SPECIAL CONTRACT REQUIREMENTS

FOR

NAVAJO DIVISION OF TRANPORTATION DEPARTMENT OF ROADS

N21 KAIBITO COCONINO COUNTY, ARIZONA





2014, edition

SPECIAL CONTRACT REQUIREMENTS FP-14, U.S. CUSTOMARY UNITS

All material under the Divisions of the "Standard Specifications for Construction of Roads and Bridges On Federal Highway Projects, FP-14, U.S. Customary Units," henceforth called FP-14, published in book form by the U.S. Department of Transportation, Federal Highway Administration, shall apply to this contract as revised below:

DIVISION 100 GENERAL REQUIREMENTS

SECTION 101 – TERMS, FORMAT, AND DEFINITIONS

101.03 Abbreviations.

ADD:

(a) Acronyms.

Page 2, after "ANSI" add the following: "AO – Awarding Official"

Page 2, after "ANSI" add the following: "AOR – Awarding Officials Representative"

Page 3, after "NIST" add the following: "NR – Navajo Road"

Page 3, after "NIST" add the following: "NDOT – Navajo Division of Transportation"

DELETE:

(e) Slope notation (vertical:horizontal)

And INSERT:

(e) U.S. Customary units slope notation (horizontal:vertical). Express the slope as a ratio of a number of units horizontal to one unit vertical.

SECTION 103 – SCOPE OF WORK

103.05 Partnering.

DELETE the subsection in its entirety.

And **INSERT:** There will be Pre-Construction meeting and a minimum of one Partnering meeting during the project.

SECTION 104 – CONTROL OF WORK

104.01 Authority of the Contracting Officer (CO).

ADD:

The Contracting Officer's Representative (COR) may act for the Contracting Officer (CO) in administering his/her contract, but he/she shall not be empowered to award, agree to, or execute any contract modification thereto, or in any way to obligate the government, or to make a final decision on any matter which would be subject to appeal under the disputes clause of the contract. The Contracting Officer is Ardaniel Begay, Principal Contracting Officer and the Contracting Representatives are Joseph Peterman, Department Manager and Priscilla Lee, Senior Programs & Projects Specialist.

SECTION 108 – PROSECUTION AND PROGRESS

108.01 Commencement, Prosecution, and Completion of Work.

DELETE In the second paragraph, second sentence:

"Seven days before the preconstruction conference,"

and **INSERT** the following:

"Ten days after the award of the Contract,"

108.03 Determination and Extension of Contract Time.

ADD:

Stop work orders on some but not all items will be considered "partial suspension". Stop work orders on all items will be considered "total suspension".

When the CO, in accordance with **Subsection 108.05(a)**, orders the total suspension of the performance of work for one or more calendar days, the number of days from the effective date of the suspension until the effective date of the CO's order to resume operations, will not be included in the count of the contract time.

During periods of partial suspension of the work in accordance with **Subsection 108.05(a)**, the total number of calendar days to be charged as contract time, shall be computed by multiplying the number of calendar days of the original contract time by the ratio of the amount earned during the period of partial suspension to the original contract amount.

In no case shall the number of calendar days to be charged as contract time for a period of partial suspension (computed as described in the previous paragraph) exceed the total time of the effective dates of the partial suspension issued by the CO.

For the purpose of computing the number of calendar days to be charged, the amount earned during a period of partial suspension shall exclude any allowance for materials not incorporated in the work but shall include any allowance made for the roadside production of aggregate and other work performed at the site.

Reasonably predictable weather conditions are not a valid reason for adjustment of contract time.

108.04 Failure to Complete Work on Time.

DELETE the fourth paragraph which begins with "Liquidated damages in an amount equal to 20 percent......"

108.05 Stop Order. (Suspension of Work)

DELETE In the first line of the last paragraph, the words:

"time or"

N21 Kaibito

ADD the following subsection:

108.06 <u>Labor Preference</u>

Contractor shall make a good faith effort to utilize qualified local labor force participation for elements of work that can be subcontracted for this contract.

SECTION 109 – MEASUREMENT AND PAYMENT 109.02 Measurement Terms and Definitions ADD:

(r) Contingent sum. Perform the work only when authorized by written order. The work will be measured and paid for at agreed unit prices, lump sum prices or force account as established in the order authorizing the work. When the unit is designated "Lump Sum", the quantity is designated as "1".

