Contract Documents for the Construction of:

CONSTRUCTION OF A ONE – ACRE SOLAR ARRAY PHASE 1

PROJECT #2025-03

October 15, 2025

Project Termini: 2001 Futurity Drive Sunland Park, NM 88063

Project Control Number : E100480, District 1

David Armijo

Executive Director, SCRTD

RBM ENGINEERING, INC.

Las Cruces, NM 1065 S. Main Bldg. D Suite A 88005

Engineer of Record: Bryan R. Morris, P.E.

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SECTION 1

Addenda

Addendum No. 1	Issue date
Addendum No. 2	Issue date
Addendum No. 3	Issue date

(SCRTD WILL INSERT ADDENDAS IF ISSUED BEFORE CONTRACT EXECUTION)

SECTION 2

Advertisement and Bidding Instructions

1. INTRODUCTION

The South Central Regional Transit District (SCRTD) invites qualified NMDOT prequalified Contractors and Subcontractors and qualified solar energy subcontractors to submit BIDs for the procurement, construction, and commissioning of a one-acre solar photovoltaic (PV) array at 2001 Futurity Drive in Sunland Park, New Mexico. The proposed array will support the district's goal of increasing renewable energy usage and reducing carbon emissions. The Solar Array will support the electric-powered bus fleet operating from the SCRTD Bus Operations, Maintenance, and Training Facility. The district will reserve up to two acres for a Solar Array. The one-acre installation will be phase I, with expansion of the site expected within the next two years.

2. PROJECT OVERVIEW

- **Project Name:** One-Acre Solar Array Construction Phase I
- **Location:** 2001 Futurity Drive, Sunland Park, New Mexico
- **Project Type:** Grid-connected solar PV system, with battery storage
- **Funding Source:** Federal and State Grants

3. SCOPE OF WORK

The scope of work includes, but is not limited to, the following:

- **Site Assessment:** Use the design work provided with a detailed site assessment to determine optimal layout and design.
- **Shop Drawing Layouts:** Provide shop drawing layouts for the solar array, including all necessary structural, electrical, and mechanical aspects.
- **Permitting:** Obtain all necessary permits and approvals from local, state, and federal agencies.
- **Procurement:** Procure all necessary materials and equipment to construct the solar array.
- **Construction:** Complete all construction activities, including land preparation, installation of solar panels, inverters, batteries, concrete pads, wiring, mounting systems, and other associated infrastructure. Make modifications to the existing electrical mains and metering. Install new metering for the PV systems.
- **Grid Connection:** Coordinate with El Paso Electric to connect the solar array to the electrical grid.
- **El Paso Electric Distributed Generation Application:** The Contractor shall submit an application to El Paso Electric for Solar System A and for Solar system B. The contractor shall make application for the Interconnection of facilities greater than 10 KW and less than 100 KW, or Interconnection of facilities greater than 100 kw and up to 10 MW as appropriate. Each application shall include calculations, equipment cutsheets, Single Line Diagram, etc as called for on the applications. The Contractor shall respond to all EPE review comments made to the permit applications. Contractors shall obtain EPE inspection and system final approval.
- **Commissioning:** Conduct all necessary testing and commissioning activities to ensure the solar array is fully operational and meets all performance specifications.
- **Operation and Maintenance (O&M) Plan:** Provide a detailed O&M plan for the solar array.

4. BID REQUIREMENTS

BIDs should include the following information:

- **Executive Summary:** Brief overview of the BID.
- **Company Profile:** Background information on the company, including relevant experience and qualifications.
- **Technical BID:** Detailed description of the proposed approach to the project and construction plans.
- **References:** The Solar Subcontractor information for at least three references from similar projects.
- **Compliance:** Statement of compliance with all local, state, and federal regulations.

5. SUBMISSION INSTRUCTIONS

SOLICITATION SCHEDULE

EVENT	DATE AND TIME
Invitation for Bids Issued	October 15, 2025
Virtual Mandatory Pre-Bid Conference Call	October 22, 2025
Deadline to Submit Questions	October 27, 2025
Written response to questions	October 29, 2025
Bids Due Date	November 5, 2025
Recommend Contract Award to Board Notice	November 12, 2025
Project Award Date	November 13, 2025
Substantial Completion Date	March 16, 2026
Completion of Punchlist Items	March 30, 2026
Project Closeout Date	April 3, 2026
Final End Date	April 10, 2026

Bids must be submitted by November 5, 2025, to:

Attn: Rosa Isela Talamantes, Chief Procurement Officer,
South Central Regional Transit District
2001 Futurity Drive, Sunland Park, New Mexico 88063
Email: rtalamantes@scrtd.org

Topic: Solar Array Virtual Mandatory Pre-BID Meeting
Time: October 22, 2025 10:00 AM Mountain Time (US and Canada)

Join Zoom Meeting
https://us06web.zoom.us/j/87592156553?pwd=MLLWVYkUcH9Gbub73w0hArNCGz86bs.1

Meeting ID: 875 9215 6553
Passcode: 752259

One tap mobile
+13462487799,,87592156553#,,,,*752259# US (Houston)
+16694449171,,87592156553#,,,,*752259# US

Dial by your location
- +1 346 248 7799 US (Houston)
- +1 719 359 4580 US
- +1 253 205 0468 US
- +1 301 715 8592 US (Washington DC)
- +1 309 205 3325 US
- +1 360 209 5623 US
- +1 507 473 4847 US
- +1 646 558 8656 US (New York)
- +1 689 278 1000 US
- +1 669 444 9171 US
- +1 720 707 2699 US (Denver)
- +1 253 215 8782 US (Tacoma)
- +1 305 224 1968 US
- +1 312 626 6799 US (Chicago)
- +1 386 347 5053 US
- +1 564 217 2000 US
- +1 646 931 3860 US

Meeting ID: 875 9215 6553
Passcode: 752259

Find your local number: https://us06web.zoom.us/u/kdosaWEiCe

6. CONFIDENTIALITY

The Contractor agrees to keep all information, documentation, and materials related to the project confidential and shall not disclose such information to third parties without the Client's written consent.

7. SPECIAL PROVISIONS

Refer to Section 7 Special Provisions TLPA's Division 100: General Provisions. This section addresses Bidding Requirements and Conditions, Award and Execution of Contract, Scope of Work, Control of Work, Control of Materials, Leal Relations, Environmental Requirements and responsibility to the Public, Prosecution and Progress, Measurement and Payment.

8. CONTACT INFORMATION

For questions or additional information, please contact:

Daniela Gutierrez, Project Manager, South Central Regional Transit District Email: dgutierrez@scrtd.org Phone: 575-637-1737.

As a condition to submitting a Bid all Bidders bidding as Contractors are required to be prequalified with the NMDOT's Office of Inspector General seven (7) Days before Bid Opening per 18.27.5 NMAC. All Subcontractors are required to be prequalified before performing any Work and prior to supplying goods or services to the Project. The Contractor Prequalification Rule, 18.27.5 NMAC, and Prequalification Packet are located at http://dot.state.nm.us/content/nmdot/en/prequalification.html.

All Bidders submitting Bids valued over sixty thousand dollars ($60,000.00) shall be registered with the Department of Workforce Solutions (DWS), Labor Relations before Bidding. The Bidder's registration number shall be included on the Bid Form. The Bidder's DWS registration number can be obtained through the website http://www.dws.state.nm.us/. If a Bidder appears on the DWS list of willful violators of the Public Works Minimum Wage Act (NMSA 13-4-14), the (**South Central Regional Transit**) shall reject the Bid and shall continue to reject Bids from that Bidder for three years after the date of publication of the list.

The Bidder's Bid Guaranty shall be five percent (5%) of the Bidder's Total Bid Amount and shall be submitted before Bid Opening.

The Bidder is not required to have a license from the CID for the Project's Work to submit a Bid. However, upon becoming the apparent successful Bidder, the Bidder must obtain a valid license with the proper classification for the Project's Work within 30 Days of the date on the notice of preliminary Award letter.

Federal and State Wage Rates are indicated below for the Project. The Bidder shall obtain the federal wage rate (Construction Type: Highway) through the US Department of Labor (DOL) website at https://sam.gov/content/home. In addition, the Bidder shall obtain the State wage rate (Street, Highway, Utility or Light Engineering Construction) through the DWS website at https://www.dws.state.nm.us/Labor-Relations/Labor-Information/Public-Works. The higher wage rate shall govern in the event of a discrepancy between the minimum wage rates in the DOL/DWS Wage Decision applicable to the Contract.

Failure of the Bidder to comply with this Advertisement shall render the Bid non-responsive and the Bid shall be rejected.

A Mandatory Pre-Bid Conference call will be held on (November 3, 2025), at (10:00 am), Local Prevailing Time. Refer to the Notice to Contractors for Mandatory Pre-Bid Conference.

Construction of a One-Acre Solar Array Phase 1. Project #2025-03 CN E100480)

TERMINI:	2001 Futurity Drive Sunland Park NM 88063
COUNTY:	Dona Ana
TYPE OF WORK:	Ground mount solar array with battery storage and microgrid integration
CONTRACT TIME:	**120 Calendar Days**
DBE GOAL:	At this time NMDOT will meet the State DBE on Federally assisted projects through a combination of race-neutral and race-conscious measures. This project is subject to race-conscious measures. The established DBE goal for this project is 0.00%.
LICENSES:	(EE-98)
FUNDING TYPE:	Federal-aid
LISTING THRESHOLD:	NONE
WAGE RATE (FEDERAL):	NM20230035
WAGE RATE (STATE):	Type "Building" (2025)

Advertisement dates: October 15, 2025

SECTION 3

Executed Contract, Bonds, Insurance

CONTRACT BETWEEN CONTRACTOR AND OWNER

Contractor, and

SOUTH CENTRAL REGIONAL TRANSIT DISTRICT

This Contract ("Contract") is entered into as of the ____ day of 2025 by and between _____ ("Contractor") and the South Central Regional Transit District ("SCRTD").

WHEREAS, the SCRTD is a political subdivision of the State of New Mexico, and,

WHEREAS, the SCRTD wishes to retain the Contractor to perform the work described below; and,

WHEREAS, the SCRTD has adopted its procurement code pursuant to the powers and authority granted it under the Regional Transit District Act and

WHEREAS, pursuant to the SCRTD's Procurement Regulations, the Contractor has held itself out as possessing the personnel, experience, and knowledge necessary to perform the services described in implementing the Scope of Work as described on the Contract Book and Contract Plans contained within the Bid Solicitation; and

WHEREAS, the SCRTD has selected the Contractor as the offeror with the low responsive bid and

WHEREAS, the procurement regulations are available to all vendors and contractors by and through the SCRTD. The most current version of the regulations are adopted by Resolution No. 2012-21 and are entitled "South Central Regional Transit District Procurement Regulations."

NOW, THEREFORE: in consideration of the mutual Contracts of the parties herein and

for other good and valuable consideration, the receipt of which is hereby acknowledged the parties to this Contract agree as follows:

1. SCOPE OF WORK

The Contractor shall provide the following services to the SCRTD. All services listed below shall be inclusive of work product and shall be interpreted consistent with any solicitation or procurement documents promulgated by the SCRTD:

A. Provide all services contained in their response to the BID SOLICITATION and the Contract Plans and any and all addenda as described in the SCRTDs BID SOLICITATION and as outlined in the project proposal.

B. Deliver the completed project promptly. All work will be done in cooperation with the SCRTD's project coordinator and in accordance with the Plan timeline.

C. Submit invoices as outlined in the Contractor's proposal, containing a detailed report of work performed. Invoices shall be substantially in the form outlined in the Contractor's bid form and shall contain a detailed report of work performed. Contractor recognizes and acknowledges that the SCRTD must make quarterly reports of progress including actual costs and expenses incurred as of the reporting date. The contractor's failure to submit enough information in a timely manner for this purpose may compromise the SCRTD's ability to obtain federal funds. It may, in turn, compromise payments by the SCRTD to the Contractor for amounts otherwise compensable under this Contract.

D. The Contractor may be required to attend SCRTD Board meetings and provide advice to the full SCRTD Board if the Executive Director requests it.

E. Contractor may be required to perform such acts and render such services as are reasonably necessary to complete the work contemplated under this Contract.

F. Contractor understands and agrees that additional professional services needed to perform the installation, preparation of single drawings for the El Paso Electric application or to prepare shop drawings for the ground mount array frame are to be performed and delivered as services of the Contractor's company or the Contractor's contracted services to consultants.

G. All deliverables required under this Contract, including material, products, reports, policies, procedures, software improvements, databases, and any other products and processes, whether in written or electronic form, shall remain the exclusive property of and shall inure to the benefit of SCRTD as works for hire. The contractor shall not use, sell, disclose, or obtain any other compensation for such works for hire. In addition, Contractor may not, with regard to all work, work product, deliverables, or works for hire required by this Contract, apply for, in its name or otherwise, any copyright, patent, or other property right and acknowledges that any such property, right created or developed remains the exclusive right of SCRTD. The contractor shall not use deliverables in any manner for any other purpose without the express written consent of the SCRTD.

2. STANDARD OF PERFORMANCE; LICENSES

A. The Contractor represents that it possesses the personnel, experience and knowledge necessary to perform the services described under this Contract.

B. The Contractor agrees to obtain and maintain, throughout the term of this Contract, all applicable professional and business licenses required by law for itself, its employees, agents, representatives, and subcontractors.

3. COMPENSATION

A. The SCRTD shall pay to the Contractor **$** _____ , excluding gross receipts tax. The aforementioned amount is inclusive of Contractor expenses anticipated to be incurred in performing the work of the Contract.

B. Payment shall be made upon receipt from the Contractor of statements in accordance with the work completed and in place. All statements shall contain a detailed report of work performed and expenses incurred. Prepayment by public entities is generally not permitted under New Mexico law. Therefore, service delivery and timely billing after that is a condition precedent to any payment by SCRTD to the Contractor.

C. The Contractor's sole responsibility for paying taxes on any money received under this Contract is the New Mexico gross receipts tax levied on the amounts payable under this Contract. The SCRTD will pay the New Mexico gross receipts tax to the Contractor.

D. The Contractor agrees to refund the SCRTD in the same proportion as it was paid to the Contractor. The expenditures under this Contract, when determined by the independent audit, are to be ineligible for payment.

4. APPROPRIATIONS

The terms of this Contract are contingent upon sufficient appropriations and authorization being made by the SCRTD for the performance of this Contract. If the SCRTD does not make enough appropriations and authorization, this Contract shall terminate upon written notice given by the SCRTD to the Contractor. The Contractor shall accept the SCRTD's decision as to whether enough Appropriations are available. They shall be final. By executing this Contract, the SCRTD represents that it will make reasonable faith efforts to ensure enough money is budgeted and appropriated to make the payments that may become due for the work performed under this Contract. However, by signing this Contract, the Contractor acknowledges and agrees that SCRTD

is not responsible for ensuring that budgeted amounts will be appropriated enough to pay any amendment, extension, or other charges beyond those outlined in Section 3 above.

5. TERM AND EFFECTIVE DATE

This Contract shall not become effective until the South Central Regional Transit District approves. It shall terminate at 5:00 p.m. on _____, 202__ unless terminated pursuant to paragraph 6 below or extended by Contract in writing for up to six (6) additional months.

6. TERMINATION

A. The SCRTD may terminate this Contract upon ten (10) days' written notice. Upon such termination, the Contractor shall be paid for Services completed to the satisfaction of SCRTD. The Contractor shall render a final report of the Services performed to the date of termination and turn over to SCRTD the originals of all materials prepared pursuant to this Contract.

(1) The Contractor shall render a final report of the services performed up to the date of termination and shall turn over to the SCRTD original copies of all work product, research, or papers prepared under this Contract.

(2) The Contract is not based upon hourly rates for services rendered, the SCRTD shall pay the Contractor for the reasonable value of services satisfactorily performed

through the date the Contractor receives notice of such termination and for which compensation has not already been paid.

7. STATUS OF CONTRACTOR; RESPONSIBILITY FOR PAYMENT OF EMPLOYEES AND SUBCONTRACTORS

A. The Contractor and its agents and employees are independent contractors performing professional services for the SCRTD and are not employees of the SCRTD. As a result of this Contract, the Contractor and its agents and employees shall not accrue leave, retirement, insurance, bonding, use of SCRTD vehicles, or any other benefits afforded to employees of the SCRTD.

B. The Contractor shall be solely responsible for paying wages, salaries, and benefits to all employees or contractors retained by the Contractor to perform the services under this Contract.

C. The Contractor is not an agent or employee of SCRTD and will not be considered an employee of SCRTD for any purpose. The contractor, its agents, or employees shall make no representation that they are SCRTD employees, nor shall they create the appearance of being employees by using a job or position title on a nameplate, business cards, or in any other manner bearing the SCRTD's name or logo.

D. Contractor shall have no authority to bind SCRTD to any Contract, duty, or obligation. The contractor shall make no representations intended to, or create the appearance of, binding the SCRTD to any Contract, duty, or obligation. The contractor shall have full power to continue any outside employment or business, to employ and discharge its employees or associates as it deems appropriate without interference from the SCRTD provided, however, that the Contractor shall at all times during the term of this Contract maintain the ability to perform the obligations in a professional, timely, and reliable manner.

8. CONFIDENTIALITY

A. Any confidential information provided to or developed by the Contractor in the performance of this Contract shall be kept confidential and shall not be made available to any individual or organization by the Contractor without the prior written approval of the SCRTD, except as otherwise provided by law. Notwithstanding the preceding Contract to keep materials confidential, the Contractor acknowledges and agrees that the SCRTD may provide copies of all documents required to be made available for inspection and copying pursuant to the New Mexico Inspection of Public Records Act. The contractor is not required to provide SCRTD with any documents that are not work product or are not otherwise required to perform the scope of work or to comply with state and federal laws. Nothing herein shall be deemed to waive any claim of confidentiality by SCRTD or Contractor nor to compel the production of documents or information other than as required by this Contract or by law.

B. Some documents may be subject to the requirements of the Privacy Act of 1974, 5 U.S.C. §552a. The Contractor agrees that it will always comply with and assist the SCRTD in complying with that law.

