.5 Cleaning

- A. Cleaning of end items shall be accomplished per basic shop practices.

6.1.6 Delivery and Preparation

- A. Packing, marking, handling and transportation of all hardware shall be in accordance with NPG 6000.1.
- B. Delivery of the finished products shall be accomplished by the contractor with incremental deliveries of Vehicle Support Post assemblies to the Launch Equipment Test Facility, K6-743 at KSC after final acceptance of the products.

6.2 Quality Assurance Requirements

6.2.1 Purpose

The purpose of this section is to emphasize several requirements considered mandatory for an acceptable quality program. This section will apply to all phases of the contract performance. The contractor shall ensure that their quality plan is on file with NASA prior to start of fabrication.

6.2.2 Organization

- A. The Contractor shall establish and maintain an effective quality program meeting the requirements of inspection system provisions for aeronautical and space system materials, parts, and services: NHB 5300.4 (1C), which is incorporated into the purchase order under quality clause "QC28", (SM646). This system shall extend, as a minimum to the selection of material sources, supplies, receipt, identification, storage, and issuance of materials and supplies that form part of this contract.
- B. The Contractor shall be responsible for flow-down of all and/or part of the appropriate section of NHB5300.4 (1C) to the sub-tiers to assure contractual quality requirements are maintained. Work performed by sub-tiers shall in no way relieve the Contractor of quality acceptance responsibility.

- C. The Contractor shall establish and maintain a quality organization with sufficient capability to fully implement the requirements of the statement of work and NHB5300.4 (1C) requirements. The quality organization shall include all management and supervisory actions considered essential to ensure that the quality of the contract work, including the necessary supervision, inspection, and test of all items of work, is in compliance with applicable drawings and specifications. The quality organization or its representative shall be an unencumbered independent function responsible for acceptance of all work and data deliverable requirements of the contract. The quality representative with primary responsibility for this contract shall have a minimum of five years of experience in related work.
- D. The Contractor shall maintain a documentation control system that provides continuous objective evidence of compliance with the requirements and inspection status control. The Contractor's planning and verification process shall be structured in a manner that allows specific in-process task and work segment buyoffs. The Acceptance Data package shall be compiled and maintained to reflect work completion. This will allow for ease of quality buyoff prior to acceptance testing and contract final buyoff and close out.

6.2.3 Government Inspection Requirements

- A. All workmanship shall be subject to inspection by NASA Quality Assurance representative at any and all times during the work and at any and all places where the work is being done. NASA shall have the right to reject defective workmanship or require its correction by the contractor. Rejected workmanship shall be satisfactorily corrected without additional cost to NASA.
- B. The contractor shall furnish all reasonable facilities, labor and materials for the safe and convenient inspection and testing that may be required by the NASA Quality Assurance Representative.
- C. The Government has the right to inspect any or all of the work included in this contract at the contractor's facility.
- D. The contractor shall identify critical hold points in his schedule at which time NASA can verify fabrication procedures and progress.

6.2.4 Acceptance Data Package

Throughout the contract, the contractor shall maintain inspection, fabrication, tests, and configuration documentation. One indexed and stapled copy and one electronic copy of the acceptance data package will be provided with each shipment to KSC.

The contractor's acceptance data package shall include the following applicable sections.

Title Page

Index Page

Section I - Shipper/Source Inspection Records

Section II - Notes/Comments

- Section III - Waivers/Deviations
- Section IV - Shortages, Unplanned/Deferred and Preplanned/Assigned Work
- Section V - Identification-As-Built Configuration
- Appendix - A. Contractor Inspection/Test Data Packs for each Post and Access Door included on the delivery:
 - 1) Surface Hardness Test Map
 - 2) Visual Inspection Data
 - 3) Magnetic Particle Inspection Data
 - 4) Pour/Drop/Heat #'s with Dates and Ladle Analysis Results
 - 5) Heat Treatment Lot #'s with Dates and Furnace Run Data (Time and Temperature Charts)
 - 6) Tempering Lot #'s with Dates and Furnace Run Data (Time and Temperature Charts)
 - 7) Quench type and temperature/rate of cooling
 - 8) Actual Weight of finished article
 - 9) Material Certifications
 - 10) Radiographic & Ultrasonic Tests, including film and reports, if applicable.
 - 11) Repair Records, if applicable.
- B. Contractor Inspection/Test Data Packs for destructive tests performed on the "test pour" and test blocks will be included in the deliveries that include the test item specimens:
 - 1) Radiography Test Data
 - 2) Cross Section Metallography Results
 - 3) Through Thickness Hardness Test Map
 - 4) Tensile Specimen Test Results
 - 5) Pour/Drop/Heat #'s with Dates and Ladle Analysis Results
 - 6) Heat Treatment Lot #'s with Dates and Furnace Run Data (Time and Temperature Charts)
 - 7) Tempering Lot #'s with Dates and Furnace Run Data (Time and Temperature Charts)
 - 8) Quench type and temperature/rate of cooling
 - 9) Actual Weight of finished article
 - 10) Material Certifications
 - 11) Radiographic Tests, including film and reports, if applicable.
 - 12) Repair Records, if applicable.