109.06 Pricing of Adjustments.(b) Postwork pricing.

- (1) Direct costs.
 - (c) Equipment.

DELETE the paragraphs under (1), (2), and (3) and **INSERT**:

For any machinery or special equipment (other than small tools), including fuel and lubricants, plus transportation costs, the use of which has been authorized by the COR including the use for hauling of materials and equipment, the Contractor shall receive the hourly equipment rental rates in effect at the time force account work is authorized. These hourly rental rates shall be determined by using the monthly rental rate taken from the Rental Rate Blue Book for construction equipment divided by 176. The Rental Rate Blue Book for Construction Equipment is published by Equipment Guide-Book Company, Palo Alto, California. Operating costs in accordance with the rates listed in the Rental Rate Blue Book will be allowed for each and every hour the machinery or equipment is actually operated. Rates not provided by the Rental Rate Blue Book must be approved by the CO prior to the start of any Force Account work on which the equipment will be used. No adjustment percentage, as shown on the maps in the Rental Rate Blue Book shall be used with the rental rate because of a predominate area condition.

If the machinery or equipment is required to be at the work site on standby, but is not operating, the Contractor may be compensated at the hourly rate exclusive of operating costs. The duration of standby time is to be determined when standby time is approved.

When the equipment is to be used on multiple shifts, a charge of 50 percent of the base rental rate plus operating service rate for each hour of additional shifts will apply. The number of hours for each shift shall be agreed upon by the Contractor and COR prior to starting of work.

"Move-in" and Move-out" charges required by the piece of equipment not available on the job will be included as part of the extra work at actual transportation cost, if the particular piece of equipment is not moved onto the specific job under its own power. Total hourly rate, without operator, shall be allowed for equipment moved to the site of the work under its own power. This shall apply to equipment moved within the limits of the project. "Move-in" charges will be paid only once for any particular piece of equipment except in unusual circumstances which must be justified in writing and agreed to by the COR.

Whenever the "Manufacturer's Rated Capacity" falls between those shown in this book, the closest will be used. Do not interpolate for rates in between.

All rates shall be agreed upon in writing before any work is begun. No percentages shall be added to this amount.

(2) Overhead.

DELETE the first paragraph and **INSERT**:

The overhead factor shall be applied to the direct costs. The Contractor shall be limited to 10% overhead when he and/or his subcontractors perform work for that portion performed with their respective forces.

(3) Profit.

DELETE the first paragraph.

109.08 Progress Payments.

DELETE (a), (b), (c), (d) and (e) and **INSERT**:

Progress payments will be made on the first of each month as the work proceeds except no payment will be made for less than \$2,500. Progress payments will be prepared by the COR and made by the CO in full without retention when progress is considered satisfactory and the work may reasonably be expected to be completed within the contract time, progress payments will be withheld if the Contractor's Construction Schedule (CPM) is not current and accepted by the Government.

Noncompliance with or the failure to provide timely submittal of contract requirements will be justification of withholding of progress payments or portions thereof.

(f) Partial payments.

ADD:

Partial Payments for Material on Hand

Materials listed below may be considered for partial payment when the materials are delivered and stockpiled or produced on the project site or on another site approved by the COR. Such partial payment will be made at the contract unit price for the quantity of material on hand and multiplied by the Partial Payment Factor.

N21 Kaibito

Type of Material	Partial Payment Factor
Aggregate Subbase	0.35
Aggregate Base	0.35
Mineral Aggregate	0.35
Cover Aggregate	0.35

The cost of hauling the stockpiled material listed above to the project site may be included in the partial payment at a rate of \$0.15 per ton per mile.

Cover aggregate will be measured by the Ton in the hauling vehicle immediately prior to placement on the roadway surface to be treated.

DELETE the last paragraph of this subsection beginning with "The quantity paid . . ." and **INSERT** the following:

109.10 Force Account Work. Payment for work performed on a force account basis will be made as follows:

a) Labor.