9. CONFLICT OF INTEREST

The contractor warrants that it presently has no interest, direct or indirect, and shall not acquire any interest, which would conflict in any manner or degree with the performance or services required under this Contract. The contractor certifies that the requirements of the Governmental Conduct Act, Sections 10-16-1 through 10-16-18 NMSA 1978, regarding contracting with a public officer, SCRTD employee, or former SCRTD employee have been followed.

ASSIGNMENT; SUBCONTRACTING

The Contractor shall not assign or transfer any rights, privileges, obligations or other interest under this Contract, including any claims for money due, without the prior written consent of the SCRTD. The contractor acknowledges that the SCRTD is a SUBGRANTEE as denoted in the Contract book and is expressly bound to seek the approval of any subcontracts under that Contract from the New Mexico Department of Transportation. The Contractor shall not subcontract any portion of the services to be performed under this Contract without the prior written approval of the SCRTD. The contractor agrees that its principal officers and employees are to perform the scope of work under this Contract and that it will not unreasonably delegate work to subordinates.

10. RELEASE

Upon acceptance of final payment of the amount due under this Contract, the Contractor releases the SCRTD, its officers, and employees from all liabilities, claims, and obligations arising from or under this Contract. The Contractor agrees not to purport to bind SCRTD to any obligation not assumed herein by the SCRTD unless the Contractor has express written authority to do so, and then only within the strict limits of that authority.

11. INSURANCE

A. The Contractor shall obtain and maintain adequate insurance at its own expense at all times during its performance of this Contract.

B. The contractor shall obtain and maintain the Workers' Compensation insurance required by law to provide coverage for the Contractor's employees throughout the term of this Contract. Upon request, the Contractor shall give the SCRTD evidence of its compliance with such

requirements.

C. Automobile Liability Insurance shall be in an amount at least equal to the minimum required by state law on any owned and/or non-owned motor vehicles used in performing Services under this Contract,

D. General Liability Insurance shall be for $1,000,000 combined single limit and per occurrence shall name the SCRTD as an additional insured and shall provide that the SCRTD will be notified no less than thirty (30) days in advance of cancellation;

E. The SCRTD retains the right to require that the Contractor obtain or provide proof of insurance, certificates of insurance, riders, or addenda, including documents listing SCRTD as an additional named insured if, in the SCRTD's opinion, the Contractor's work creates a risk or liability for the SCRTD that can be covered and insured without excessive cost or expense to the Contractor.

F. Waiver of insurance requirements may only be performed in writing by the SCRTD's Executive Director and only if he is satisfied that the waiver will not result in substantial or unreasonable liability for the SCRTD.

13 INDEMNIFICATION

The contractor agrees to indemnify SCRTD to the extent permitted by law for the Contractor's acts and omissions under this Contract and other liabilities that the SCRTD may incur due to the Contractor's performance or failure to perform the services outlined in this Contract.

14. NEW MEXICO TORT CLAIMS ACT

Any liability incurred by the SCRTD in connection with this Contract is subject to the immunities and limitations of the New Mexico Tort Claims Act, Section 41-4-1, et. seq. NMSA

1978, as amended. The SCRTD and its "employees," as defined in the New Mexico Tort Claims Act, do not waive sovereign immunity, any defense, or any limitation of liability pursuant to law. No provision in this Contract modifies or waives any New Mexico Tort Claims Act provision.

15. THIRD PARTY BENEFICIARIES

A. By entering into this Contract, the parties do not intend to create any right, title, or interest in or for the benefit of any person other than the SCRTD and the Contractor. No person shall claim any right, title, or interest under this Contract or seek to enforce this Contract as a third-party beneficiary.

B. In compliance with the Contract Book, the Contractor acknowledges and agrees to the following:

> "The New Mexico Department of Transportation and SUBGRANTEE Acknowledge and agree that, notwithstanding any concurrence by the Federal government in or approval of the solicitation or award of the CONTRACT, absent the express written consent by the Federal government, the Federal government nor NMDOT are a party to this CONTRACT and shall not be subject to any obligations or liabilities to the DEPARTMENT, SUBGRANTEE, or any other party (whether or not a party to the CONTRACT) about any matter resulting from the CONTRACT."

16. RECORDS AND AUDIT

A. The Contractor shall maintain, throughout the term of this Contract and for six (6) years after that, records that indicate the date, time, and nature of the services rendered. The contractor shall make available for inspection by SCRTD all records, books of account, memoranda, and other documents about SCRTD should be sent at any reasonable time upon request. The SCRTD, the Department of Finance and Administration, and the State Auditor shall inspect these records. The SCRTD shall have the right to audit the billing before and after payment.

Payment under this Contract shall not foreclose the SCRTD's right to recover excessive illegal payments.

B. Contractor acknowledges and agrees to maintain all records over five (5) years from the date of the last expenditure report submitted to the Federal government under Exhibit B to ensure the SCRTD can comply with the requirements under that Contract.

17. APPLICABLE LAW; CHOICE OF LAW; VENUE

The contractor shall abide by all applicable federal and state laws and regulations as well as all ordinances, rules, and regulations of the City of Sunland Park. In any action, suit, or legal dispute arising from this Contract, the Contractor agrees that the laws of the State of New Mexico shall govern. The parties agree that any action or suit arising from this Contract shall be commenced in a federal or state court of competent jurisdiction in New Mexico. Any action or suit commenced in the State of New Mexico courts shall be brought in the First Judicial SCRTD.

18. AMENDMENT

This Contract shall not be altered, changed, or modified except by an amendment in writing executed by the parties hereto.

19. SCOPE OF CONTRACT

This Contract incorporates all the Contracts, covenants, and understandings between the parties hereto concerning the services to be performed hereunder, and all such Contracts, covenants, and understandings have been merged into this Contract. This Contract expresses the entire Contract and understanding between the parties concerning said services. No prior Contract or understanding, verbal or otherwise, of the parties or their agents shall be valid or enforceable only if embodied in this Contract.

20. NON-DISCRIMINATION

During the term of this Contract, Contractor shall not discriminate against any employee

or applicant for an employment position to be used in the performance of services by Contractor hereunder based on ethnicity, race, age, religion, creed, color, national origin, ancestry, sex, gender, sexual orientation, physical or mental disability, medical condition, or citizenship status.

21. SEVERABILITY

In case any one or more of the provisions contained in this Contract or any application thereof shall be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein and any other application thereof shall not in any way be affected or impaired thereby.

22. NOTICES

Any notices required under this Contract shall be in writing and served by personal delivery or mail, postage prepaid, to the parties at the following addresses. Notices may also be provided by electronic transmissions such as facsimiles or e-mails. However, the burden of proof to establish that notice was received shall be on the party electing to utilize electronic transmissions of notifications. Notice under this Contract shall be deemed given on the day personally delivered or three (3) days after deposit in the United States Mail, first-class postage prepaid, or on the date sent and received if sent by electronic mail. Notices by regular mail shall be sent to a party at the address set forth below:

South Central Regional Transit District
Executive Director
399 West Lohman, Suite 115
Las Cruces, NM 88005

Contractor

An address may be changed by notification to the other party in writing, delivered as specified for notices hereunder. Unless such notice is made, a party is entitled to rely on the above address.

23. COMPLIANCE WITH FEDERAL RESTRICTIONS

The Contractor acknowledges and agrees that contracts such as this Contract, which are funded with or implicate federal laws, grant requirements, and restrictions, are subject to state and federal requirements and compliance above and beyond the express terms outlined in this Contract and that the Contractor has made an independent inquiry and satisfied itself that it may perform the work required under this Contract while, at all times, maintaining compliance with said restrictions. Express requirements and regulations include but are not limited to:

A. All requirements of 49 U.S.C. §5304 whether express or implied;

B. Federal Funds received by the SCRTD shall be used solely for activities required by this Contract.

C. Federal Funds shall only be allocated to pay eligible costs as applicable and as detailed in 2 Code of Federal Regulations (CFR) parts 200 and 1201, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards."

D. Compliance and certification of compliance with Program Fraud Civil Remedies Act of 1986, 31 U.S.C. §§ 3801 et seq. and associated regulations, including 49 C.F.R. Part 31. Penalties may be imposed under 18 U.S.C. §1001 and 49 U.S.C. 5307(n) (1). The full text of the clauses is as follows:

"The SUBGRANTEE acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, 31 U.S.C. §§3801 et seq. U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions regarding this Program. The SUBGRANTEE further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on SUBGRANTEE to the extent the Federal government deems appropriate.

§ 5307, the Federal government reserves the right to impose the penalties of 18 U.S.C. §1001 and 49 U.S.C. §5307 (n)(1) on the SUBGRANTEE, to the extent the Federal government deems appropriate."

E. Compliance and assistance with compliance with the Privacy Act of 1974 requirements, 5 U.S.C. §552a.

F. Title VI and Title VII of the Civil Rights Act of 1964, the Age Discrimination Employment Act, the Americans with Disabilities Act of 1990, the Environmental Justice Act of 1994, the Civil Rights Restoration Act of 1987, the New Mexico Human Rights Act, Executive Order 11246 as amended by Executive Order 11375 and as supplemented by the Department of

Labor regulations 41 C.F.R. part 60 and 49 C.F.R. part 21.

G. Federal Transit Laws, including 49 U.S.C. §5332 and all implementing regulations.

H. Compliance and assistance with Title VII of the Civil Rights Act, 42 U.S.C. §2000e, and Federal Transit Laws at 49 U.S.C. §5332, 41 C.F.R. Parts 60 et seq. and implementing regulations. The specific provision of Exhibit B is as follows:

> "The following equal opportunity requirements apply to the CONTRACT: Race, Color, Creed, National Origin, Sex – by Title VII of the Civil Rights Act, 432 U.S.C. §2000e, and Federal Transit Laws at 49 U.S.C.
> §5332, the SUBGRANTEE agrees to comply with all applicable equal employment opportunity requirements of the U.S. Department of Labor regulations: Office of Federal Contracts Compliance Programs, Equal Employment Opportunity, Department of Labor, 41 C.F.R. Parts 60 et seq., (which implement Executive Order no. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Offer 11246 relating to Equal Employment Opportunity," 42 U.S.C. §20003 note), and with any applicable Federal statues, executive orders, regulation and Federal policies that may in the future affect construction activities undertaken in the course of the Program. The SUBGRANTEE agrees to take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading,

demotion or transfer; recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

J. Compliance and assistance with the Age Discrimination in Employment Act of 1967, 29 U.S.C. §623, and Federal Transit Laws at 48 U.S.C. §5332. The specific provision of Exhibit B is as follows:

"The following equal opportunity requirements apply to the CONTRACT: Age – In accordance with Section 4 of the Age Discrimination in Employment Act of 1967, 29 U.S.C. §623 and Federal Transit Laws at 49 U.S.C. §5332, the SUBGRANTEE agrees to refrain from discrimination against present and Prospective employees for reason of age.

K. Compliance and assistance with Section 102 of the Americans with Disabilities Act, 42 U.S.C. §12112 and 29 C.F.R. Part 1630. The specific provision of Exhibit B is as follows:

"The following equal opportunity requirements apply to the CONTRACT: Disabilities – In accordance with Section 102 of the Americans with Disabilities Act, 42 U.S.C. §12112, the SUBGRANTEE agrees that it will comply with the requirement of the U.S. Equal Employment Commissions, "Regulation to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630.

L. Compliance with all applicable standards, orders, or regulations and assistance in reporting any violations relating to the Federal Water Pollution Control Act, 33 U.S.C. §§1251 et seq., and the Clean Air Act, 42 U.S.C. §§7401 et seq.

M. Compliance with Executive Order 12549, as implemented by 49 C.F.R. Part 29 regarding non-employment of suspended and debarred contractors.

N. Compliance and certification of compliance with 49 C.F.R. Part 29 and particularly Subpart "C" by Contractor and any subcontractors.

O. The CONTRACTOR agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

IN WITNESS, the parties executed this Contract on that date.

Below.

CONTRACTOR

_____

By: _____ Its: _____ Date: _____

SOUTH CENTRAL REGIONAL TRANSIT DISTRICT:

_____

David Armijo,
Executive
Director

Date: _____

Approved as to form:

_____

Attorney

SECTION 4

Required Documents

Bid Schedule
Bid Form
Affidavit of Bidder
Bid Guaranty
Bidder's List of Quoters for the DBE Program
Non-Debarment Certification

South Central Regional Transit District
Bid Schedule

Control Number ("CN"): E100480

BIDDER: _____ TELEPHONE: ( ) _____
ADDRESS: _____

Total Bid Amount: _____

The Bidder must Bid on all Bid Items in the Bid Schedule.

BID ITEM #	DESCRIPTION	UNIT	QTY.	BID AMOUNT
621000	MOBILIZATION	LS	1	
663213	SOLAR SYSTEM (REFER TO SECTION 5 NTC ITEMIZED LIST)	LS	1	
802000	POST CONSTRUCTION PLANS	LS	1	
803030	TRAINING FOR INVERTERS, PV MODULES, BATTERY STORAGE	LS	1	

South Central Regional Transit District
Bid Form

Control Number ("CN"): E100480

BIDDER: _____ TELEPHONE: ( ) _____
ADDRESS: _____
BIDDER'S DEPARTMENT OF WORKFORCE SOLUTIONS REGISTRATION No. _____
*BIDDER'S LICENSE No. _____ * LICENSE CLASSIFICATION(S) _____

* Not Required for Bidding on Federally funded Projects

The Bidder proposes to construct this Project at the prices quoted in the Bid Schedule and in accordance with the Contract. The Contract includes the Advertisement, Bid Form, Bid Schedule, Contract Bond, Standard Specifications, Supplemental Specifications, Special Provisions, Addenda, Notice to Contractors, Plans, Standard Drawings, Notice to Proceed, Change Orders and agreements that are required to complete the construction of the Work in an Acceptable manner, including authorized extensions thereof, all of which constitute one instrument. The contents of the Contract are incorporated by reference herein.

The submission of a Bid shall be considered the Bidder's certification that it has exercised Pre-Bid Due Diligence and shall be considered prima facie evidence that the Bidder accepts the conditions to be encountered in performing the Work and accepts the provisions and requirements of the Contract. Pre-Bid Due Diligence is the Bidder's exercise of due diligence before submittal of a Bid which includes the careful, independent examination of the site of the proposed Work, including Materials pits and haul Roads, the Bid Package, all Contract documents including Standard Specifications, Special Provisions, Supplemental Specifications, and Standard Drawings and boring logs which are representative of the condition at the precise location where each boring was made but conditions may vary between boring locations.

Contract Time is in the Advertisement. The Bidder shall commence Work within the timeframe specified in the Notice to Proceed, when issued, incorporated herein by reference.

Overcharges resulting from antitrust violations are borne by the South Central Regional Transit District. Through the submission of the Bid the Bidder certifies that the Bidder is duly authorized to assign, sell, convey, and transfer to the South Central Regional Transit District all right, title and interest to all claims and causes of action the Bidder has or may acquire under state or federal antitrust laws provided that the claims or causes of action are related to the goods, Materials or services that are the subject of this Contract and to the extent that the same are passed on to the South Central Regional Transit District. Additionally, the Bidder certifies that it will require all of its Subcontractors at all tiers to assign all federal and state antitrust claims and causes of action as described in this paragraph to the South Central Regional Transit District . The provisions of this paragraph shall become effective at the time the South Central Regional Transit District executes this Contract without further acknowledgment from the Bidder or the Bidder's Subcontractors at all tiers.

South Central Regional Transit District

Affidavit of Bidder

BIDDER: _____ TELEPHONE: ( ) _____
ADDRESS: _____

The Bidder shall execute this Certification of Bidder. I _____ hereby affirm per 23 C.F.R. § 635.112(f) (2009) and as a condition to the South Central Regional Transit District's execution of this Contract that I have not either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the Bid for this Contract.

Further affiant sayeth not.

Title: _____

Bidder (print): _____

Bidder Signature: _____

STATE OF _____)

COUNTY OF_____)

SUBSCRIBED AND SWORN TO BEFORE ME ON THIS:

_____day of _____2023

_____
Notary Public

My Commission Expires: _____

Before Bid Opening, the Bidder shall submit this Affidavit of Bidder in the form required by the bidding instructions. Refer to this Project's Advertisement for questions regarding this process.

Failure to comply with the completion and timely submission of the Affidavit of Bidder shall result in the Bidder's Bid being rejected as non-responsive.

South Central Regional Transit District

Bid Guaranty

Control Number ("CN"): E100480

BIDDER: _____ TELEPHONE: ( ) _____
ADDRESS: _____

SURETY: _____
SURETY BUSINESS ADDRESS: _____

KNOWN ALL MEN by these presents that the Surety having its registered office at the above address are bound unto the South Central Regional Transit District in the sum of five percent (5%) of the Total Bid Amount as shown on the Project Bid Schedule for which payment well and truly to be made to the South Central Regional Transit District the Surety binds itself, its successors and assigns by these presents.

The Surety undertakes to pay the South Central Regional Transit District up to the above amount upon receipt of the South Central Regional Transit District's first written demand, without the South Central Regional Transit District having to substantiate its demand, provided that in its demand the South Central Regional Transit District will note that the amount claimed by the South Central Regional Transit District is due to the Bidder failing to return the signed Contract and Contract Bonds within fifteen (15) Days of receiving the Contract. The Guaranty will remain in force up to 30 Days after Bid Opening or as it may be extended by the South Central Regional Transit District, notice of which extension(s) to the Surety is hereby waived.

New Mexico Department of Transportation ("NMDOT")
Bidder's List of Quoters for the Disadvantaged Business Enterprise ("DBE") Program

Control Number ("CN"): _____

BIDDER: _____ TELEPHONE:{ _____
ADDRESS: _____

The NMDOT establishes the New Mexico DBE goal using the mechanism of a Bidder's list per 49 C.F.R. § 26.45 (2014). The Bidder's list shall contain all quotes, from both DBE and non-DBE quoters, received by the Bidder and shall be submitted with the Bid. The term "quoter" shall include Subcontractors and Suppliers.