6.3 Acceptance of Work

When the work has been completed in accordance with the requirements of this contract, the contractor shall give NASA notice thereof in writing. After receipt of such notice, NASA shall determine whether the work has been completed in a manner satisfactory to NASA, and if so, will advise the contractor in writing of final acceptance thereof. If the work, or any portion thereof, is unsatisfactory, NASA shall so notify the contractor in writing and the contractor shall proceed to complete the work in a satisfactory manner, giving notice thereof as set forth in this clause.

7 REQUIRED SUBMITTALS

The contractor shall prepare and submit the following reports or data according to the frequency schedule listed below. Other non-recurring reports and data specified within this SOW shall be made available as required by the CO or his designated representative.

Report Name	Frequency
-Submittal Schedule (See 7.1)	15 days after award
-Work Progress Schedule (2 copies, See 4.3.1)	5 days after award
-Critical Hold Points (See 4.3.2 and 6.2.3D)	Pre-work Conference or 5 days after award
-Test Plan(s) (See 6.1.5)	15 days after award
-As-Built Drawings (See 5.3.2)	Final
-Material Compliance (See 6.1.1)	As Required
-Acceptance Data Package (See 6.2.4)	Incrementally, with each delivery and prior to contract closure
-Deviation and Waivers (See 5.3.1)	As Required

7.1 Schedule of Submittals

Within 15 calendar days after notice to proceed, the contractor shall provide the following schedule of submittals:

- A. A Gantt schedule of drawings and technical submittals required by the specifications and drawings. The schedule shall indicate the specification of drawing reference requiring the submittal; the material, item, or process for which

the submittal is required; identifying title of the submittal; the contractor's anticipated submission date and the approval need date.

- B. A separate Gantt schedule of other submittals required under the contract but not listed in this SOW. The schedule will indicate the contract requirement reference; the type or title of the submittal; the contractor's anticipated submission date and the approval need date (if approval is required).
- C. Submittals called for by the contract documents will be listed on one of the above schedules. If a submittal is called for but does not pertain to the contract work, the contractor shall include it in the applicable schedule and annotate it "N/A" with a brief explanation. Approval of the schedules by the CO or a designated representative does not relieve the contractor of supplying submittals required by the contract documents but which have been omitted from the schedule or marked "N/A".

7.2 NASA's Review Notations

The CO or a designated representative will review submittals and provide pertinent notation within 14 calendar days after date of submission. Submittals will be returned to the contractor with the following notations:

- A. Submittals marked "Approved" authorize the contractor to proceed with the work covered.
- B. Submittals marked "Approved As Noted" authorize the contractor to proceed with the work covered provided he takes no exception to the corrections. The notes shall be incorporated prior to submission of the final submittal.
- C. Submittals marked "Return For Correction" require the contractor to make the necessary corrections and revisions and to re-submit them for approval in the same routine as before, prior to proceeding with any of the work depicted by the submittal.
- D. Submittals marked "Not Approved" or "Disapproved" indicate noncompliance with the contract requirements and shall be re-submitted with appropriate changes.
- E. The contractor shall make corrections required by the CO or a designated representative. If the contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications notice shall be given to the CO or his designated representative. Approval of the submittals by the CO or a designated representative shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory.
- F. Failure to point out deviations may result in NASA requiring rejection and removal of such work at the contractor's expense.
- G. If changes are necessary to approved submittals, the contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change shall be accomplished until the changed submittals are approved.