- (1) Wages. Before beginning force account work, agree to a force account wage rate, which includes fringe benefits, for each labor classification and foreman. The wage rates shall not be in excess of the rates paid for comparable work on the project. All labor and foremen employed on the force account will be paid at the agreed wage rates.
- **(2) Payroll costs.** All payroll costs applicable to the wages paid in (1) above will be paid at their actual documented cost. Payroll costs include such costs as FICA, FUTA, worker's compensation, insurance, and tax levies. If the actual payroll costs cannot be documented, a fixed percentage of 25% will be added to the wages to cover such costs.

The Contractor shall submit a certified cost breakdown to the CO at the preconstruction conference of how the actual payroll cost percentages for FICA, FUTA, worker's compensation, insurance, tax levies, etc., were calculated before beginning work.

- **(3) Subsistence.** Subsistence and/or travel costs paid for labor and foremen will be paid at their actual documented cost.
- **(4) Overhead and profit.** An overhead factor of 10% will be applied to the direct costs determined in (1), (2), and (3) above. A profit factor of 10% will then be applied to the direct costs plus overhead costs.
- **b) Material.** The actual invoice cost of material delivered to the work and accepted will be paid. Transportation costs, exclusive of equipment costs paid in **c)** below, will also be paid as part of the cost of material.

A 10% overhead factor followed by a 10% profit factor will be applied to the cost of material.

c) Equipment.

- (1) Contractor owned equipment. Equipment rates for all equipment and machinery (other than small tools) owned by the Contractor and/or subcontractor and authorized for use will be determined according to Subsection 109.06(a)(3) as amended.
- **(2) Rented equipment.** When a piece of equipment is rented or leased exclusively for the force account work, the actual invoice amount plus operating expenses will be paid provided such rates are reasonably in line with prevailing market rates for such equipment.
- **(3) Owner operated equipment.** Payment for owner-operated equipment used on force account work will be based on the actual paid invoice plus a markup of 5%.
- **(4) Transportation costs.** Transportation costs may be in the form of equipment hours (if the equipment is moved under its own power), common carrier invoice amounts, or equipment and labor hours (if moved by the Contractor's and/or subcontractor's own forces). Expenses for moving each piece of equipment to and from the force account work site will be paid provided:
 - a) Transportation costs are not included in any other invoice.
 - b) The equipment is obtained from the nearest approved source.
 - c) The return charges do not exceed the delivery charges.
 - d) The equipment is not used at the force account work site on other contract work immediately before, after, or during the force account work.
- **(5) Overhead and Profit.** A 10% overhead factor followed by a 10% profit factor will be allowed for all equipment costs as determined in (2) and (4) above.
- **d) Miscellaneous.** No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is provided.
- e) Subcontracting. Invoiced amounts for force account work performed by subcontractors are limited by (a) through (d) above. Payment will be made for the approved subcontractor invoice plus a markup of 5% for administrative costs in connection with the subcontract work.
- **f) Records and statements.** Maintain a daily record of force account work on forms provided or approved. Include the following detail:
 - (1) Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. At the end of the pay period, support this information with copies of the certified payroll.

- (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of equipment.
- (3) Quantities of material, prices, and extensions.
- (4) Transportation of material.

Attach supporting invoices for material used and transportation charges.

If material used on the force account work is not specifically purchased for such work but is taken from the Contractor's stock, furnish an affidavit in lieu of an invoice certifying that the material was taken from stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Compare the records of the cost. The Contractor and the CO shall sign the record and each party retain a copy.

g) Payment. No payment will be made for work performed on a force account basis until the signed records and statements required in **(f)** have been prepared.

The amount paid will be based on these records and statements. The additional payments for overhead and markup above will constitute full compensation for all items of expense not specifically designated. The total payment, made as provided above, constitutes full compensation for such work. Payment will be made with the regular progress payments.

DIVISION 150 – PROJECT REQUIREMENTS

SECTION 151 – MOBILIZATION

151.03 Payment

DELETE the text under this subsection and **INSERT**:

One third of the mobilization lump sum, not to exceed 5% of the original contract amount, will be paid when the COR has determined that a significant amount of equipment has been mobilized to the project site which will be used to perform portions of the contract work.

The remaining payment(s) of mobilization will be determined by the percentage of work completed for the contract up to 90 percent of the mobilization lump sum. The remaining balance shall be paid after final acceptance of the project.