Failure of the Bidder to comply with this Bidder's List of Quoters shall render the Bid non-responsive and the Bid shall be rejected.

Name of Contractor, Subcontractor or Supplier	Address	DBE	Non-DBE

South Central Regional Transit District
Non-Debarment Certification

Control Number ("CN"): E100480

BIDDER: _____ TELEPHONE: ( ) _____
ADDRESS: _____

The Federal Highway Administration suspends or debars contractors to protect taxpayer dollars and the South Central Regional Transit District is required to Award Contracts to responsible Bidders. The submission of the Bid is the Bidder's certification that neither it nor its principals are presently suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this Project by any federal department or agency. The Bidder further agrees that if it is the lowest Responsible Bidder and awarded the Contract then it shall comply with the following:

1. The Contractor shall verify through the SAM.gov website at https://www.sam.gov/portal/SAM/##11 that its Subcontractor(s), at any tier(s), is not presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Project. The result of this verification shall be provided in the NMDOT's permission to subcontract request form number A - 1086 and A – 1087; and

2. If circumstances change to render this certification inaccurate then the Contractor shall provide the changed circumstances immediately in writing to the Project Manager.

If the Contractor knowingly makes a false certification, the South Central Regional Transit District may take any available actions under the Contract.

Failure to acknowledge the terms and conditions above shall render the Bid non-responsive and the Bid shall be rejected.

I acknowledge: YES / NO (circle one)

SECTION 5

Project Specific Notices to Contractors

Additional Named Insured (1-1-19)
Cooperation with Utilities
DBE Goal
Dispute Resolution Board (DRB) (10-4-19)
Itemized List
Replace NMDOT reference with South Central Regional Transit District (SCRTD)
Schedule Format (6-20-19)
Virtual Mandatory Pre-Bid Conference (1-1-19)
Build America/Buy America
State Wage Rate

Chief Engineer
January 1, 2019

NOTICE TO CONTRACTORS

Additional Named Insured

CN E100480

In accordance with the 2019 Edition of the New Mexico Department of Transportation Standard Specifications Section 107.25.4, "Department as Additional Insured" the successful Bidder shall name the South Central Regional Transit District as an additional named insured on the comprehensive general liability form or commercial general liability form and return the same with the return of the Contract documents listed and in the timeframe required in the notice of preliminary Award of Contract letter.

Pursuant to Section 103.8, "Execution of Contract", failure by the successful Bidder to comply with this Notice to Contractors may constitute just cause for cancellation of the Award and the forfeiture of the Bid Guaranty.

NOTICE TO CONTRACTORS

Cooperation with Utilities

CN E100480

For construction purposes this Notice to Contractors ("NTC") does not supersede or alter the obligations in the 2019 Edition of the New Mexico Department of Transportation ("NMDOT") Standard Specifications for Highway and Bridge Construction, ("Standard Specifications") Section 105.6, "Cooperation with Utilities". This Project's Work affects utilities. The NMDOT may or may not own the utilities that are within the Project limits. Therefore the Contractor shall coordinate with both the NMDOT and the respective utility identified in this NTC. Failure by the Contractor to comply with this NTC and the Contract may result in delays to the Project and may result in Non-Conformances. This coordination and associated Work shall be considered incidental to the completion of the Project and no separate measurement or payment will be made.

The Contractor shall preserve line location markings or provide an offset mark before obliterating a locate mark. Restrictions exist regarding the use of emergency line locates. An emergency is defined as an excavation that must be performed due to circumstances beyond the control of the Contractor and that affects public health, safety or welfare. Emergency locate request shall not be used to circumvent poor job planning or economic consequences.

SCRTD Owned Facility Infrastructure

If a Contractor's or Subcontractor's activities at any tier, destroys, obliterates, covers or in any way alters utility markings put in place by the SCRTD, the Contractor shall ensure that those line markings are reestablished or provide offset markings before the Contractor or its Subcontractor at any tier begins Work in the affected area. The Contractor shall both photo document the utility markings in their construction area prior to disturbing those markings and photo document the remarked utility alignment or the offset markings to ensure accuracy to the original markings. Photos will clearly identify distances and/or recognizable features needed to ensure re-markings or offset markings are accurate.

If the Contractor or Subcontractor at any tier fails to accurately reestablish previously placed line markings and damage occurs to any SCRTD owned facility infrastructure the Contractor shall be responsible for all associated repair costs and no additional Contract Time will be granted for repairs. If any SCRTD owned facility is damaged, the Contractor shall bear the cost of repair to the satisfaction of the SCRTD. SCRTD incurred costs related to damage to SCRTD owned facility infrastructure may be recovered from the Contractor by Progress Payment offset or the Contractor's Project performance bond. All damaged infrastructure will be repaired as an emergency repair (within 24-hours) and shall be performed in accordance with the Standard Specifications.

Non-SCRTD Owned Utility Infrastructure

Utilities shown on the Plans, which will not be relocated, shall require the Contractor to take the necessary precautions to protect the utility from damage caused by the Work. If any such utility is damaged, the Contractor shall bear the cost of repair to the satisfaction of the utility owner. The Contractor shall be responsible for all associated repair costs and no additional Contract Time will be granted for repairs.

Utility Impact

Utilities detailed below, shall require the Contractor to take the necessary precautions to protect the utility from damage caused by the Work. If any such utility is damaged, the Contractor shall bear the cost of repair to the satisfaction of the utility owner. The Contractor shall be responsible for all associated repair costs and no additional Contract Time will be granted for repairs.

All timeframes listed below are reflected in Days. Per Standard Specification Section 108.3 "Schedule" the Contractor shall include the timeframes listed below as an activity in the CPM Baseline Schedule or Bar Graph Baseline Schedule, as called for in the Contract, and all schedule updates so that the SCRTD can readily identify the Work and measure the progress of the same.

EPE has identified the following conflicts will the construction of the Solar Array & Microgrid project:

1. An existing area light fixture wood pole is located where the solar farm is to be constructed.
2. The Solar Farm being too close to the overhead electrical utility line, which is situated on the northwest side of the property.

The above configuration presents a spatial conflict that must be addressed to maintain compliance and ensure safety. Upon removal of the light, the conflict will be resolved. A work order has been initiated to facilitate this removal, with an estimated timeline of 4 months for completion. It is also important to note that access to utility infrastructure must be maintained at all times. Furthermore, as long as the solar farm remains offset from the overhead line of a minimum of 10ft, no additional conflict will exist, and the installation will remain within acceptable operational standards.

Contractor shall perform the following adjustments and prepare the following applications:

UTILITY OWNER: El Paso Electric Company
Work Location 2001 Futurity Drive Sunland Park NM 88063
Scope: EPE will have to receive and approve the "New Mexico – Interconnection of Facilities Greater Than 10 KW and up to 100KW." Application.

Scope: EPE shall inspect and approve the new solar systems prior to installing meters and energizing the PV system.

Scope: Pad mount transformer metering, (2) locations
It will be necessary for El Paso Electric to replace the existing revenue meters with bi-direction meters. The EPE provided and installed meters will be installed in a customer provided meter can. EPE will additionally install new PV meters in a customer provided meter can.

The contractor schedule should allow 25 working days for EPE to review the application.

The contractor schedule should allow 10 working days for EPE to inspect and approve the installed system after a request for inspection.

NOTICE TO CONTRACTORS

PROJECT CN E100480

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Contractor is advised that there is no project specific DBE goal. A bidder's list of sub-contractors will still be required.

Office of the Secretary
October 4, 2019

NOTICE TO CONTRACTORS

Dispute Resolution Board (DRB)

CN E100480

As a condition to submitting a Bid, prospective Bidders agree that Section 105.20, "Administrative Remedy", of the 2019 Edition of the New Mexico Department of Transportation (NMDOT) Standard Specifications for Highway and Bridge Construction (Standard Specifications) shall be removed in its entirety and replaced with the Dispute Resolution Board (DRB) procedures detailed below.

The Bidder/Contractor and SCRTD mutually agree to utilize the DRB to resolve any and all Claims properly submitted in accordance with Section 105.19, "Notice of Intent to Claim" instead of utilizing Section 105.20, "Administrative Remedy", of the 2019 Edition of the NMDOT Standard Specifications or proceeding to litigation in State District Court.

The Bidder/Contractor and SCRTD agree to utilize the DRB to resolve any and all Claims or disputes. The DRB panel shall consist of three (3) individuals. With its Bid, the Bidder/Contractor shall complete the form "Bidder/Contractor Dispute Resolution Board Panelist" which names the Bidder/Contractor DRB panelist and shall have its panelist provide the "Affidavit of Dispute Resolution Board Panelist". Both forms shall be uploaded by the Bidder in the form of a zip file to the "file attachment upload" tab in the Project Bids.EBSX file through Bid Express.

Failure by the Bidder to comply with this requirement of the NTC shall render the Bidder's Bid as non-responsive and its Bid shall be rejected.

For the purposes of this Contract, capitalized terms not otherwise defined herein shall have the same meanings as assigned to them in the Contract unless the context clearly requires otherwise.

Pursuant to the Contract, the DRB will implement these hearing rules and procedures in a manner to make the hearing informal, efficient, and expeditious. The DRB, however, will retain the authority to conduct the hearing as it deems most appropriate, consistent with the Contract. The DRB may consult with the SCRTD Executive Director on procedural questions concerning this NTC.

The DRB chair will be responsible for directing the course of the hearing and for keeping the official records of the hearing, preparing any and all communications as well as issuing the written majority determination of the DRB.

For each claim considered, DRB internal deliberative records and materials are confidential until the DRB issues the written determination. After the DRB issues the determination, the DRB chair will ensure all records and materials are collected and provided to SCRTD. DRB records are to be maintained as part of the Project records in accordance with the Contract and any applicable retention requirements.

The Bidder's/Contractor's panelist shall:

1. Not be an employee of the Bidder/Contractor or have been employed by the Bidder/Contractor within the last two (2) years from the Project Bid Opening date;
2. Not be an Attorney or have previously been licensed as one;
3. Have 15 years' experience in highway construction management, methods or techniques or have an active professional license with the state of New Mexico as an Engineer or Surveyor with 10 years' experience in highway construction management, methods or techniques;
4. Be either a resident of the state of New Mexico or identify New Mexico as the panelist's principal place of business or reside within 60 miles of the Project location;
5. Agree to serve on the panel and abide by all provisions of this NTC;- and,
6. Provide the attached "Affidavit of Bidder/Contractor Dispute Resolution Board Panelist" with the Bid.

The Bidder/Contractor is completely financially responsible for its panelist's salary, fees and or expenses as outlined in the charter.

The SCRTD will name its panelist and notify Bidders/Contractors in writing no later than eighteen (18) Days after the Notice of Preliminary Award. Such notice will be provided by the Project Manager to the Bidder/Contractor (Project manager will provide notice via e-mail to SCRTD Executive Director).

The SCRTD's panelist shall:

1. Not be an employee of the SCRTD or NMDOT or have been employed by the SCRTD or NMDOT within the last two (2) years from the Project Bid Opening date;
2. Not be an Attorney or have previously been licensed as one;
3. Have 15 years' experience in highway construction management, methods or techniques or have an active professional license with the state of New Mexico as an Engineer or Surveyor with 10 years' experience in highway construction management, methods or techniques;
4. Be either a resident of the state of New Mexico or identify New Mexico as the panelist's principal place of business, or reside within 60 miles of the Project location;
5. Agree to serve on the panel and abide by all provisions of this NTC; and,
6. Have the attached "Affidavit of SCRTD Dispute Resolution Board Panelist" on file with the SCRTD Plans Specifications and Estimates Bureau within five (5) Days agreeing to serve as a panelist.

The SCRTD is completely financially responsible for its panelist's salary, fees and or expenses as outlined in the charter.

No later than ten (10) Days before the Pre-Construction Conference, the two (2) panelists will choose a third panelist. The third panelist shall:

1. Not be an employee of the Bidder/Contractor and or the SCRTD or NMDOT or have been employed by the Bidder/Contractor or SCRTD or NMDOT within the last two (2) years from the Project Bid Opening date;
2. Not be an Attorney or have previously been licensed as one;

3. Have 15 years' experience in highway construction management, methods or techniques or have an active professional license with the state of New Mexico as an Engineer or Surveyor with 10 years' experience in highway construction management, methods or techniques;
4. Be either a resident of the state of New Mexico, identify New Mexico as the panelist's principal place of business, or reside within 60 miles of the Project location.
5. Agree to serve on the panel and abide by all provisions of this NTC;
6. The third panelist shall be the DRB chair; and,
7. Provide the Project Manager the "Affidavit of Dispute Resolution Board Chair" within five (5) Days of agreeing to serve.

The Bidder/Contractor and SCRTD agree to be equally responsible for the third panelist's salary, fees and or expenses, as outlined in the charter.

The three panelists shall attend the Pre-Construction Conference. The three panelists shall be paid for their time at the Pre-Construction Conference in accordance with the Dispute Resolution Charter. The panelists will not be compensated for travel to or from the Pre-Construction Conference. If the Bidder/Contractor and SCRTD panelists are unable to agree to a third panelist by the time of the Pre-Construction Conference, the Bidder/Contractor and SCRTD panelists shall attend the Pre-Construction Conference and will be responsible for advising the third panelist upon appointment.

If the Bidder/Contractor panelist and the SCRTD panelist are unable to agree on a third panelist, the Cabinet Secretary shall choose the third panelist from a list of four (4) prospective panelists who meet the requirements of the preceding paragraph, two (2) each provided by the Bidder/Contractor panelist and SCRTD panelist. This appointment shall be made within five (5) Days of the impasse. The parties may agree in writing to extend this deadline and shall notify the Cabinet Secretary.

In the event the Bidder/Contractor panelist is unable to fulfill the duties of the DRB the Bidder/Contractor shall within three (3) Days of receiving a letter of resignation from its panelist appoint a replacement panelist. The replacement panelist shall meet the same requirements cited above. In the event the SCRTD panelist is unable to fulfill the duties of the DRB, the SCRTD shall within three (3) Days of receiving a letter of resignation from its panelist appoint a replacement panelist. The replacement panelist shall meet the same requirements cited above. In the event a replacement panelist is needed for the third panelist, the same process shall be used in selecting a replacement panelist that was used in establishing the initial panelist by the Bidder/Contractor and SCRTD.

In the event the Bidder/Contractor Superintendent and SCRTD Project Manager reach an impasse regarding a Project issue initiated by the Bidder/Contractor, the Bidder/Contractor shall properly submit a Notice of Intent to Claim (Claim) in accordance with Standard Specifications Section, 105.19, "Notice of Intent to Claim".

In the event the Bidder/Contractor Superintendent and SCRTD Project Manager reach an impasse regarding a Project issue initiated by the Project Manager, the Project Manager shall submit, to the Bidder/Contractor Superintendent, a Notice of Dispute (Claim) that details fully details the dispute and impasse.

The Project Manager and the Project Superintendent shall attempt to resolve any impasse prior to submission to the Chair. If the Project Manager and the Project Superintendent are unable to resolve the impasse within seven (7) days after receipt of a Notice of Intent to Claim or Notice of Dispute (the "Claim"), the Project Manager shall forward the Claim to the chair of the DRB via e-mail and shall copy the Project Superintendent.

The following procedures will be used for the DRB panel upon receipt (the Claim):

Within seven (7) Days of receipt of the Claim from the Project Manager, the chair will notify the Bidder/Contractor Superintendent and SCRTD Project Manager of the date for any additional pre-hearing submissions and the hearing date. Except in circumstances that require immediate action, as determined by the chair, the hearing will be scheduled within 14 Days of the receipt of the Claim by the chair.

In large or complex Claims, as determined by the chair, these timelines may be modified, with the approval of the State Construction Engineer.

As determined by the chair, any DRB hearing shall be conducted within a close proximity to the Project. All Bidder/Contractor facilities and SCRTD facilities are to be made available for hearing use.

In large or complex Claims, the DRB may request that the parties participate in a telephone or in-person preliminary conference with the DRB. At the preliminary conference, the chair shall provide the parties with organizational instructions and inform them of any issues that the DRB would like to have addressed at the hearing. The DRB may also address issues such as the merit and amount elements of the Claim, the desired order of presentation of the parties' positions, the persons who may need to be present at the hearing, and any other matters that would promote the efficient and expeditious processing of the hearing and matter.

The chair may require the parties to produce documents at or before any hearing. Within seven (7) Days of the Claim being provide to the chair by the Project Manager and prior to the scheduled hearing date, the chair will notify the parties in writing, email acceptable, of any documents that may be required to be produced for the hearing.

Within seven (7) Days of the Claim being provided to the chair by the Project Manager and prior to a scheduled hearing date, the parties shall exchange and submit to the chair a list of each document or exhibit that each party intends to submit, use, or refer to in its presentation at the hearing. Each party shall include with the list a copy of each document or exhibit not included in prior submissions to the chair.

The parties are encouraged to submit exhibits, charts, or summaries of documents in order to facilitate the DRB's understanding of the issues in the Claim and to avoid the submission of voluminous records that may not be necessary for the DRB's determination. Within seven (7) Days of the Claim being submitted to the chair by the Project Manager and prior to a scheduled meeting date, such documents also shall be exchanged with all other parties to the Claim and submitted to the chair.

The Bidder/Contractor and SCRTD shall provide copies as directed by the chair. All documentation submitted to the DRB is to be labeled as follows:

Dispute #
CN: #######
SCRTD Exhibit ## of ###

OR

Dispute #
CN: #######
[Bidder/Contractor Name] Exhibit ## of ###

The parties will prepare individual, standalone statements of position describing the dispute, the party's position, the contractual justification for that position, and any reference material.

The following are suggested guidelines for statements of position and related documentation.

- The parties should attempt to agree to a simple statement of the dispute, typically limited to one paragraph.
- The parties should stipulate to as many facts, dates and quantities as possible and include this stipulation in their statement of position.
- The parties should present their entitlement position in the dispute, with specific references to appropriate contractual documents that support their position and include copies of those documents in the statement of position.
- If quantum is to be considered in the same hearing meeting, the parties should present their quantum position in the Claim case with specific analysis of the comparative cost, productivity, or timeliness issue.
- The parties should not send to the chair or to each other any further exhibits or correspondence regarding the Claim, without the prior approval of the chair, between the time the statement of position has been sent out and the hearing.
- The statement of position should be either emailed, hand-delivered or mailed, overnight mail to all parties as directed by the chair and prior to the established hearing date. An acceptance signature is not required.
- These guidelines are subject to change to fit the circumstances of a particular Claim.

The DRB will not be bound by the judicial rules of evidence or burden of proof. The DRB may limit the presentation when all panelists agree that they have sufficient understanding of the facts underlying a claim or defense to make its recommendations.

Each party shall make an initial presentation of its position with respect to the Claim or defense and one or more rebuttals to any assertion by another party, until the DRB determines that all aspects of the Claim have been addressed adequately. The DRB chair may limit the presentation of documents or oral statements when it considers them to be irrelevant or redundant. The DRB chair shall control the hearing and guide the discussions of issues by asking questions of the parties in order to obtain expeditiously all information the DRB considers necessary to make its determination. The DRB chair may permit the questioning of one party by another party only if it would facilitate the presentation or clarification of an issue in the Claim.

Authorized representatives of the SCRTD and Bidder/Contractor shall attend the hearing. No other person may attend the hearing, except with permission of the chair granted after hearing the objections of all participating parties.

Prior to a scheduled hearing date, as directed by the chair, the parties shall exchange and submit to the chair a list of their respective witnesses and representatives planning to attend the meeting. The list should contain the following information:

- the person's name;
- title;
- professional affiliation; and
- a brief summary of the matters that the person will address.

The parties agree that attendance by legal counsel will not be allowed at the hearing.

The DRB shall not split or consolidate any Claim. The DRB is to address the Claim presented and issue a determination based solely on the contract and factual elements presented.

The Bidder/Contractor shall identify clearly in all submissions, each portion of the Claim that involves a Subcontractor Claim and the identity of the related Subcontractor. The Bidder/Contractor also shall ensure that all documents required by these rules and procedures are timely submitted.

At any DRB meeting on a Claim that includes one or more Subcontractor Claims, the Bidder/Contractor shall require that an authorized representative of each Subcontractor that is involved in the Claim with direct and actual knowledge of the facts underlying the Subcontractor Claim attend to assist in presenting the Subcontractor Claim and to answer questions raised by the DRB panelists or the SCRTD's representatives.

A party's failure to comply with the DRB's hearing rules and procedures and other requirements, or use of such rules to obstruct the process, may be considered by the DRB in making its determination.

After the close of hearing on a Claim, the DRB will meet to formulate recommendations for resolution of the Claim. All DRB deliberations will be conducted in private and will be confidential.

The SCRTD Construction Liaison Engineer, or Engineer of Record for the Project will participate in all DRB proceedings and DRB panel conversations as a silent observer. This silent observer role is for observing current proceedings to implement improvements or modifications to the DRB process for future use.

Within 14 Days after the close of the hearing, the chair shall submit to the Project Manager and the Project Superintendent the DRB determination. The DRB determination need only be a majority ruling, not unanimous.

Both parties agree to absolve the DRB panelists from personal or professional liability arising from their DRB activities, as long as these activities are conducted in good faith.

The proceedings and the decision of the panel will be in accordance with the Contract documents.

The decision of the panel is final; barring any fraud, waste, abuse or mismanagement, no further appeal procedure is afforded to either party via litigation.

Bidder/Contractor Dispute Resolution Board Panelist

Name:_____

Address:_____ City:_____State:_____

Zip:_____

Email:

_____

Telephone Number:

_____

The Bidder/Contractor shall complete this form which names the Bidder/Contractor's DRB panelist. With its Bid, this form shall be uploaded by the Bidder in the form of a zip file to the "file attachment upload" tab in the Project Bids.EBSX file through Bid Express.

Failure by the Bidder to comply with this requirement of the NTC shall render the Bidder's Bid as non-responsive and its Bid shall be rejected.

Dispute Resolution Board Charter

DRB Canons

Conflict of Interest and Disclosure

Panelists shall avoid the appearance of, or any actual, conflict of interest during their term on the DRB. Panelists shall disclose, before their appointment, any interest, past or present relationship, or association that could reasonably be considered by a contracting party as likely to affect that individual's independence or impartiality. If, during the term on the DRB, a panelist becomes aware of any fact or circumstance that might reasonably be considered by a contracting party as likely to affect that individual's independence or impartiality, the panelist shall inform the other DRB panelists and disclose the matter to the contracting parties.

Confidentiality

Panelists shall ensure that information acquired during the term of the DRB remains confidential and shall not be disclosed, unless such information is already in the public domain. Any such confidential information may only be disclosed if approved by the contracting parties or if compelled by law. Panelists shall not use such confidential information for any purpose beyond the activities of the DRB.

Panelist Conduct and Communications

Panelists shall conduct all DRB activities in an expeditious, diligent, orderly, and impartial manner. Panelists shall act honestly, with integrity and without bias. There shall be no unilateral communications as between a panelist and a contracting party, except as permitted within the Dispute Resolution Board (DRB) Notice to Contractors.

DRB Procedures

All DRB meetings and hearings shall be conducted in accordance with the applicable Contract provisions and Dispute Resolution Board (DRB) Notice to Contractors, in a manner that provides procedural fairness to the contracting parties. DRB determinations shall be made expeditiously on the basis of the provisions of the Contract and the information, facts and circumstances submitted by the contracting parties.

Behavior of Panelists

Each Panelist shall strive to maintain the confidence of the parties, and thus facilitate the dispute resolution process. The following are essential behaviors of panelists.

1. Adhere to the DRB canons listed above. At the outset fully disclose all known past and present relationships with, or interests between any party to the Contract, or related parties such as Subcontractors, design professionals, construction managers and site supervisors. Immediately disclose relationships or interests discovered or established subsequent to initial disclosure.
2. Remain neutral and avoid any behavior that could lead to a perception of bias, including any ex parte communications. Panelists are not an advocate for either party.
3. Avoid all conflicts of interest and notify the parties of any actions that could be perceived as such. Have no financial interest in the Contract or in any party involved in the design or construction of the Contract. Have no discussions and make no agreements for future employment or any other business relationships while serving on the DRB.

4. Become familiar with the Contract, Plans, Specifications and other Contract requirements, such as coordination and scheduling.
5. Do not request that the parties furnish progress documents that they do not already produce in the normal course of business.
6. Make no disclosures of Project information that is not within the public domain without permission of both parties.
7. Never give advice on conduct of the work.
8. Never promote disputes or comment on the validity of disputes or other issues.

DRB Panelist Compensation

The Bidder/Contractor and SCRTD agree to the following:

- The panelists will be compensated $250.00 per hour for all DRB activities. The chair will be compensated $300.00 per hour for all DRB activities.
- All panelists will be compensated $100.00 per hour for travel time to and from their home of record to the DRB hearing.
- All panelists will be compensated $150.00 per day for hotel and meals, per diem. No partial day per diem will be compensated.
- All panelists will be compensated for mileage at a rate $0.545 per mile for travel to and from their home of record to the hearing location.
- The chair will be compensated for miscellaneous expenses, supported by invoice, necessary to conduct DRB activities such as copies, facsimile, etc.

DRB Panelist Method of Compensation

All panelists shall submit invoicing to the Bidder/Contractor Superintendent and the SCRTD Project Manager. Once approved, the Bidder/Contractor shall pay invoices in full for all DRB panelists. The SCRTD Project Manager will execute Change Orders to compensate the Bidder/Contractor for payment of SCRTD's panelist and 50% payment for the third "chair" panelist in accordance with the Dispute Resolution Board (DRB) Notice to Contractors.

Bidder/Contractor Panelist

SCRTD Panelist

Chair

Affidavit of Bidder/Contractor's Dispute Resolution Board Panelist

STATE OF NEW MEXICO

COUNTY OF _____

Unsworn Declaration Under Penalty of Perjury Conflict of Interest Statement

The undersigned, having read the Dispute Resolution Board Canon entitled "Conflict of Interest and Disclosure", does hereby state that I do not now have any direct or indirect ownership or financial interest in the Bidder/Contractor who submitted a Bid, any Construction Engineering and Inspection (CEI) consulting firm selected for this Project, or any Subcontractor or Supplier for the Project. I affirm and state that except for services as a DRB panelist on other SCRTD Projects, that I have not for a period of two years prior to this construction Contract been an employee, Subcontractor, or consultant to the Bidder/Contractor, the CEI consulting firm selected for this Project, any Subcontractor or Supplier for the Project, and that during the term of the Contract I shall not become so involved.

If during the term of the Contract, I become aware that my employer becomes involved in the Contract as a CEI, Subcontractor or Supplier, I agree to immediately give notice to the SCRTD and the Bidder/Contractor. Upon receiving such notification, the SCRTD or the Contractor may, within ten (10) Days, give notice that I am no longer acceptable as a DRB panelist and I shall resign my position as such and a new DRB panelist shall be selected. In no event, shall a DRB panelist participate in a hearing by the DRB of a dispute involving a firm by which he is employed.

I declare under penalty of perjury under the laws of the United States of America and the state of New Mexico that the foregoing is true and correct.

Executed on the_____day of_____, 20 _____

Printed Name

Signature

With its Bid, this form shall be uploaded by the Bidder in the form of a zip file to the "file attachment upload" tab in the Project Bids.EBSX file through Bid Express.

Failure by the Bidder/Contractor to comply with this requirement of the NTC shall render the Bid as non- responsive and its Bid shall be rejected.

Affidavit of SCRTD's Dispute Resolution Board Panelist

STATE OF NEW MEXICO

COUNTY OF _____

Unsworn Declaration Under Penalty of Perjury Conflict of Interest Statement

The undersigned, having read the Dispute Resolution Board Canon entitled "Conflict of Interest and Disclosure", does hereby state that I do not now have any direct or indirect ownership or financial interest in the Bidder/Contractor who submitted a Bid, any Construction Engineering and Inspection (CEI) consulting firm selected for this Project, or any Subcontractor or Supplier for the Project. I affirm and state that except for services as a DRB panelist on other SCRTD Projects, that I have not for a period of two years prior to this construction Contract been an employee of SCRTD, Bidder/Contractor, Subcontractor, or consultant to the Bidder/Contractor, the CEI consulting firm selected for this Project, any Subcontractor or Supplier for the Project, and that during the term of the Contract I shall not become so involved.

If during the term of the Contract, I become aware that my employer becomes involved in the Contract as a CEI, Subcontractor or Supplier, I agree to immediately give notice to the SCRTD and the Bidder/Contractor. Upon receiving such notification, the SCRTD or the Contractor may, within ten (10) Days, give notice that I am no longer acceptable as a DRB panelist and I shall resign my position as such and a new DRB panelist shall be selected. In no event, shall a DRB panelist participate in a hearing by the DRB of a dispute involving a firm by which he is employed.

I declare under penalty of perjury under the laws of the United States of America and the state of New Mexico that the foregoing is true and correct.

Executed on the_____day of_____, 20 _____

_____

Printed Name

_____

Signature

This Affidavit shall be provided to the Project Manager and on or before the date of the Pre-Construction Conference and shall be kept on file with SCRTD Plans Specifications and Estimates Bureau.

Affidavit of Dispute Resolution Board Chair

STATE OF NEW MEXICO

COUNTY OF _____

Unsworn Declaration Under Penalty of Perjury Conflict of Interest Statement

The undersigned, having read the Dispute Resolution Board Canon entitled "Conflict of Interest and Disclosure", does hereby state that I do not now have any direct or indirect ownership or financial interest in the Bidder/Contractor who submitted a Bid, any Construction Engineering and Inspection (CEI) consulting firm selected for this Project, or any Subcontractor or Supplier for the Project. I affirm and state that except for services as a DRB panelist on other SCRTD Projects, that I have not for a period of two years prior to this construction Contract been an employee, Subcontractor, or consultant to the Bidder/Contractor, the CEI consulting firm selected for this Project, any Subcontractor or Supplier for the Project, and that during the term of the Contract I shall not become so involved.

If during the term of the Contract, I become aware that my employer becomes involved in the Contract as a CEI, Subcontractor or Supplier, I agree to immediately give notice to the SCRTD and the Bidder/Contractor. Upon receiving such notification, the SCRTD or the Contractor may, within ten (10) Days, give notice that I am no longer acceptable as a DRB panelist and I shall resign my position as such and a new DRB panelist shall be selected. In no event, shall a DRB panelist participate in a hearing by the DRB of a dispute involving a firm by which he is employed.

I declare under penalty of perjury under the laws of the United States of America and the state of New Mexico that the foregoing is true and correct.

Executed on the _____ day of _____, 20 _____

_____

Printed Name

_____

Signature

This Affidavit shall be provided to the Project Manager no later than five (5) days after accepting appointment and shall be kept on file with SCRTD Plans Specifications and Estimates Bureau.

Chief Engineer
January 1, 2019

NOTICE TO CONTRACTORS

Itemized List – Solar Array & Microgrid

CN E100480

An itemized list is required on this Project. The total Bid Item Unit Price for Solar Array & Microgrid shall reflect all costs associated with the completion of the itemized list.

The Bidder shall submit a completed Itemized List Form, attached to this Notice to Contractors ("NTC"), before Bid Opening. The Bidder shall submit the Itemized List form with bid submittal.

Failure to comply with this NTC shall result in the Bidder's Bid being rejected as non-responsive.

If quantities are increased or decreased, the Itemized List Form will be used to determine payment to the Contractor for the quantities of actual Work Accepted.

The total Lump Sum costs derived from the completed itemized list shall be entered in the Bid Schedule for Bid Item Solar Array & Microgrid (LUMP SUM).

Itemized List Form

CN E100480

Bidder: _____

LINE	DESCRIPTION	UNITS	EST. QTY.	UNIT PRICE	PRICE
1	2" PVC SCH 40, 24" BURY DC INTERCONNECT CABLES. SEE SHEET 1-5.	LF	223		
2	UNDERGROUND DC CABLES FROM THE RESPECTIVE SOLAR ARRAY TO THE RESPECTIVE INVERTER. SEE SHEET 1-5.	LS	1		
3	2" PVC SCH 40, BURY 24" FOR INTERCONNECT CONTROL WIRES. SEE SHEET 11-3.	LF	322		
4	INTERCONNECT CONTROL WIRES, SEE SHEET 11-3.	LF	360		
5	2" PVC SCH 40, BURY 24" FOR FEEDER TO PV METER SEE SHEET 11-3.	LF	322		
6	4-3/0 CU, 1-#4 CU G. SEE SHEET 11-3.	LF	360		
7	2" PVC SCH 40, BURY 24" FOR FEEDER TO ATS SEE SHEET 11-3.	LF	322		
8	4-3/0 CU, 1-#4 CU G. SEE SHEET 11-3.	LF	360		
9	2" PVC SCH 40, BURY 24" FOR INTERCONNECT CONTROL WIRES. SEE SHEET 11-4	LF	273		
10	INTERCONNECT CONTROL WIRES, SEE SHT 11-4	LF	293		
11	2" PVC SCH 40, BURY 24" FOR FEEDER TO PV METER SEE SHEET 11-4	LF	273		
12	4-3/0 CU, 1-#4 CU G. SEE SHEET 11-4	LF	293		
13	2" PVC SCH 40, BURY 24" FOR FEEDER TO ATS SEE SHEET 11-4	LF	273		
14	4-3/0 CU, 1-#4 CU G. SEE SHEET 11-4	LF	293		
15	60 PV MODULES ATTACHED TO A GROUND MOUNT METAL FRAME. A COMPLETE METAL FRAME SYSTEM TILTED 28 DEGREES WITH ALL BOLTED CONNECTIONS. FRAME IS ANCHORED WITH MULTIPLE HELIX ANCHORS. GROUNDING WIRING AND CONNECTIONS. ALL OTHER MISC. ITEMS	EA.	8		
16	30 PV MODULES ATTACHED TO A GROUND MOUNT METAL FRAME. A COMPLETE METAL FRAME SYSTEM TILTED 28 DEGREES WITH ALL BOLTED CONNECTIONS. FRAME IS ANCHORED WITH MULTIPLE HELIX ANCHORS. GROUNDING WIRING AND CONNECTIONS. ALL OTHER MISC. ITEMS	EA.	1		

17	DEMOLITION OF CONDUIT, WIRE AND METER AT TRANSFORMER T-A. NEW SERVICE LATERAL CONDUIT AND WIRE, BURY 24". NEW ELECTRICAL GEAR, CONDUIT AND WIRE AT SOLAR SYSTEM A ELECTRICAL SERVICE. NEW METER CAN AT CT ENCLOSURE, NEW CT ENCLOSURE, NEW PV METER CAN, NEW GUTTER, NEW DISCONNECTS 200A AND 400A. NEW ATS FOR BESS. NEW SERVICE ENTRANCE GROUND. SEE SHEET 11-3. ALL OTHER MISC. ITEMS.	LS	1		
18	DEMOLITION OF CONDUIT, WIRE AND METER AT TRANSFORMER T-B. NEW SERVICE LATERAL CONDUIT AND WIRE, BURY 24". NEW ELECTRICAL GEAR, CONDUIT AND WIRE AT SOLAR SYSTEM B ELECTRICAL SERVICE. NEW METER CAN AT CT ENCLOSURE, NEW CT ENCLOSURE, NEW PV METER CAN, NEW GUTTER, NEW DISCONNECTS 200A AND 400A. NEW ATS FOR BESS. NEW SERVICE ENTRANCE GROUND. SEE SHEET 11-4. ALL OTHER MISC. ITEMS.	LS	1		
19	SOLAR DC COMBINER, INVERTER, AC COMBINER BOX, MICROGRID CONTROLLER, BATTERY STORAGE WITH CONCRETE PAD. INTERCONNECT CONDUITS AND WIRES FOR DC CONNECTIONS. INTERCONNECT CONDUITS AND WIRES FOR AC CONNECTIONS. INTERCONNECT CONDUIT AND WIRES FOR COMMUNICATIONS AND CONTROLS. TERMINATIONS AND PROGRAMMING. SEE SHEET 11-3. ALL OTHER MISC. ITEMS.	LS	1		
20	SOLAR DC COMBINER, INVERTER, AC COMBINER BOX, MICROGRID CONTROLLER, BATTERY STORAGE WITH CONCRETE PAD. INTERCONNECT CONDUITS AND WIRES FOR DC CONNECTIONS. INTERCONNECT CONDUITS AND WIRES FOR AC CONNECTIONS. INTERCONNECT CONDUIT AND WIRES FOR COMMUNICATIONS AND CONTROLS. TERMINATIONS AND PROGRAMMING. SEE SHEET 11-4. ALL OTHER MISC. ITEMS.	LS	1		
663213 – Solar System (LUMP SUM) = (Sum of Line 1 thru 20)					$

Notice to Contractors

July 31, 2025

YOU ARE HEREBY ADVISED OF THE FOLLOWING: Any reference made to the NEW MEXICO DEPARTMENT OF TRANSPORTATION (NMDOT) shall be replaced by the SOUTH CENTRAL REGIONAL TRANSIT DISTRICT (SCRTD).