Payment will be made under:

Pay Item Pay Unit

15101-0000 Mobilization LS

SECTION 152 – CONSTRUCTION SURVEY AND STAKING

152.04 General.

(a) Personnel

ADD:

The person responsible for the surveying shall be a Registered Land Surveyor (RLS) in the state where the project is located and be proficient in construction surveying and have a sound knowledge of the specifications as they relate to construction staking. The crew chief shall be NICET Certified Level III or a RLS and shall be capable of supervising a survey crew, calculating grades, horizontal and vertical curves, and all other work necessary to complete the construction staking. The crew chief shall be on the project whenever surveying and/or staking is in progress. A minimum of 50 percent of the survey crew shall be NICET Certified Level II or possess at least a Land Surveyor-In-Training certificate.

152.05 Survey and Staking Requirements.

(a) Control points.

ADD:

Reference all control points with 5/8" diameter x 24" rebar with aluminum or plastic caps.

(c) Slope stakes and references.

ADD:

The Contractor shall set stakes on 10 foot stations on both sides of centerline. Stakes shall be set at right angles to roadway centerlines. Stakes for roadway and drainage structures shall be set and marked as shown on the project plans.

All slope stakes shall be sprayed with one coat of fluorescent red, pink or orange paint prior to marking the slope stake data on the slope stake.

(f) Grade finishing stakes.

ADD:

The Contractor shall set blue-top hubs or nails, on centerline and shoulders for subgrade, special subbase and aggregate base course. Vertical tolerance for these hubs shall be \pm 0.03 feet (see Table 152-1).

(j) Borrow and waste sites.

ADD:

No measurements shall be performed until the site has been cleared and grubbed.

152.07 Measurement.

DELETE the text under this subsection and **INSERT**:

Construction survey and staking will be measured by the lump sum.

152.08 Payment.

ADD:

Payment will be made under:

Pay Item Pay Unit

15201-0000 Construction Survey and Staking

LS

SECTION 153 – CONTRACTOR QUALITY CONTROL

153.03 Quality Control Plan (QCP).

DELETE the second sentence and **INSERT**:

The Contractor's Quality Control Plan must be stamped by a Civil Engineer who is registered in the state where the work is to be performed.

153.09 Measurement and Payment

DELETE this subsection and **INSERT**:

No measurement shall be made for Contractor's Quality Control Plan. No payments for Quality Control Plan shall be made.

SECTION 154 – CONTRACTOR SAMPLING AND TESTING 154.02 General

ADD:

General Requirements, Independent Testing Laboratory.

Sampling and testing on NDOT road construction projects shall be performed by an Independent Testing Laboratory. The Independent Testing Laboratory and its technicians must be experienced and proficient in the fields for which the work is to be performed.

To receive NDOT approval the Independent Testing Laboratory shall meet the following requirements:

a) Programs Participation.

The Independent Testing Laboratory shall participate in the AASHTO Materials Reference Laboratory (AMRL) and/or Cement and Concrete Reference Laboratory (CCRL) laboratory inspection program as appropriate for the testing being performed. A copy of the current Certificate of Accreditation shall be submitted with their Quality Control Plan. Copies of all applications, correspondence, reports and corrective actions shall be submitted to the Regional Road Engineer as requested.

b) Documentation.

- 1. The Independent Testing Laboratory shall provide documentation describing their organization, organizational chart, personnel responsibility, authority, education, training, experience and certifications; inventory of facilities and equipment used for testing (manufacturer, model and serial number, calibration and tolerances); written laboratory procedural manual; methods used for recording, processing and reporting data; inventory of reference material, standards and test methods. This documentation shall be updated annually, or more frequently when substantial changes occur.
- 1. The Independent Testing Laboratory shall provide documentation outlining their own Quality Control, Quality Assurance and Equipment Calibration programs for their main lab and any satellite or project labs.
- 3. It shall be the responsibility of the Contractor to promptly provide the documents from the Independent Testing Laboratory necessary to show existing and continuing compliance with the requirements outlined herein.

c) Personnel.

1. The services of the Independent Testing Laboratory shall be under the direction of a full-time employee who is a licensed engineer in the State the project is located. He/she shall have a minimum of (5) five years of professional engineering experience in laboratory and field testing of the specific materials such as soils, Portland cement and asphalt concrete to be incorporated into the project which he/she directs. The Engineer shall review the work in the field at the project site on a bi-weekly basis, or more frequently, if required.

11 of 23

- 2. The supervisors of laboratory and/or field technicians shall have at least three years experience in inspection and/or testing of materials involved in the related area of construction. The field supervisors of the laboratory and/or field technicians shall be certified by TTQP (Technicians Training and Qualifications Program) through WAQTC (Western Alliance of Quality Transportation Construction) or Arizona Technical Testing Institute (ATTI) in the appropriate Construction Materials Testing field or meet one of the following requirements:
 - (aa) Be a licensed Engineer by the State in which the project is located with one year of highway experience acceptable to the NDOT.
 - (bb) Be licensed as an Engineer-In-Training by the State in which the project is located with two years of experience acceptable to the NDOT.
 - (cc) Hold a Bachelor of Science Degree in Civil Engineering or an Associate Degree in Civil Engineering Technology with three years of highway experience acceptable to the NDOT.
- 3. Supervisory Technicians performing the actual testing and/or inspection shall be TTQP or ATTI certified in the appropriate Construction Materials Testing field or meet the requirements of 2 (a)-(c).

d) Equipment.

- 1. Testing machines and equipment must be calibrated annually or more frequently by impartial means using devices of accuracy traceable to the National Bureau of Standards.
- 2. The Independent Testing Laboratory will be open to inspection of equipment and procedures by the NDOT or its representatives.

e) Other Work.

In fields other than those covered by the referenced AASHTO or ASTM Standards, the Independent Testing Laboratory shall accept only those assignments which it is able to perform competently by use of its own personnel and equipment. Any work to be subcontracted must be performed by laboratories meeting the same criteria. If any work is subcontracted, the subcontractor shall submit documentation in accordance with paragraph 154.01 (b), to the Contracting Officer for approval 21 calendar days prior to the subcontractor commencing work.

f) Preconstruction Meeting.

The Independent Testing Laboratory shall be present during the technical portion of the preconstruction meeting. Supervisory personnel and the lead field technician shall be in attendance at this meeting.

154.03 Sampling.

DELETE:

Sample and split samples according to AASHTO or other acceptable procedures.

And INSERT:

Acceptance samples shall be split into 3 samples according to AASHTO or other acceptable procedures designated by the CO. One of the acceptance sample splits shall be tested by the Independent Testing Laboratory and the other two of the acceptance split sample shall become property of the Navajo DOT. One of the splits shall be marked "NDOT", the third shall be marked "Referee". Samples shall be stored in canvas, plastic or metal containers. Paper containers will not be acceptable. All acceptance sample splits shall be delivered to the Navajo DOT compound by the Contractor on a weekly basis.

ADD:

(k) Sample Identification System.

Samples for testing shall be consecutively numbered throughout the project. All tests shall be prefixed as shown in the following examples (for specific tests pertaining to this Project refer to the applicable Section):

1.0 Density Tests.

Prefix	Description
OGD	Original ground density
ED	Embankment density
DD	Dike density
SGD	Finished Subgrade density
PBFD	Pipe backfill density
PBD	Pipe bedding density
SBD	Structural backfill density
SSBD	Select subbase density
ABD	Aggregate base density
ACD	Asphalt Concrete density

Any retests of the above shall be suffixed with alpha letters, e.g., OGD-1 (failed), OGD-1A (failed), OGD-1B (passed).

Embankment tests must indicate elevation of test, either actual elevation from subgrade or distance in feet above OG. Backfill tests must indicate which lift is being tested, 1st, 2nd, etc., to an elevation 12 inches above a structure.

Each item listed above shall be presented to the COR on separate test report sheets.

2.0 Maximum Density-Optimum Moisture Tests.

Prefix	Description
OGMD	Original ground maximum density-optimum
EMD	Embankment maximum density-optimum moisture
ABMD	Aggregate base maximum density-optimum moisture

Moisture density curves for all materials shall be required to have as a minimum four (4) points, two (2) on each side of optimum. Each curve will be identified with a unique laboratory number, material source and usage.