Chief Engineer
June 20, 2019

NOTICE TO CONTRACTORS

Schedule Format

CN E100480

In lieu of a critical path method Baseline Schedule format the schedule format for this Project shall be a bar graph Baseline Schedule.

The Baseline Schedule shall conform to the 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction, Section 108.3.2.2 – "Bar Graph Baseline Schedule". This Work shall be considered Incidental.

Office of General Counsel
January 1, 2019

NOTICE TO CONTRACTORS

Virtual Mandatory Pre-Bid Conference

CN E100480

As a condition to submitting a Bid, prospective Bidders must attend a Virtual Mandatory Pre-Bid Conference. The Virtual Mandatory Pre-Bid Conference will be held on **October 22, 2025, beginning promptly at 10:00 a.m. local prevailing time.** At 10:00 a.m., the start of the Virtual Mandatory Pre-Bid Conference will be announced. Any organization who logs-in after 10:05 a.m. who do not physically remain logged-in for the entirety of the Mandatory Pre-Bid Conference will not be compliant with this Notice to Contractors ("NTC"). Attendance at the Virtual Mandatory Pre-Bid Conference will be evidenced by the recorded meeting.

The purpose of the Mandatory Pre-Bid Conference is to discuss:

1. The scope of the project.
2. Discuss compliance with the Contract manual
3. Discuss the role of the contractor in the application to El Paso Electric
4. Training and Warranties
5. Project Close out.

The Virtual Mandatory Pre-Bid Conference will be held at:

Topic: Solar Array Virtual Mandatory Pre-BID Meeting
Time: October 22, 2025 10:00 AM Mountain Time (US and Canada)
Join Zoom Meeting
https://us06web.zoom.us/j/87592156553?pwd=MLLWVYkUcH9Gbub73w0hArNCGz86bs.1

Meeting ID: 875 9215 6553
Passcode: 752259
One tap mobile
+13462487799,,87592156553#,,,,*752259# US (Houston)
+16694449171,,87592156553#,,,,*752259# US

Project related questions raised before or after the Mandatory Pre-Bid Conference shall be directed to the Chief Engineer pursuant to the 2019 Edition of the Standard Specifications for Highway and Bridge Construction Section 102.7.1 (1), "Requests for Contract Interpretation".

The Bidder will not be compliant with this NTC and its Bid shall be rejected as non-responsive if the Bidder or Bidders representative does not attend this Virtual Mandatory Pre-Bid Conference on time and remain for its entirety.

NOTICE TO CONTRACTORS

Build America, Buy America

CN E100480

The Federal funding contribution for the project is less than $500,000.

Since the project has less than $500,000 of federal money, Federal BA/BABA requirements are not applicable to this project. Contractor may bid the project without BA/BABA compliant material.

If additional federal funding is acquired for this project and ends up being more than $500,000 then BA/BABA may be applicable. The contractor will be notified in writing by Addena or Change Order if the Federal funding exceeds $500,000.

As information: there are Federal waivers for solar installations that exempt solar installations from BA/BABA. Currently these waivers apply for equipment installed by June 30, 2026.

NOTICE TO CONTRACTORS

State Wage Rate

CN E100480

The State Wage Rate NM20250045 03/07/2025 for Construction Type: Building shall be used for CNE100480.

"General Decision Number: NM20250045 03/07/2025

Superseded General Decision Number: NM20240045

State: New Mexico

Construction Type: Building
BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

County: Dona Ana County in New Mexico.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	02/28/2025
2	03/07/2025

ASBE0076-008 01/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 36.66	11.83

CARP1245-006 06/01/2018

	Rates	Fringes
Carpenter Excludes Drywall Hanging	$ 24.08	10.79

* PLUM0412-015 01/02/2025

	Rates	Fringes
PIPEFITTER	$ 43.07	16.60

* PLUM0412-018 01/02/2025

	Rates	Fringes
PLUMBER	$ 43.07	16.60

SHEE0049-005 01/01/2024

	Rates	Fringes
Sheet Metal Worker (Includes HVAC Duct Installation)	$ 37.50	18.51

* SUNM2016-002 09/26/2018

	Rates	Fringes
CARPENTER (Drywall Hanging Only)	$ 19.64	6.20
CEMENT MASON/CONCRETE FINISHER	$ 18.93	5.85
ELECTRICIAN	$ 29.26	8.98
IRONWORKER, STRUCTURAL	$ 28.00	8.21
LABORER: Common or General	$ 16.49 **	4.54
LABORER: Mason Tender - Cement/Concrete	$ 17.60 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 25.73	4.51
PAINTER (Brush and Roller)	$ 16.60 **	3.88

PAINTER: Spray.....$ 16.51 ** 2.14

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers.

0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took

effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

SECTION 6

Standard Notices to Contractors

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2019 Standard Drawings for Highway and Bridge Construction Updates (10/3/23)

April 17, 2023

NOTICE TO CONTRACTORS

Approved Products List

Products used on federally funded Projects that are permanently incorporated into the Project shall be approved by the New Mexico Department of Transportation's ("NMDOT") product evaluation program and listed on the NMDOT's approved products list ("APL").

The Bidder's Bid Item Unit Price for the Project shall be deemed to rely on the use of the products listed on the APL. The Contractor shall comply with all APL procedures required by the hyperlink below:

http://dot.state.nm.us/content/nmdot/en/APL.html

As used in this Notice to Contractors, "product" means any manufactured item, Material, traffic operational device or other feature used in the maintenance or construction of this Project.

Approval to use a non-APL product may be granted by the Project Manager on a Project specific basis with written concurrence from the NMDOT Product Evaluation Program Engineer. Project specific approvals are for said Project and do not constitute placement of said product on the NMDOT APL. When requesting to use a non-APL product on a Project, the Contractor shall submit a written request to include a reasonable justification as to why the manufacturer could not acquire product approval through the conventional NMDOT product evaluation process. For products currently not on the APL and prior to a project specific approval being granted, the Project Manager shall ensure that the Contractor and/or manufacturer has submitted an application to be evaluated consistent with the processes described in the above hyperlink.

If a non-APL product is used by the Contractor without written approval of the Project Manager, the Contractor shall remove any non-APL product. Removal and replacement will be made at the sole expense of the Contractor if a non-APL Product is used. Any disruption to the Project schedule related to the Contractor's use of a non-APL Product is solely the Contractor's responsibility and no additional Contract Time will be granted.

NOTICE TO CONTRACTORS

Buy America

The following clarifies the 2019 Edition of the New Mexico Department of Transportation's (NMDOT) Standard Specifications for Highway and Bridge Construction Section 106.12 - "Buy America Requirements" which requires the Contractor to provide Materials that comply with the Buy America requirements in 23 CFR § 635.410.

Previous interpretations of the Buy America requirements allowed exclusions for certain steel and iron manufactured products that contained less than 90% steel or iron components. Previous interpretations also allowed exclusions for miscellaneous steel and iron components, subcomponents and hardware. These exclusions no longer apply.

Since these exclusions no longer apply, the Contractor shall provide certification proving that all steel or iron Materials were manufactured in the United States before performing Work that uses steel or iron Materials. Additionally, the Contractor shall provide certification that all coatings on the steel or iron Materials were applied in the United States. If these certifications are not provided, the NMDOT may take any remedies available under the Contract.

Other exclusions to the Buy America requirements remain in effect, including but not limited to, minimal use of foreign steel and iron Materials. The exclusion allows the Contractor to use foreign steel or iron Material that does not exceed one-tenth of one percent (0.1%) of the Total Bid Amount or that does not exceed $2,500.00 whichever is greater. To comply with the minimal use exclusion, the Contractor shall provide to the NMDOT Project Manager invoices showing the cost of the foreign steel or iron Material that cannot be certified as delivered to the Project.

NOTICE TO CONTRACTORS

Davis Bacon Act (DBA) Conformance Requirements

Additional Classification and Rate Request:

As indicated in the Advertisement for this Contract, the higher wage rate shall govern in the event of a discrepancy between the minimum wage rates for the U.S. Department of Labor ("USDOL") and the Department of Workforce Solutions ("DWS"). **Additionally, the Contractor shall submit a completed conformance USDOL standard form 1444, attached, to the Project Manager ("PM") when the Contractor or Subcontractor, at any tier, intends to use a DBA classification NOT listed on the federal wage decision incorporated into this Contract.**

Submissions of the standard form 1444 shall be in accordance with the 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction, Section 108.2 – "Notice to Proceed and Pre-Construction Conference" or a minimum of 10 Days prior to the planned use of the classification.

Upon submittal of the standard form 1444 the Contractor shall pay the DWS rate for the classification(s) listed on the standard form 1444 until notified by the PM of the USDOL decision.

If the USDOL decision is equal to or higher than the DWS rate being paid by the Contractor, the Contractor and PM shall utilize the newly established DBA classification in LCPtracker.

USDOL Classification Notes in LCPtracker:

When the DWS rate is higher than the USDOL rate, the Contractor and/or Subcontractor, at any tier, shall indicate in the LCPtracker "notes" section, for each employee, the corresponding USDOL classification. This shall be completed by the Contractor and/or Subcontractor, at any tier, when the employee's time is being entered.

During the course of a Day, when an employee switches between multiple USDOL classification(s) that are within the DWS trade classification group, the Contractor and/or Subcontractor, at any tier, shall provide an hourly breakdown of the time worked in each USDOL classification in the "notes" section of LCPtracker when the employee's time is being entered.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND RATE

CHECK APPROPRIATE BOX
☐ SERVICE CONTRACT
☐ CONSTRUCTION CONTRACT

OMB Control Number: 9000-0066
Expiration Date: 5/31/2025

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 U.S.C. § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0066. We estimate that it will take .5 hours to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: U.S. General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

INSTRUCTIONS: THE CONTRACTOR SHALL COMPLETE ITEMS 3 THROUGH 16, KEEP A PENDING COPY, AND SUBMIT THE REQUEST, IN QUADRUPLICATE, TO THE CONTRACTING OFFICER.

1. **TO:** ADMINISTRATOR, WAGE AND HOUR DIVISION U.S. DEPARTMENT OF LABOR WASHINGTON, DC 20210	2. **FROM:** *(REPORTING OFFICE)*
3. CONTRACTOR	4. DATE OF REQUEST

5. CONTRACT NUMBER	6. DATE BID OPENED *(SEALED BIDDING)*	7. DATE OF AWARD	8. DATE CONTRACT WORK STARTED	9. DATE OPTION EXERCISED (If *APPLICABLE) (SERVICE CONTRACT ONLY)*

10. SUBCONTRACTOR *(IF ANY)*

11. PROJECT AND DESCRIPTION OF WORK *(ATTACH ADDITIONAL SHEET IF NEEDED)*

12. LOCATION (*CITY, COUNTY, AND STATE)*

13. IN ORDER TO COMPLETE THE WORK PROVIDED FOR UNDER THE ABOVE CONTRACT, IT IS NECESSARY TO ESTABLISH THE FOLLOWING RATE(S) FOR THE INDICATED CLASSIFICATION(S) NOT INCLUDED IN THE DEPARTMENT OF LABOR DETERMINATION

NUMBER: _____ DATED: _____

a. LIST IN ORDER: PROPOSED CLASSIFICATION TITLE(S); JOB DESCRIPTION(S); DUTIES; AND RATIONALE FOR PROPOSED CLASSIFICATIONS *(Service contracts only)*	b. WAGE RATE(S)	c. FRINGE BENEFITS PAYMENTS
(Use reverse or attach additional sheets, if necessary)		

14. SIGNATURE AND TITLE OF SUBCONTRACTOR REPRESENTATIVE *(IF ANY)*	15. SIGNATURE AND TITLE OF PRIME CONTRACTOR REPRESENTATIVE	
16. SIGNATURE OF EMPLOYEE OR REPRESENTATIVE	TITLE	CHECK APPROPRIATE BOX-REFERENCING BLOCK 13. ☐ **AGREE** ☐ **DISAGREE**

TO BE COMPLETED BY CONTRACTING OFFICER *(CHECK AS APPROPRIATE - SEE FAR 22.1019 (SERVICE CONTRACT LABOR STANDARDS) OR FAR 22.406-3 (CONSTRUCTION WAGE RATE REQUIREMENTS))*

☐ THE INTERESTED PARTIES AGREE AND THE CONTRACTING OFFICER RECOMMENDS APPROVAL BY THE WAGE AND HOUR DIVISION. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.

☐ THE INTERESTED PARTIES CANNOT AGREE ON THE PROPOSED CLASSIFICATION AND WAGE RATE. A DETERMINATION OF THE QUESTION BY THE WAGE AND HOUR DIVISION IS THEREFORE REQUESTED. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.

(Send 3 copies to the Department of Labor)

SIGNATURE OF CONTRACTING OFFICER OR REPRESENTATIVE	TITLE AND COMMERCIAL TELEPHONE NUMBER	DATE SUBMITTED

NOTICE TO CONTRACTORS

Federal Requirements

1. TITLE VI
2. DISADVANTAGED BUSINESS ENTERPRISE (DBE)
3. SUBCONTRACTOR PROMPT PAYMENT PROVISIONS
4. REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS AND SUPPLEMENTS
5. SUPPLEMENTAL EEO REQUIREMENTS
6. INDIAN PREFERENCE
7. NMDOT ON THE JOB TRAINING/SUPPORTIVE SERVICES (“OJT/SS”) PROGRAM
8. WAGE RATES
9. LABOR REPORTING AND SUBMISSION OF WEEKLY PAYROLLS
10. TITLE VI ASSURANCES APPENDIX A AND APPENDIX E

References made to the New Mexico Department of Transportation (“NMDOT”) web page can be accessed through the following link: https://dot.nm.gov

1. TITLE VI

The text United States Department of Transportation (USDOT) Order No. 1050.2A has been excerpted for this section with minimal modification by the NMDOT.

The Contractor (herein referred to as the "Recipient"), HEREBY AGREES THAT, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through the NMDOT, is subject to and will comply with the following:

Statutory/Regulatory Authorities

Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); 49 C.F.R. Part 21 (entitled Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation—Effectuation Of Title VI Of The Civil Rights Act Of 1964); 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including NMDOT.

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Nondiscrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these nondiscrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

"The NMDOT, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively insure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award".

The NMDOT's Title VI Assurances, Appendices A and E are included in Section X at the end of this Notice to Contractors ("NTC").

For further information, contact the Title VI coordinator for the NMDOT through the following link: http://dot.state.nm.us/content/nmdot/en/OEOP.html.

2. DISADVANTAGED BUSINESS ENTERPRISE ("DBE")

Per 49 C.F.R. § 26.13(b) (2014), the Contract NMDOT signs with the Contractor (and each Subcontract the Contractor signs with a Subcontractor) must include the following assurance:

"The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) withholding of monthly progress payments;
(2) assessing sanctions;
(3) liquidated damages; and/or
(4) disqualifying the contractor from future bidding as non-responsible."

For the purposes of the assurance, DOT-assisted Contracts means Contracts that receive federal funding and recipient means the NMDOT.

Terms and Definitions

Terms and Definitions contained in 49 C.F.R. § 26.5 are incorporated in this NTC by reference. Terms and definitions in the same control over terms that conflict with the terms and definitions in the 2014 Edition of the NMDOT Standard Specifications for Highway and Bridge Construction ("Standard Specifications") Section – 101.4 "Terms and Definitions".

Pre-Award Procedures

Projects that have DBE goals established in the Advertisement are subject to race-conscious measures. When a DBE goal is established the following DBE form and NTC, or evidence of the Bidder's good faith efforts, are required in order for the Bid to be considered responsive:

1. Disadvantaged Business Enterprise Goal Form A-585 ("A-585"); and

2. NTC Disadvantaged Business Enterprise (DBE) Bidder's Commitment and DBE's Confirmation Form A-644 ("A-644").

In the event the Bidder is also a certified DBE Contractor, and intends to self-perform a portion of the Work, the Bidder shall list itself and any other DBE it will use on Form A-585. Failure to comply with this requirement shall render the Bid non-responsive.

Pre-Award Bidder's Good Faith Efforts

When a Project has an established DBE goal, a Bidder may meet the requirements even if it doesn't meet the goal through documenting adequate good faith efforts. This means that the Bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful. The documentation of good faith efforts shall include, but is not limited to, copies of each DBE and non–DBE quote submitted to the Bidder when a non–DBE was selected over a DBE for Work on the Contract.

Per 49 C.F.R. § 26.53 (b)(3) (2014) and 49 C.F.R. § 26 Appendix A the NMDOT has the responsibility to make a fair and reasonable judgment as to whether a Bidder, that did not meet the goal, made adequate good faith efforts.

The below contains a list of types of actions, which the NMDOT may consider as part of the Bidder's good faith efforts to obtain DBE participation. This is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive, as other factors or types of efforts may be relevant in appropriate cases. The following is a list of the type of actions, and documentation, which the NMDOT will consider as part of the Bidder's good faith efforts to obtain DBE participation:

1) The Bidder's copies of each DBE and non-DBE subcontractor quote submitted to the Bidder when a non-DBE subcontractor was selected over a DBE for Work on the Contract to review whether DBE prices were substantially high; and the NMDOT may contact the DBEs listed on the Bidder's List of Quoters submitted by the Bidder to inquire whether DBE primes were contacted by the Bidder. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under this NTC or rule;
2) The Bidder's solicitation of the interest of DBEs as early in the acquisition process as possible and as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the Subcontract. The Bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow-up initial solicitations;
3) The Bidder's selection of portions of the Work to be performed by the DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out Contract Work items into economically feasible units to facilitate DBE participation even when the Bidder might otherwise prefer to perform these Work items with its own forces;
4) The Bidder's negotiations in good faith with interested DBEs. It is the Bidder's responsibility to make a portion of the Work available to DBE subcontractors, sub-consultants and Suppliers and to select those portions of the Work or material needs consistent with the available DBE subcontractors, sub-consultants and Suppliers, so as to facilitate DBE participation. Evidence of such negotiations includes the names, addresses and telephone numbers of DBEs that were considered, a description of the information provided regarding the construction plans and specifications for the Work selected

for subcontracting or requirements of Work, and evidence as to why additional agreements could not be reached for DBEs to perform the Work; and,

5) The Bidder's rejection of DBEs as being unqualified. The Bidder shall not reject a DBE as being unqualified without sound reasons based on a thorough investigation of their capabilities. The DBE's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non- solicitation of Bids in the Bidder's efforts to meet the Project goal. Another practice considered insufficient good faith effort is the rejection of the DBE because its' quotations for Work were not the lowest received. However, nothing in this paragraph will be considered to require the Bidder to accept unreasonable quotes to satisfy the Contract goal.

If the NMDOT determines that the Bidder has failed to make adequate good faith efforts to meet the DBE goal requirements, the NMDOT shall reject the Bid as non-responsive. The Bidder may dispute this determination and rejection of the Bid through the procedures in Standard Specification Section - 103.3 "Bidding Dispute Resolution Procedures".

Post-Award

Counting DBE Participation Toward Goals

This section in no way alters the obligations in Standard Specification Section - 108.1 "Subcontracting" and is only used to determine DBE participation levels for each Bidder. The Contractor must still comply with Standard Specification Section - 108.1 and perform with its own organization at least 40% of the Work based on the Total Bid Amount.

Only the value of the Work actually performed by the DBE will be counted towards DBE Project goals. DBE participation shall be credited as follows:

1. Count the entire amount of that portion of the Contract Work that is performed by the DBE's own forces. Include the cost of supplies and Materials obtained by the DBE for the Work including supplies purchased or equipment leased by the DBE. Supplies and equipment purchased or leased by a DBE from a prime contractor shall not be counted toward the DBE Project goal.

2. Count the entire amount of fees or commissions charged by a DBE for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required of the performance of the Contract, toward DBE goals, provided NMDOT determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.

3. When a DBE subcontracts part of its Work to another firm, the value of the subcontracted Work may be counted toward DBE goals only if the DBE's Subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE does not count toward DBE goals.

When a DBE performs as a participant in a joint venture, count the portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work of the Contract that the DBE performs with own forces toward DBE goals.

The NMDOT counts expenditures to a DBE toward DBE goals only if the DBE is performing a commercially useful function ("CUF") on the Contract.

1. A DBE performs a CUF when it is responsible for execution of the Work of the Contract and is carrying out its responsibilities by actually performing, managing, and supervising the Work involved. To perform a CUF, the DBE must also be responsible, with respect to Materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the Material and installing (where applicable) and paying for the Material itself.

2. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, Contract, or Project through which funds are passed in order to obtain the appearance of DBE participation.

3. If a DBE Contractor, Subcontractor, at any tier, or Supplier does not perform or exercise responsibility for at least 30% of the total cost of its Contract with its own forces, or the DBE subcontracts a greater portion of the Work of a Contract than would be expected on the basis of normal industry practice for the type of Work involved, it will be presumed that the DBE is not performing a CUF.

4. When a DBE is presumed not to be performing a CUF as provided in paragraph 3 of this section, the DBE may present evidence to rebut this presumption.

5. Decisions concerning CUF matters are not administratively appealable to USDOT.

DBE Trucking

Per the Standard Specification Section 108.1 "Subcontracting"…"A Trucker is not a Subcontractor unless the Contractor is using the Trucker to meet the DBE requirement associated with the Project". The following factors shall be used to determine whether DBE trucking Subcontractors are performing a CUF:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular Contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

2. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the Contract.

3. The DBE receives credit for the total value of the transportation services it provides on the Contract using trucks it owns, insures, and operates using drivers it employs.

4. The DBE may lease trucks from another DBE, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract.

5. The DBE may also lease trucks from a non-DBE, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the Contract provided by DBE-owned trucks or leased trucks with

DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement.

6. The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

7. For purposes of this DBE trucking section a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

DBE Supplying Materials

1. If the Materials or supplies are obtained from a DBE manufacturer, count 100 % of the cost of the Materials or supplies toward the DBE goal. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises the Materials, supplies, articles, or Equipment required under the Contract.

2. If the Materials or supplies are purchased from a DBE regular dealer, count 60 % of the cost of the Materials or supplies toward DBE goals. A DBE regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the Materials, supplies, articles or Equipment required under the Contract are bought, kept in stock and regularly sold or leased to the public in the usual course of business. The DBE regular dealer must be an established regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

   A DBE may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as required in paragraph 1 of this section if the DBE both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on ad hoc or contract-by-contract basis.

   Packagers, brokers, manufacturers' representatives, or other person who arrange or expedite transactions are not regular dealers for the purpose of paragraph 2 of this section.

3. With respect to Materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, count the entire amount of fees and commissions charged for assistance in the procurement of the Materials and supplies, or fees or transportation charges for the delivery of Materials and supplies required on a job site, toward DBE goals, provided the NMDOT determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the Materials or supplies themselves is not creditable toward DBE goals.

   Credit for Work performed shall not be counted toward the DBE project goal until the amount committed has been paid to the DBE.

Pre-Award Substitution/Replacement and Post-Award Termination of DBE for Projects Having a DBE Goal

The Contractor shall use the DBE listed on the A-585 and confirmed on the A-644 to perform the specific Work identified. The Contractor shall not substitute, replace or terminate a DBE listed on the A-585 and confirmed on the A-644 (or an approved substitute DBE) without the prior written consent of NMDOT. The NMDOT considers it an improper DBE substitution, replacement or termination when a Contractor performs Work originally designated for a DBE with its own forces or those of an affiliate, or with a non-DBE, or with a substitute DBE. Unless NMDOT consent is provided, the Contractor shall not be entitled to any payment for Work or Materials unless it is performed by the listed DBE.

NMDOT will provide written consent to the termination request only if NMDOT agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate the DBE. For purposes of this paragraph, good cause includes the following circumstances:

1. The listed DBE fails or refuses to execute a written Contract;

2. The listed DBE fails or refuses to perform the Work consistent with normal industry standards, provided, however, that good cause does not exist if the failure or refusal to perform results from the bad faith or discriminatory action of the Contractor;

3. The listed DBE fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;

4. The listed DBE becomes bankrupt, insolvent, or exhibits credit unworthiness;

5. The listed DBE is ineligible to Work on public works projects because of suspension or debarment proceedings pursuant to 26 CFR Parts 180, 215 or 1200 or applicable state law;

6. The listed DBE is not a responsible Contractor;

7. The listed DBE voluntarily withdraws from the Project and provides to NMDOT written notice of its withdrawal;

8. The listed DBE is ineligible to receive DBE goal credit for the type of Work required;

9. A DBE owner dies or becomes disabled with the result that the listed DBE is unable to complete its Work on the Project; or

10. Other documented good cause that NMDOT determines compels the termination of the DBE. Provided that good cause does not exist if the Contractor seeks to terminate a DBE it relied on to obtain the Contract so that the Contractor can self-perform the Work for which the DBE was engaged or so that the Contractor can substitute another DBE or non-DBE after Contract Award.

Before seeking concurrence from the NMDOT to substitute, replace or terminate a DBE (or an approved substitute DBE) the Contractor must provide the DBE written notice including the reason of its intent to

substitute, replace or terminate and give the DBE 5 Days to respond to the Contractor's notice. If required in a particular case as a matter of public necessity the NMDOT may allow a response period shorter than 5 Days. The DBE in response to the notice may provide the Contractor and NMDOT with the reasons, if any, why it objects to the proposed substitution, replacement or termination and why NMDOT should not approve the Contractor's request.

After receipt and review of the DBE response the NMDOT will provide a written response to the Contractor's request. NMDOT's decision is not appealable to USDOT.

After an approved termination of a DBE the Contractor shall make good faith efforts to subcontract with a substitute DBE which can perform the same type of work on the Project as the substituted, replaced or terminated DBE or to subcontract with a replacement DBE which can perform other types of work remaining on the Project. The good faith efforts shall be documented by the Contractor. The NMDOT may request a copy of the documented good faith efforts and the Contractor shall submit the same in 7 Days, which may be extended to an additional 7 Days at the request of the Contractor. The NMDOT will provide a written determination stating whether or not good faith efforts have been demonstrated. The Contractor may refer to Appendix A of 49 C.F.R. § 26 for guidance on good faith efforts.

NMDOT may allow a DBE contract goal waiver, adjust the DBE goal, or assess construction contract liquidated damages or design contract liquidated damages as may be appropriate, depending on the individual project's overall circumstances. NMDOT's decision to waive or adjust the contract goal is not appealable to USDOT.

Record Keeping Requirements

The Contractor shall keep such records as necessary to ensure compliance with its DBE utilization obligations, in accordance with Standard Specification Section - 107.28 "Contractor Records".

Compliance Procedures

The Contractor is solely responsible and obligated to ensure DBE compliance at all tiers until the final payment is made in accordance with Standard Specification Section - 109.10 "Project Closure".

If it is found that the Contractor or Subcontractor at any tier is not in compliance with this NTC and DBE program, NMDOT will notify the non-compliant party in writing. Failure to be compliant is a material breach of the Contract and may result including, but not limited to, the NMDOT exercising the remedies below. The NMDOT may conduct a compliance conference with the non-compliant party or parties to discuss the area(s) of non-compliance. In the event that the non-compliant party or parties fails or refuses to perform in compliance the NMDOT will send the non-compliant party or parties a "Notice of Non-Compliance" containing a deadline for the compliance. If the non-compliant party becomes compliant after the "Notice of Non-Compliance" the NMDOT will rescind the "Notice of Non-Compliance" and notify the party or parties. If the deficiencies are not corrected, NMDOT will initiate administrative action against the non-compliant party or parties, which may include but not be limited to:

1. Termination of the Contract;

2. Withholding of monthly progress payments;

3. Initiation of appropriate suspension or debarment proceedings;

4. Referral of any unlawful actions to the appropriate enforcement agencies; or

5. Other actions as appropriate, at the discretion of NMDOT.

3. SUBCONTRACTOR PROMPT PAYMENT PROVISIONS

This NTC does not alter the sole discretion of the NMDOT to make good cause determinations concerning Contractor prompt payment matters.

To ensure that all obligations to promptly pay Subcontractors are met Contractors shall pay all Subcontractors, Suppliers and Fabricators their respective Subcontract amount by electronic transfer, if available, for NMDOT undisputed Accepted Work within the timeframes specified in the Standard Specification Section 108.1 - “Subcontracting”.

The Contractor is solely responsible and obligated to ensure prompt payment obligations and compliance reporting through all tiers until the final payment is made in accordance with Standard Specification Section 109.10 - “Project Closure”. Contractors, Subcontractors or Suppliers, at all tiers, shall be required to submit payment information, as provided for in the B2GNow supporting software system, indicating when payments are made to any Subcontractor, Supplier and or Fabricator, regardless of DBE status. The Subcontractor, Supplier or Fabricator shall in B2GNow timely select whether payment was or was not received for the undisputed and Accepted Work. The NMDOT may recognize supporting documentation of such payment(s) in one or more of the following forms:

1. Proof of the timely deposit of funds into the Subcontractor, Supplier and or Fabricator bank account;

2. Proof of timely hand delivery of payment to the Subcontractor, Supplier and or Fabricator; or

3. Proof of timely mailing payment to the Subcontractor, Supplier and or Fabricator.

The Contractor shall notify the NMDOT in writing in all situations when it will not make full prompt payment to its Subcontractor, Supplier or Fabricator before the payment becomes due. The Contractor shall also notify the Subcontractor, Supplier or Fabricator in writing in all situations when it will not make full prompt payment before the payment becomes due. For purposes of notification of failure to make prompt payment “in writing” shall be delivered via certified mail or electronic mail. A Contractor will be required to fully document any alleged disputes with its Subcontractors, Suppliers and or Fabricators and provide the documentation to the NMDOT upon request.

The Contractor shall have good cause for any failure to fully or partially provide prompt payment for Accepted Work. The NMDOT determines good cause. Good cause recognized by the NMDOT to excuse a failure to promptly pay includes, but is not limited to, a claim concerning the Subcontractor's or Supplier's Work, failure to provide certified payrolls, and other required Project documentation. The amount withheld cannot exceed the amount in dispute between the Contractor and Subcontractor or Supplier. The Contractor has the burden to support the Contractor's assertion of good cause. If the failure to fully or partially provide prompt payment

is based on a claim, the Contractor shall submit a verifiable explanation and/or proof of the claim between the parties to the Project Manager.

Retainage

The NMDOT will require Contractors to pay all retainage owed to the Subcontractor, Supplier or Fabricator within 30 Days of the Progress Payment indicating Acceptance of the completed Subcontract Work, even if the NMDOT continues to withhold retainage from the Contractor. The Subcontract Work is completed when all the tasks called for in the Subcontract have been accomplished, documented and Accepted by the NMDOT. The Contractor may request partial acceptance in accordance with Standard Specifications Section - 105.18.1 “Partial Acceptance” upon satisfactory completion of the Subcontract Work. Good cause recognized by the NMDOT to excuse a failure to promptly release retainage includes, but is not limited to, a claim concerning the Subcontractor's or Supplier's Work, failure to provide certified payrolls, and other required Project documentation. The amount withheld cannot exceed the amount in dispute between the Contractor and Subcontractor or Supplier. The Contractor has the burden to support the Contractor's assertion of good cause for the failure to promptly release retainage. If the failure to promptly release retainage is based on a claim, the Contractor shall submit verifiable explanation and/or proof of the claim between the parties to the Project Manager.

Cross-Project Offsets

The NMDOT will not recognize cross-Project offsets as "good cause" excusing untimely payment for Accepted Work. The Contractor's Contract with Subcontractors or Suppliers shall not contain any provision that allows the Contractor to withhold payment from the Subcontractor or Supplier as a result of the Subcontractor's or Supplier's performance on separate Contract(s). Any such provision will be without effect, and shall not be recognized as good cause excusing a failure to make prompt payment.

4. REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS AND SUPPLEMENTS

FHWA-1273 -- Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design- build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504
of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60- 1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. **Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non- responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non- minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non- minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101.
Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. **Minimum wages** (29 CFR 5.5)

a. Wage rates and fringe benefits. All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid

the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. Frequently recurring classifications. (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. Conformance. (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the

amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. Fringe benefits not expressed as an hourly rate. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. Unfunded plans. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. Interest. In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. Withholding requirements. The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined

in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. Priority to withheld funds. The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) Information required. Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) Additional records relating to fringe benefits. Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B)

of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) Additional records relating to apprenticeship. Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts- covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) Information required. The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at https://www.dol.gov/sites/dolgov/files/WHD/ legacy/files/wh347/.pdf or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) Statement of Compliance. Each certified payroll submitted must be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) Use of Optional Form WH–347. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) Signature. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) Falsification. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) Length of certified payroll retention. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. Contracts, subcontracts, and related documents. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. Required disclosures and access (1) Required record disclosures and access to workers. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) Sanctions for non-compliance with records and worker access requirements. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) Required information disclosures. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. Apprentices (1) Rate of pay. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) Fringe benefits. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) Apprenticeship ratio. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) Reciprocity of ratios and wage rates. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. Equal employment opportunity. The use of apprentices and journeyworkers under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis- Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. **Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. **Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. Withholding process. The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. Priority to withheld funds. The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower- tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to

discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish
(a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long- standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph
(1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or

investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII.FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387).

Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general

contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or

entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

5. SUPPLEMENTAL EEO REQUIREMENTS

Incorporated in this Contract, by reference, are supplemental requirements to the Department of Labor, Office of Federal Contract Compliance Programs (“OFCCP”) Equal Employment Opportunity Program (“EEO”). The supplemental requirements are:

1. Exec. Order No. 11246, 30 FR 12319 (September 24, 1965);
2. 41 C.F.R. § 60-4.1 through 60-4.9 (2015);

3. Exec. Order No. 13665 Non-Retaliation for Disclosure of Compensation Information (April 8, 2014); and
4. Further Amendments to Exec. Order No. 11478, Equal Employment Opportunity in the Federal Government and Exec. Order No. 11246, Equal Employment Opportunity (July 21, 2014).

Per 41 C.F.R. § 60-4.2 all federally-assisted Contracts shall include (information has been interlineated applicable to this Contract as required):

"(a) All Federal contracting officers and all applicants shall include the notice set forth in paragraph (d) of this section and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in § 60–4.3 of this part in all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts to be performed in geographical areas designated by the Director pursuant to § 60–4.6 of the part. Administering agencies shall require the inclusion of the notice set forth in paragraph (d) of this section and the specifications set forth in § 60–4.3 of this part as a condition of any grant, contract, subcontract, loan, insurance or guarantee involving federally assisted construction covered by this part 60–4.

(b) All non-construction contractors covered by Executive Order 11246 and the implementing regulations shall include the notice in paragraph (d) of this section in all construction agreements which are necessary in whole or in part to the performance of the covered non-construction contract.