3.0 Sieve Analysis P.I. & Additional Aggregate Tests.

Prefix	Description
ABS	Aggregate base sieve analysis
SSBS	Select subbase sieve analysis
SCS	Structural concrete aggregate sieve analysis
PCS	Prestressed concrete aggregate sieve analysis
CCS	Cover coat aggregate sieve analysis
MAS	Mineral aggregate sieve analysis

P.I. and additional aggregate test results shall be shown on same form as sieve analysis.

4.0 Concrete Tests.

Prefix	Description
SC	Structural concrete sieve analysis
PC	Prestressed concrete sieve analysis

5.0 Asphalt Concrete Tests.

Prefix	Description
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AC-1, 2, 3,	Test performed on asphalt concrete mixture to include: Extraction, moisture and gradation for each 500 tons (455 Mt). 1st a.m. & p.m. sample each day – stability & flow, air voids, VMA, unit weight, rice gravity.
SE-1, 2, 3,	Sand Equivalent – One sample each day
TSR-1, 2,	Tensile Strength Ratio – One sample each day

In addition to test results, each data unit shall contain; date, time sampled and load number of material represented by test results.

6.0 Paving and Liquid Asphalt Tests.

Prefix	Description
PA	Paving grade asphalt
LA	Liquid asphalt
EA	Emulsified asphalt

154.04 Testing.

ADD:

The acceptance split samples shall be tested by the Independent Testing Laboratory. The CO reserves the right to test the second split acceptance samples marked "BIA" and if the results do not conform to those of the Contractor's test results, then the basis of payment will be on the CO tests. If the Contractor elects to contest the test results of the CO, then a mutually agreed upon "Testing Lab" shall be selected to perform the tests on the third acceptance split samples marked "Referee".

The Contractor and the CO shall abide by the "Testing Lab's" results. The Contractor shall bear all costs in running the split samples by the "Testing Lab".

Results of tests shall be in accordance with AASHTO or industry standards except for the following:

- -- Sieve analysis nearest whole %, except the No. 200 sieve which shall be reported to the nearest 0.1%.
- -- Unit weight nearest 0.1 lb/ft³.
- -- Specific gravity nearest .001unit.
- All compaction tests nearest 0.1%.

-- Compression tests – nearest 10 psi.

The original of all test reports shall be submitted to the COR in accordance with the required time frames.

One copy of all test reports shall be submitted to the Contractor's Superintendent in accordance with the required time frames. If the test results are not submitted within the required time frames the Contractor shall suspend work on those items of work until the test results are current.

Indexed binders for testing shall be prepared and submitted to the COR for approval at the preconstruction conference. All test results including summaries shall be incorporated into the binder on a daily basis. The binder shall be kept at the COR's field office.

In addition to the submittal of test reports in accordance with the required time frame, any reports submitted to the COR which are incomplete, illegible or reported on the wrong form will be returned for correction and a **\$50.00 per day charge** will be assessed until they are resubmitted correctly.

154.05 Records.

ADD:

Reporting Test Results

Time constraints for applicable tests and reports submitted to the COR are as follows:

Proctors – All Materials.	Reports to COR before taking density tests.
Density Tests – All Materials.	Results given to COR at completion of tests.
	Report to COR the following work day.
All aggregate quality tests such as L.A.	Reports to COR one week prior to hauling.
Abrasion, Sulphate, etc.	
Special subbase and aggregate base sieve	Reports to COR one day after samples have
analysis and PI.	been taken.

154.07 Measurement.

DELETE:

Measure the Section 154 pay items listed in the bid schedule according to Subsection 109.02.

And INSERT:

Contractor sampling and testing will not be measured directly but will be considered a subsidiary obligation of the contract.

154.08 Payment.

DELETE:

The accepted quantities will be paid at the contract price per unit of measurement for the Section 154 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for Contractor testing lump sum will be paid as follows:

- (a) 25 percent of the pay item amount, not to exceed 0.5 percent of the original contract amount, will be paid after the testing facilities are in place, qualified sampling and testing personnel are identified, and the work being tested has started.
- **(b)** Payment for the remaining portion of the pay item amount will be prorated based on the total work completed in Section 154.