(c) Contracting officers, applicants and non-construction contractors shall give written notice to the Director within 10 working days of award of a contract subject to these provisions. The notification shall include the name, address and telephone number of the contractor; employer identification number; dollar amount of the contract, estimated starting and completion dates of the contract; the contract number; and geographical area in which the contract is to be performed.

(d) The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to § 60–4.6 of this part (see 41 CFR 60–4.2(a)):

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

The most current participation goals for minorities and females can be found at https://www.dol.gov/sites/dolgov/files/ofccp/ParticipationGoals.pdf and are:

New Mexico:

160 Albuquerque, NM:
SMSA Counties.

0200 Albuquerque, NM-38.3%
NM Bernalillo; NM Sandoval.
Non-SMSA Counties-45.9%
NM Catron. NM Colfax; NM De Baca; NM Guadalupe; NM San Juan; NM San Miguel; NM Santa Fe; NM Socorro; NM Taos; NM Torrance; NM Valencia.

Goals for females:
Nationwide goal-6.9%

These goals apply to all of a contractor's construction work sites in the geographic area (whether or not these sites are also the result of a federal contract or are federally assisted contract). The goals apply to the contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a federal or federally assisted contract or subcontract.

The contractor's compliance with Executive Order 11246 and the regulations in 41 CFR Part 60-4 will be assessed based on its implementation of the equal opportunity clause and its good faith efforts to meet the goals by undertaking the specific affirmative action obligations required by the specifications outlined in 41 CFR 60-4.3(a). Each goal is a target percentage of hours to be worked by minorities or women. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor must make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals is a violation of the contract, Executive Order 11246, and the regulations in 41 CFR Part 60-4.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

For more information: Contract Award Notification Requirement | U.S. Department of Labor (dol.gov)

The most current OFFCP staffing can be found at http://www.dol.gov/ofccp/contacts/regkeyp.htm and are:

SOUTHWEST and ROCKY MOUNTAIN REGION

Covered States/Territories: Arkansas, Colorado, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming

Regional Director: Melissa L. Speer
Deputy Regional Director: Ronald Sullivan
Director of Regional Operations: LaQuandra Adebajo
Director of Planning Support: Antonio Mendez
Regional Outreach Coordinator: Allen Boyd

Contact Information:
U.S. Department of Labor
Office of Federal Contract Compliance Programs
525 South Griffin St.
Room 840
Dallas, TX 75202-5092
Main Number: 972-850-2550
Fax: 972-850-2552
Regional Director Contact: OFCCP-SWARM@dol.gov
Construction Award Email: OFCCP-SW-ConstructionAward@dol.gov
Pre-Award Email: OFCCP-SW-PreAward@dol.gov
Complaints Email: OFCCP-SW-CC4@dol.gov

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is in the Advertisement."

6. INDIAN PREFERENCE

This Contract preference requirement is an expansion of the provisions of the equal employment opportunity responsibilities for Contractors contained elsewhere in this NTC and the provisions contained under FHWA-1273.

For the full Policy Statement on Indian Preference: Policy Statement on Indian Preference under Title VII | U.S. Equal Employment Opportunity Commission (eeoc.gov)

If the Project is located on or near a reservation the Contractor, or its Subcontractor at any tier, may be required to extend a publicly announced preference in employment to Indians living on or near an Indian reservation in connection with employment opportunities on or near an Indian reservation. The word "near" includes all areas where a person seeking employment could reasonably expected to commute in the course of a workday. Contractors or Subcontractors, at any tier, shall not discriminate among Indians on the basis of religion, sex, tribal affiliation, and the use of such a preference shall not excuse compliance with the remaining EEO provisions of this NTC.

If the Contractor extends an Indian preference, then this NTC requires that Contractors shall afford preference to initial hiring, reassignment, transfer, competitive promotion, reappointment, reinstatement, or any personnel action to fill a vacant position to qualified and enrolled members of federally recognized Indian tribe. The extended preference shall extend to Indians and not extend to a specific tribe or tribal affiliation. There may be tribal laws and regulations that the Contractor is required to follow if an Indian preference is extended. Contractors shall make themselves aware of any labor requirements, taxes, fees, licenses, permits or conditions that may be imposed by the affected tribes for the Project work performed in the area. In order to be apprised of the tribal law or regulation requirements, the Contractor shall establish a liaison with local tribe employment offices and provide this individual's name and contact information to the Project Manager at the Pre-Construction Conference per Standard Specification Section 108.2 "Notice to Proceed and Pre-

Construction Conference". The tribe's employment office may then assist the Contractor in in identifying qualified and tribally enrolled individuals and assist in guidance related to applicable tribal laws or regulations. Verification of available, qualified and enrolled individuals will be provided to the Contractor by the tribe's employment office. A list of contacts to facilitate the Contractor's coordination with the tribal liaison is at: https://api.realfile.rtsclients.com/PublicFiles/f260a66b364d453e91ff9b3fedd494dc/f3934a69-6444-4189-88de-c08ae301c683/Tribal%20Leader%20Contact%20List

7. NMDOT ON-THE-JOB TRAINING (OJT) PROGRAM

The primary objective of the Special Provision referenced in the link below is to address the underrepresentation of minority and female workers in the construction trades through the assignment of OJT goals. The primary objective of the OJT program is the training and upgrading of minorities and females to journeyman status. The Contractor shall make every effort to enroll minority, female, and economically disadvantaged persons to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and will not be used to discriminate against any applicant for training, whether or not they are a member of a minority group.

The Contractor or Subcontractor, at any tier, shall comply with the procedures outlined in Appendix B to Subpart A of 230 C.F.R. § 230. The OJT program implemented by the Contractor or Subcontractor, at any tier, must be formally approved by the NMDOT before use of the program. In lieu of the use of a formally approved OJT program the Contractor, or Subcontractor at any tier, may submit its own individual OJT program for NMDOT and FHWA consideration and approval. Until formal approval is received from the NMDOT and FHWA, the individual Contractor or Subcontractor OJT program cannot be used.

On The Job Training Program and Partnership Agreement (rtsclients.com)

Contractors meeting the selection criteria for implementation of an OJT program will be notified by the NMDOT of its training assignment by September 1st. The reporting year and the training assignment will be identified in the notification from the NMDOT.

The Contractor shall fulfill all of the requirements of the OJT program including the maintenance of records and submittal of periodic reports documenting program performance. The requirements and reports related to the OJT program shall include the Contractor's use of forms A-2201, A-2202, and A-2203. The forms are incorporated herein by reference. The Contractor shall submit Form A-2202 by the tenth (10th) of each month of the reporting period or as indicated on the form itself.

The Contractor has the option to pay its trainees either the full prevailing wage for the trainee's job classification or at least 60% of the minimum prevailing wage for the trainee's job classification for the first half of the training period, 75% for the third quarter, and 90% for the last quarter. Prevailing wages are those specific to this Contract.

For Federal-aid projects, and if requested, the Contractor may be reimbursed $0.80 per training hour by the NMDOT. Requests for reimbursement shall be submitted by the Contractor to the Project Manager in writing and after Substantial Completion for the Project is declared. Reimbursement is not available for 100% state-funded Projects.

Noncompliance with the responsibilities and requirements of this section, including being a non-responsive participant in the program, may be cause for the NMDOT to issue a show cause notice and other action as deemed necessary by the NMDOT.

8. WAGE RATES

The higher wage rates shall govern in the event of a discrepancy between the minimum wage rates in the Wage Decision of the DWS and the U.S. Department of Labor Wage Decision applicable to this Contract.

9. LABOR REPORTING AND SUBMISSION OF WEEKLY PAYROLLS

Contractors and Subcontractors must pay employees weekly. Certified Payrolls and Statements of Compliance on federally funded Projects are due to the NMDOT seven (7) Days after date that the actual payment is processed by Contractor or Subcontractor, at any tier, to its employee.

The date that the actual payment is processed to the employee may be different that the payroll end date in some situations. Notwithstanding the difference between a payroll end date and actual payment date, the Contractor or Subcontractor at any tier shall make actual full payment to the employee no later than seven (7) Days after the payroll end date. And then shall submit the Certified Payrolls and Statements of Compliance no later than seven (7) Days after the actual payment date.

The Contractor and Subcontractors at all tiers Working on federal-aid Projects shall use the following EEO Software Programs to report specific EEO, Labor Compliance and DBE information as required by the Contract and as specified by this NTC. The two software programs are:

- B2GNow software
- LCPtracker software

Use of B2GNow and LCPtracker software programs is required and shall be considered Incidental. Failure of a Contractor or Subcontractor to use the required software programs to report specific EEO, Labor Compliance and DBE information may result in the issuance of a Non-Conformance per Standard Specification Section – 109.8.2 “Non-Conformance” or other Contract remedies.

B2GNow -, is a web-based software program used to collect, verify and manage payment information for Contractors and Subcontractors working on federal-aid Projects. Additionally, the software is used to collect and report DBE participation and utilization on federal-aid Projects. Information related to the use of the software is available at https://nmdot.dbesystem.com/.

The Contractor shall upload the fully executed contract between the Contractor and Subcontractor at any tier, the completed permission to subcontract form and associated attachments, and subcontract checklist to B2GNow.

LCPtracker - (Labor Compliance Program Tracker) is a web-based software program used to collect, verify and manage prevailing wage certified payrolls and related labor compliance documentation for Contractors and Subcontractors on federal-aid Projects. Information related to the use of the software is available at

https://prod.lcptracker.net/Lcp/WebForms/Login.aspx. On all Projects, the Contractor shall submit and shall ensure all Subcontractors submit weekly payroll information into the LCPtracker software program.

To adequately track timely submission of weekly payrolls the Contractor shall enter the actual payment date in the field on the weekly Certified Payroll reporting form in LCPtracker titled "payment date".

Information on access to the software programs, log-on information, use of the programs, available training, user manuals, etc. can be obtained by accessing the web page referenced in this NTC.

10. TITLE VI Assurances Appendix A and E

Appendix A of the Title VI Assurances
49 C.F.R. § Pt. 21, App. A

Appendix A of the Title VI Assurances

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations**: The contractor (hereinafter includes consultants) will comply with the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time-to-time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination**: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate either directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of the 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the New Mexico Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor

shall so certify to the New Mexico Department of Transportation (NMDOT), or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of the contractor's non-compliance with the nondiscrimination provisions of this contract, the New Mexico Department of Transportation (NMDOT) will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

   a. withholding payments to the contractor under the contract until the contractor complies; and/or
   b. cancelling, terminating or suspending the contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the NMDOT or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the NMDOT to enter into any litigation to protect the interests of the NMDOT. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Appendix E of the Title VI Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et. seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaces or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (29 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the program or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your program (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (U.S.C. 1681 *et seq*.)

February 20, 2023

NOTICE TO CONTRACTORS

New Mexico Employees Health Coverage

If the Bidder has, or grows to, six (6) or more employees who Work, or who are expected to Work, an average of at least 20 hours per week over a six (6) month period during the term of this Contract, the Bidder certifies by the submission of its Bid and if Awarded the Contract agrees to have in place, and agrees to maintain for the term of the Contract, health insurance for those employees and to offer that health insurance to those employees if the expected annual value in the aggregate of any and all Contracts between the Bidder and the SCRTD exceeds $250,000.00.

The Bidder agrees to maintain a record of the number of employees who have:

A. Accepted health insurance;
B. Declined health insurance due to other health insurance coverage already in place; or
C. Declined health insurance for other reasons.

These records are subject to review and audit by a representative of the SCRTD.

The Bidder agrees to advise all employees of the availability of State publicly financed health care coverage programs.

For all Contracts exceeding $250,000, the Bidder Awarded the Contact will be required to provide a letter stating that they currently offer health insurance to its New Mexico employees.

Office of Inspector General
January 1, 2019

NOTICE TO CONTRACTORS

Office of Inspector General

The New Mexico Department of Transportation ("NMDOT") Office of Inspector General ("OIG") has the authority to carry out all duties required to collect information, conduct audits, special studies and investigations. The duties of the NMDOT's OIG also arise from the responsibility all state Departments of Transportation have for ensuring that all Projects are carried out in accordance with federal or state requirements.

The NMDOT's OIG shall be provided access to all documents associated with the Project per the 2019 Edition of the NMDOT's Standard Specifications for Highway and Bridge Construction, Section 107.28 - "Contractor Records".

To Report Fraud, Waste & Abuse

1-800-671-STOP
(1-800-671-7867)

The NMDOT OIG has established the above toll free number for reports of fraud, waste, abuse or similar illegal or unethical activity affecting the cost, completion or correct and safe construction of a Project. All information will be treated confidentially and caller anonymity will be respected.

The New Mexico Fraud Against Taxpayers Act:

The New Mexico Fraud Against Taxpayers Act, NMSA 1978, §§ 44-9-1 to -14 (2007, as amended through 2015) provides civil penalties for submitting a claim to a state agency based on false, fraudulent or misleading information. The Act also includes a financial incentive for parties with knowledge of such a claim to come forward.

To Report Bid Rigging Activities

1-800-424-9071

The U.S. Department of Transportation, Office of Inspector General has established the above toll free number for reports of Bid rigging, Bidder collusion, or other similar illegal or unethical activity affecting the cost, completion or correct and safe construction of a Project. All information will be treated confidentially and caller anonymity will be respected.

NOTICE TO CONTRACTORS

Patents On Milling Equipment and Milling Operations

Milling equipment and processes intended for use by the Bidder to perform any milling Work required under this Contract may be subject to United States patents. It is the responsibility of the Bidder to investigate the applicability of such patents to the milling Work, and pay royalties and other lawfully imposed charges by the patent holders. Royalties and other lawfully imposed charges are incidental and shall be factored into the Project Bid Item Unit Price for milling.

Chief Engineer
January 1, 2019

NOTICE TO CONTRACTORS

Professional Services

The following has been added to the 2019 Edition of the New Mexico Department of Transportation's Standard Specifications for Highway and Bridge Construction Section 101.4 "Terms and Definitions".

A Professional Service provider is considered a Subcontractor when Work is performed within the Project limits and shall be prequalified in accordance with 18.27.5 NMAC (12/07/2000, as amended through 01/01/2015).

April 10, 2023

NOTICE TO CONTRACTORS

Quality Standards for Traffic Control Devices

The Contractor shall comply with quality standards for traffic control devices in the New Mexico Department of Transportation's Intra-Departmental Design Directive ("IDD") 2009-05, incorporated herein by reference. The IDD adopts quality standards in accordance with 23 C.F.R. § 630 (2007) Subpart K-Temporary Traffic Control Devices.

NOTICE TO CONTRACTORS

Return of Lobbying Disclosure

Pre-Award

This Project is Federal-aid funded. Per 49 C.F.R. § 20.105 and 31 U.S.C. 1352 the Bidder is prohibited from using Federal-aid funds for certain lobbying activities. In addition to this prohibition, the Bidder is required to certify that no Federal-aid funds have been or will be used for such lobbying activities. The Bidder makes this certification through the submission of its Bid with its digital id. The terms and conditions of the certification appear in the Notice to Contractors ("NTC") titled "Federal Requirements" in the section called "Required Contract Provisions Federal-aid Construction Contracts and Supplements (FHWA-1273)" in subsection "XI Certification Regarding Use of Contract Funds for Lobbying".

In addition to the certification above, if any funds other than Federal-aid funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Project the attached form titled "Disclosure of Lobbying Activities" ("Disclosure") shall be submitted. After receipt of the notice of preliminary award of contract letter the successful Bidder shall complete and return the Disclosure with the documents in the notice of preliminary award of contract letter.

Failure by the successful Bidder to comply with this Notice to Contractors may constitute just cause for cancellation of the Award and the forfeiture of the Bid Guaranty.

Post-Award

At the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any Disclosure previously submitted the Contractor shall immediately submit an updated Disclosure to the Project Manager.

In addition, for subcontracts at any tier over $100,000.00, the Contractor as a recipient of Federal-aid funds is required to:

1. Add the NTC titled "Federal Requirements" in all subcontracts at any tier. The inclusion of the NTC ensures that the terms and conditions of the certification are incorporated into the Subcontract at any tier;
2. If any funds other than Federal-aid funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Project require its Subcontractors at any tier to complete and return the Disclosure with its permission to subcontract request form A-1086; and
3. Require its Subcontractors at any tier to submit an updated Disclosure to the Contractor at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any Disclosure previously submitted by the Subcontractor. The Contractor shall immediately submit the same to the Project Manager.

Per 31 U.S.C.A. § 1352 (d)(1)(A)(C)(2) exclusions exist regarding the requirements of this lobbying certification and completion of Disclosure. Some of the applicable exclusions are:

1. Payment of a reasonable compensation made to employed officers or employees of a person requesting or receiving Federal-aid funds.
2. A request of or receipt of a Contract that does not exceed $100,000.00.

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:	2. Status of Federal Action:	3. Report Type:
☐ a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	☐ a. bid/offer/application b. initial award c. post-award	☐ a. initial filing b. material change **For Material Change Only:** year _____ quarter _____ date of last report _____

4. Name and Address of Reporting Entity:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:
☐ **Prime** ☐ **Subawardee** Tier _____, *if known*: **Congressional District**, *if known*:	 **Congressional District**, *if known*:
6. Federal Department/Agency:	**7. Federal Program Name/Description:** CFDA Number, *if applicable*: _____
8. Federal Action Number, *if known*:	**9. Award Amount,** *if known*: $
10. a. Name and Address of Lobbying Entity (*if individual, last name, first name, MI*):	**b. Individuals Performing Services** (*including address if different from No. 10a*) (*last name, first name, MI*):

(attach Continuation Sheet(s) SF-LLLA, if necessary)

11. Amount of Payment (*check all that apply*):	13. Type of Payment (*check all that apply*):
$ _____ ☐ **actual** ☐ **planned**	☐ **a. retainer** ☐ **b. one-time fee** ☐ **c. commission** ☐ **d. contingent fee** ☐ **e. deferred** ☐ **f. other; specify:** _____
12. Form of Payment (*check all that apply*): ☐ **a. cash** ☐ **b. in-kind; specify:** nature _____ value _____	

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) SF-LLLA, if necessary)

15. Continuation Sheet(s) SF-LLLA attached: ☐ **Yes** ☐ **No**

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less that $10,000 and not more than $100,000 for each such failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ Date: _____

Federal Use Only:

Authorized for Local Reproduction
Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employeeof a Member of Congress in connection with a covered Federal action. Use the SF-LLLA Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizationallevel below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.