Payment may be retained if Government verification testing does not validate the Contractor testing or if it is determined that documentation of sampling and testing does not meet requirements.

And INSERT:

Payment will be made under:

Pay Item	Pay Unit
15401-0000 Contractor Testing	LS

SECTION 155 – SCHEDULES FOR CONSTRUCTION CONTRACTS 155.03 General.

DELETE, in the third paragraph:

at least 7 days before the preconstruction conference,

and INSERT:

10 days after award of the contract.

155.06 Schedule Updates. ADD:

Any schedule update showing a completion date beyond the contract time shall be accompanied with a request for a time extension in accordance with **Subsection 108.03**.

155.08 Measurement.

DELETE this subsection and **INSERT**:

The Construction schedule will not be measured directly for payment but will be considered a subsidiary obligation of the Contract.

SECTION 156 – PUBLIC TRAFFIC

156.04 Accommodating Traffic During Work.

ADD:

During construction, the Contractor shall allow motorist access at all times, either on N21 or by detour. Signs warning drivers of construction zone shall be placed at the beginning and end of construction limits prior to the start of any construction work.

The Traffic Control Plan must be submitted to the CO for acceptance, accepted and implemented before any other work can commence at the project site. Prior to the commencement of work and on a weekly basis, the Contractor shall inform the Navajo Division of Transportation of the traffic restrictions.

The contractor shall maintain at least one lane of traffic at all times, other than stabilizer curing times. During curing times the road shall be closed to all traffic and a detour road shall be designated. The community (residents, schools, emergency agencies) shall be notified 7 days prior to road closure. It is estimated that a minimum 24 hour cure will be required. If rainfall during curing the closure time may need to be extended. The road shall not be open to the public until the surface coarse curing is substantially complete, per supplier recommendations.

156.07 Limitations on Construction Operations. ADD:

- (I) Minimum of one lane of traffic shall be open daily.
- (m) Flaggers shall be on-duty during construction hours.
- (n) No work or access restrictions are allowed during the following periods:
 - Federal holidays
 - The Fridays prior to Memorial Day and Labor Day

ADD the following section:

SECTION 159 – NAVAJO NATION SALES TAX 159.01 Description.

The project is located on the Navajo Nation and is subject to the laws and regulations of the Navajo Nation. Contractors shall make themselves aware of any labor requirements, taxes, fees, licenses, permits or conditions that may be imposed by the Navajo Nation on work performed in the area.

TAX:

A 5% Sales tax will be required on all invoices from the contractor. The Navajo Division of Transportation Office will withhold the 5% sales tax and forward the amount to the Navajo Tribal Financial Office.

159.02 Acceptance.

Acceptance shall be based on an invoice from the contractor and an invoice from the appropriate Tribal Administration Office on the tax.

159.03 Measurement.

Measurement of the Tribal Tax shall be lump sum.

159.04 Payment.

Payment shall be made under:

Pay Item	Pay Unit
15901-0000 Tribal Tax (5.0%)	LS

DIVISION 200 – EARTHWORK

SECTION 204 – EXCAVATION AND EMBANKMENT

204.10 Compaction.

(b) Earth Embankment.

In the last paragraph, second sentence, delete "or other approved test procedures" and insert ", direct transmission method".

204.13(d) Finishing.

ADD:

Blue-top hubs, 2"x 2" x 6", shall be set on 100 foot stations along tangents and shall be set on 50 foot increments along curves and transitions. Hubs shall be set on centerline and roadway shoulders.

Vertical tolerance for these hubs will be ± 0.03 feet.

204.14 Disposal of Unsuitable or Excess Material.

DELETE the first sentence and **INSERT**:

All unsuitable or excess material as well as sediment removed from erosion control measures shall be hauled to an approved public land fill as directed by the COR.

It is the intent of this project to balance the earthwork, so waste and/or import are not required. The contractor shall inform the CO of any imbalance and corrective measures may be taken. Corrective measures would include roadway profile revisions, adjustment in ditch widths, or side slope grade adjustments. The contractor shall propose corrective measures as deemed appropriate.

204.15 Acceptance.

ADD:

Compaction tests shall be performed on the following:

- 1. Compacted embankment on each 6 inch lift or each 500 cubic yards whichever is less.
- **2.** Compacted original ground in areas where embankment height is less than 3 feet. Density tests shall be taken for every 500 feet of roadway.
- **3.** Compacted backfill for pipe culverts on each 6 inch lift on each side of culvert. For pipe (CMP) extensions located outside the traveled way three (3) density tests shall be taken located at the bottom, center, and top of the pipe.

In **Table 204-1** for Unclassified borrow, Select borrow and Earth embankment under "Sampling Frequency" for "Compaction", **delete** "1 for each 3500 square yards" and insert "1 for each 500 cubic yards".

In **Table 204-1** for Unclassified borrow, Select borrow and Earth embankment under "Test Methods Specifications" for "Compaction", **delete** "or other approved procedures" and insert "direct transmission method".

SECTION 213 – SUBGRADE STABILIZATION

213.01 Description

ADD:

For purposes of this project, surface stabilization shall be known as SUBGRADE STABILIZATION.

This project requires the application of a subgrade stabilization additive. The stabilizer shall be applied per the manufactures recommendations for a 4" penetration depth. The application shall include a topical application after the surface is bladed and compacted. The contractor shall provide technical data about the product selected and assures the product is comparable to the onsite road base material.

The product shall be in accordance with Stabilization Selection Guide for Aggregate and Native Surface Low-Volume Roads, US Forest Service, March 2009. Recent soil testing shows silty sand and clayey sand soil types are present within the project.

Considered products for **silty sand** include Synthetic Polymers (SoilTac, Soil Sement) and Tree Resin Emulsions (Eco-Pave, PineBind); **clayey sand** soil types require Electrolyte Emulsions (RoadBond EN-1) or other products as approved by Navajo Division of Transportation.

Contractor shall consult with manufacturer for application rates and methods.

213.12 Payment

ADD:

Measurement will be made per finished roadway surface width as noted in the plans. Payment will be made under:

Pay Item	Pay Unit
30110-1000 Subgrade Stabilization, 4" depth	SY

DIVISION 300 – AGGREGATE AND BASE COURSES

SECTION 303 – ROADWAY RECONDITIONING 303.10 Payment. ADD:

Measurement will be made per finished roadway and ditch prism as noted in the plans. Payment will be made under:

Pay Item		Pay Unit
30301-6000	Roadway Reconditioning	SY

SECTION 635 – TEMPORARY TRAFFIC CONTROL

635.01 Description

DELETE the following from the first sentence:

as ordered

635.04 General.

ADD:

Three copies of a traffic control plan that is in accordance with the MUTCD will be submitted for each item impacting traffic 10 days after award of this contract for review. The plan will include the maximum spacing distance that the Contractor is proposing to use when placing channeling devices. If the traffic control plan does not conform with the MUTCD requirements because the Contractor changed his operations and/or special or hazardous conditions arise, the COR shall direct the Contractor to revise his plan and temporary traffic control devices and services immediately to conform with the MUTCD.

The contractor shall maintain at least one lane of traffic at all times, other than stabilizer curing times. During curing times the road shall be closed to all traffic and a detour road shall be designated. The community (residents, schools, emergency agencies) shall be notified 7 days prior to road closure. It is estimated that a minimum 24 hour cure will be required. If rainfall during curing the closure time may need to be extended. The road shall not be open to the public until the surface coarse curing is substantially complete, per supplier recommendations.

Flaggers shall be on duty during construction hours for any roadways reduced to one lane of traffic.

During construction, the contractor shall allow tourist and residential access at all times. Signs warning drivers of construction zone shall be placed at the beginning and end of construction limits prior to the start of any construction work.

635.24 Measurement.

DELETE this subsection and **INSERT**:

Temporary traffic control will be measured by the lump sum and no measurement for payment will be made for furnishing, installing, and maintaining all traffic control devices and services required for the control and protection of traffic.

635.25 Payment.

DELETE:

(b) An additional 25 percent of the pay item amount will be paid following completion of 50 percent of the contract amount.

ADD:

Payment will be made under:

Pay Item Pay Unit
63501-0000 Temporary Traffic Control LS

--- END OF SPECIAL CONTRACT REQUIREMENTS ---