15. Check whether or not a SF-LLLA Continuation Sheet(s) is attached.

16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

April 10, 2023

NOTICE TO CONTRACTORS

Safety Vests

The Contractor shall ensure all personnel working on this Project, including all subcontractors identified in the Contract documents, are in compliance with usage of the American National Standards Institute (ANSI) Class 3 safety vest for personnel in the Work zone.

The usage of the ANSI Class 3 safety vest shall apply to all Inspectors, supervisory personnel and site visitors.

Class 3 safety vests shall conform to the specifications set forth by ANSI for Class 3 safety vests.

NOTICE TO CONTRACTORS

Temporary Concrete Wall Barrier

The NMDOT is temporarily allowing the use of 10-ft and/or 20-ft Temporary Concrete Wall Barrier (TCWB) from other states with the following stipulations:

- TCWB of different designs, shapes or lengths shall not be connected or intermixed;
- TCWB shall meet the 10-ft NMDOT deflection as required in NMDOT Standard Drawings 606-20-1/5 and 606-20-3/5. TCWB shall meet the 20-ft NMDOT deflection as required in NMDOT Standard Drawing 606-22-1/4;
- TCWB shall meet NCHRP Report 350 for crashworthiness if constructed prior to January 1, 2020;
- If the TCWB has been constructed after December 31, 2019, documentation must be provided showing the TCWB meets MASH compliance, or that the TCWB currently meets NCHRP 350 and that the state has documented efforts to have the TCWB tested for MASH compliance;
- Contractor shall provide documentation containing the drawings and details of the TCWB demonstrating approval by FHWA for use of the referenced 10-ft or 20-ft sections from other states; and
- This NTC applies to projects on both NHS routes and non-NHS routes.

Contractor shall submit the TCWB Shop Drawings, the FHWA acceptance letter, and production information to the Project Manager with pre-construction documents in accordance with Standard Specifications Section 108.2.2, “Pre-Construction Conference”.

Chief Engineer
October 3, 2023

NOTICE TO CONTRACTORS

2019 Standard Drawings for Highway and Bridge Construction Updates (Effective October 2023 Letting)

The 2019 Edition of the New Mexico Department of Transportation Standard Drawings for Highway and Bridge Construction shall apply in addition to the following:

Standard Section 210 – Excavation and Backfill for Major Structures

- 210-01-1/1, Excavation and Backfill for Bridges, Walls and CBC's (8-27-08)

Standard Section 450 – Portland Cement Concrete Pavement (PCCP) (QLA)

- 450-01-1/2, PCCP Joint Details (1-28-15)
- 450-01-2/2, PCCP Joint Details (1-28-15)

Standard Section 511 – Concrete Structures

- 511-65-2/3, Concrete Box Culvert Triple Opening – Design Fills B, C, D, E Dimensions and Rebar Schedule (4-9-07)

Standard Section 514 – Concrete Barrier Railing for Bridges

- 514-01-1/6, 32" Concrete Bridge Barrier Railing General Details (4-3-12)
- 514-01-2/6, 32" Concrete Bridge Barrier Railing General Details (4-3-12)
- 514-01-3/6, 32" Concrete Bridge Barrier Railing Standard Section and Details (4-3-12)
- 514-01-4/6, 32" Concrete Bridge Barrier Railing Transition Section and Details (12-27-12)
- 514-01-5/6, 32" Concrete Bridge Barrier Railing Details at Joint Seals (4-3-12)
- 514-01-6/6, 32" Dowel Assembly for Expansion Joints in Concrete Wall Barrier and Concrete Bridge Barrier Railing (4-3-12)
- 514-03-1/6, 42" Concrete Bridge Barrier Railing General Details (4-3-12)
- 514-03-2/6, 42" Concrete Bridge Barrier Railing General Details (4-3-12)
- 514-03-3/6, 42" Concrete Bridge Barrier Railing Standard Section and Details (4-3-12)
- 514-03-4/6, 42" Concrete Bridge Barrier Railing Transition Section and Details (12-27-12)
- 514-03-5/6, 42" Concrete Bridge Barrier Railing Details at Joint Seals (4-3-12)
- 514-03-6/6, Dowel Assembly for Expansion Joints in 42" Concrete Wall Barrier and Concrete Bridge Barrier Railing (4-3-12)
- 514-10-1/1, Bridge Number Plate, Tag, and Survey Marker (12-16-19)

Standard Section 515 – Reinforced Concrete for Minor Structures

- 515-02-1/2, Rundown Flume Type I for Modified or Pinned Curb with Half Pipe Rundown (4-3-12)
- 515-02-2/2, Alternate Rundown for Rundown Flumes Type I, Type II, Type III Full Pipe, Concrete and Riprap (4-3-12)
- 515-03-1/1, Rundown Flume Type II (SAG) for Modified or Pinned Curb (4-3-12)
- 515-04-1/2, Rundown Flumes Type III for Bridges (4-3-12)
- 515-04-2/2, Estimated Quantities for Rundown Flumes (4-3-12)

Standard Section 543 – Metal Railing

- 543-02-1/1, Metal Railing Type "A" (11-13-09)
- 543-03-1/2, Metal Railing Type "D" (11-13-09)
- 543-03-2/2, Metal Railing Type "D" Details (11-13-09)
- 543-06-1/4, Metal Railing NM Type A32 Details of Post on Bridge, Wingwalls and Approach Slab (4-20-21)
- 543-06-2/4, Metal Railing NM Type A32 Railing Elevation and Bridge Rail Joint Details (4-20-21)
- 543-06-3/4, Metal Railing NM Type A32 General Notes and Details of Rail to Post Connection and Gutter Detail (4-20-21)
- 543-06-4/4, Metal Railing NM Type A32 Rail to Thrie Beam Connection (4-20-21)
- 543-07-1/4, Metal Railing NM Type A42 Details of Posts on Bridge, Wingwalls and Approach Slab (4-20-21)
- 543-07-2/4, Metal Railing NM Type A42 Railing Elevation and Railing Elevation Rail Expansion Joint Detail (4-20-21)
- 543-07-3/4, Metal Railing NM Type A42 General Notes and Details of Rail to Post Connection and Gutter Detail (4-20-21)
- 543-07-4/4, Metal Railing NM Type A42 Rail to Thrie Beam Connection (4-20-21)
- 543-08-1/4, Side Mounted Bridge Railing Details (4-8-13)
- 543-08-2/4, Side Mounted Bridge Railing Details (4-8-13)
- 543-08-3/4, Side Mounted Bridge Railing Details (4-8-13)
- 543-08-4/4, Side Mounted Bridge Railing Details (4-8-13)
- 543-09-1/1, Bridge Number Plate, Tag, and Survey Marker (12-16-19)

Standard Section 562 – Bridge Joint Strip Seals

- 562-01-1/3, System 1 Bridge Joint Strip Seal General (8-17-12)
- 562-01-2/3, System 1 Bridge Joint Strip Seal Type "A" Installation (4-3-12)
- 562-01-3/3, System 1 Bridge Joint Strip Seal Type "B" Installation (4-3-12)

Standard Section 564 – Preformed Closed Cell Foam Bridge Joint Seals

- 564-01-1/1, Preformed Closed Cell Foam Bridge Joint Seal (6-24-13)

Standard Section 602 – Slope and Erosion Protection Structures

- 602-01-1/1, Wire Enclose Riprap Class "A" (11-16-09)
- 602-05-1/2, Gabion Basket Details (1-9-13)
- 602-05-2/2, Gabion Retaining Wall Details (1-9-13)
- 602-08-1/2, Wire Enclosed Tire Bales for Erosion Control or Earth Retaining (1-9-12)
- 602-08-2/2, Wire Enclosed Tire Bales for Erosion Control or Earth Retaining (1-9-12)

Standard Section 606 – Metal Barrier, Cable Barrier and Concrete Wall Barrier

- 606-GR31-17/20, Transition – Metal Barrier to Rigid Barrier (5-6-14)
- 606-15-1/7, Concrete Wall Barrier Type 32 General Notes, Quantities and Rebar Schedule (1-30-14)
- 606-15-2/7, Concrete Wall Barrier Type 32 (1-30-14)
- 606-15-3/7, 32" Dowel Assembly for Expansion Joints in Concrete Wall Barrier and Concrete Barrier Railing (1-30-14)
- 606-15-4/7, Concrete Wall Barrier Type 32 Transition Details (1-30-14)
- 606-15-5/7, Concrete Wall Barrier Type 32 Transition (1-30-14)
- 606-15-6/7, Concrete Wall Barrier Type 32 at Column and Sign Pedestals (1-30-14)
- 606-15-7/7, Concrete Wall Barrier Type 32 Over Culvert (1-30-14)
- 606-17-1/7, Concrete Wall Barrier Type 42 General Notes, Quantities and Rebar Schedule (1-30-14)
- 606-17-2/7, Concrete Wall Barrier Type 42 (1-30-14)
- 606-17-3/7, 42" Dowel Assembly for Expansion Joints in Concrete Wall Barrier and Concrete Barrier Railing (1-30-14)
- 606-17-4/7, Concrete Barrier Wall Type 42 Transition Details (1-30-14)
- 606-17-5/7, Concrete Wall Barrier Type 42 Transition (1-30-14)
- 606-17-6/7, Concrete Wall Barrier Type 42 at Column and Sign Pedestals (1-30-14)
- 606-17-7/7, Concrete Wall Barrier Type 42 Over Culvert (1-30-14)
- 606-22-1/4, 20' Concrete Barrier General Notes & Reinforcing Schedule (1-26-17)
- 606-22-2/4, 20' Concrete Barrier Fabrication and Reinforcement Details (1-26-17)
- 606-22-3/4, 20' Concrete Barrier Staking & Anchoring Details (1-26-17)
- 606-22-4/4, 20' Concrete Barrier Staking & Connection Details (1-26-17)

Standard Section 607 – Fence

- 607-08-3/6, Game Fence Details at Game Guard Locations (6-18-21)
- 607-15A-1/2, Pedestrian Screening Fence Type 1 with Embedded Sleeve (5-8-13)
- 607-15A-2/2, Pedestrian Screening Fence Type 1 with Base Plates and Bolts (5-8-13)

Standard Section 610 – Cattle Guards

- 610-01-1/3, Cattle Guard Plan and Steel Grid Unit (4-5-18)
- 610-01-2/3, Cattle Guard Precast Concrete Base and Details (4-5-18)
- 610-01-3/3, Cattle Guard Post and Brace Assembly Details (4-5-18)
- 610-02-1/2, Game Guard Plan and Elevation (4-20-21)
- 610-02-2/2, Metal Grate Plan and Misc Details (4-20-21)

Standard Section 701 – Traffic Signs and Sign Structures

- 701-20-1/1, Official Median Crossover (6-18-05)

Standard Section 702 – Construction Traffic Control Devices

- Delete all 702 Standard Drawings

Standard Section 707 – Signal and Lighting Standards

- 707L-08-1/7, High Mast Luminaire Support Structures Type VI (12-15-08)
- 707L-08-2/7, High Mast Luminaire Support Structures Type VI (12-15-08)
- 707L-08-3/7, High Mast Luminaire Support Structures Type VI (12-15-08)
- 707L-08-4/7, High Mast Luminaire Support Structures Type VI (12-15-08)
- 707L-08-5/7, High Mast Luminaire Support Structures Type VI (12-15-08)
- 707L-08-6/7, High Mast Luminaire Support Structures Type VI (12-15-08)

- 206-11-1/1, Fill Heights for HDPE and PP Pipe Excavation Details (2-19-20)

Standard Section 210 – Excavation and Backfill for Major Structures

- 210-01-1/3, Excavation for Bridges and Walls (1-3-22)
- 210-01-2/3, Backfill for Bridges and Walls (1-3-22)
- 210-01-3/3, Excavation and Backfill for CBC's (1-3-22)

Standard Section 450 – Portland Cement Concrete Pavement (PCCP) (QLA)

- 450-01-1/3, PCCP Joint Details (10-26-21)
- 450-01-2/3, PCCP Joint Details (10-26-21)
- 450-01-3/3, PCCP Joint Details (10-26-21)

Standard Section 511 – Concrete Structures

- 511-65-2/3, Concrete Box Culvert Triple Opening - Design Fills B, C, D, E Dimensions and Rebar Schedule (2-19-19)

Standard Section 514 – Concrete Barrier Railing for Bridges

- 514-01-1/5, 32 Inch Concrete Bridge Barrier Railing General Details (6-24-21)
- 514-01-2/5, 32 Inch Concrete Bridge Barrier Railing Transition Section and Details (6-24-21)
- 514-01-3/5, 32 Inch Concrete Bridge Barrier Railing General Details (6-24-21)
- 514-01-4/5, 32 Inch Concrete Bridge Barrier Railing Standard Section and Details (6-24-21)
- 514-01-5/5, 32 Inch Concrete Barrier Details at Expansion Joint (6-24-21)
- 514-03-1/5, 42 Inch Concrete Bridge Barrier Railing General Details (6-24-21)
- 514-03-2/5, 42 Inch Concrete Bridge Barrier Railing General Details (6-24-21)
- 514-03-3/5, 42 Inch Concrete Bridge Barrier Railing Transition Section and Details (6-24-21)
- 514-03-4/5, 42 Inch Concrete Bridge Barrier Railing Standard Section and Details (6-24-21)
- 514-03-5/5, 42 Inch Concrete Bridge Barrier Railing Details at Joint Seals (6-24-21)
- 514-10-1/1, Bridge Number Plate (4-24-20)

Standard Section 515 – Reinforced Concrete for Minor Structures

- 515-02-1/3, Rundown Flume Type 1 for Roadway (10-5-21)
- 515-02-2/3, Rundown Flume Type 2 (SAG) for Roadway (10-5-21)
- 515-02-3/3, Rundown Flume Type 3 for Bridges (10-5-21)
- 515-03-1/1, Rundown Flume Type 1 and 2 Retrofit Installation for Sloping Faced Curb in Front of Existing Guardrail (10-5-21)
- 515-04-1/3, Rundown Options for Rundown Flume Type 1, Type 2, Type 3 (8-17-23)
- 515-04-2/3, Rundown Options for Rundown Flume Type 1, Type 2, Type 3 (8-17-23)
- 515-04-3/3, Estimated Quantities for Rundown Flumes (8-17-23)

Standard Section 543 – Metal Railing

- 543-06-1/4, Metal Railing NM Type A32 Details of Posts on Bridge, and Approach Slabs (8-7-23)
- 543-06-2/4, Metal Railing NM Type A32 Railing Elevation and Rail Expansion Joint Details (8-7-23)
- 543-06-3/4, Metal Railing NM Type A32 General Notes and Details of Rail to Post Connection and Gutter Detail (8-7-23)
- 543-06-4/4, Metal Railing NM Type A32 Rail to Thrie Beam Connection (8-7-23)
- 543-07-1/4, Metal Railing NM Type A42 Details of Posts on Bridge, and Approach Slabs (8-7-23)
- 543-07-2/4, Metal Railing NM Type A42 Railing Elevation and Rail Expansion Joint Detail (8-7-23)
- 543-07-3/4, Metal Railing NM Type A42 General Notes and Details of Rail to Post Connection and Gutter Detail (8-7-23)
- 543-07-4/4, Metal Railing NM Type A42 Rail to Thrie Beam Connection (8-7-23)
- 543-09-1/1, Bridge Number Plate (4-25-20)

Standard Section 562 – Bridge Joint Strip Seals

- 562-01-1/3, Bridge Joint Strip Seal (8-16-23)
- 562-01-2/3, Bridge Joint Strip Seal Type “A” Installation (8-16-23)
- 562-01-3/3, Bridge Joint Strip Seal Type “B” Installation (8-16-23)

Standard Section 602 – Slope and Erosion Protection Structures

- 602-01-1/2, Wire Enclosed Riprap Class “A” (10-5-21)
- 602-01-2/2, Wire Enclosed Bridge Abutment Riprap Class “A” (10-5-21)
- 602-05-1/1, Gabion Retaining Wall Details (7-26-21)

Standard Section 606 – Metal Barrier, Cable Barrier and Concrete Wall Barrier

- 606-GR31-17/20, Guardrail Connection Details (7-13-21)
- 606-17-1/9, Concrete Wall Barrier Type 42 General Notes and Rebar Schedule (7-21-21)
- 606-17-2/9, Concrete Barrier Wall Type 42 (7-21-21)
- 606-17-3/9, Concrete Barrier Wall Type 42 Over Culvert (7-21-21)
- 606-17-4/9, Concrete Wall Barrier Type 42 Sections (7-21-21)
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- 730-01-1/3, Weigh-In-Motion (WIM) Undivided Section Details (12-17-19)
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- 730-03-1/2, Radar Continuous Count Station 1 to 4 Lanes Single Sensor (12-17-19)
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- 750-05-1/1, ITS Equipment Cabinet Details (7-21-21)

*Standard Drawings included in the Index of 2019 Standard Drawings book. However, Standard Drawings were inadvertently omitted from the Standard Drawings book.

The added Standard Drawings are available at the following link:

https://dot.state.nm.us/content/nmdot/en/Standards.html

SECTION 7

Special Provisions

INDEX OF SPECIAL PROVISIONS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction (Standard Specifications) shall govern construction of this Project unless otherwise noted.

The following Special Provisions shall supplement the above Standard Specifications.

STANDARD SPECIAL PROVISIONS

Modifying Section 100: Section 100 for TLPAs (4/21/23)
Clarifying Section 106.12: Buy America Requirements (10/3/22)
For Section 106-A: Build America/Buy America Product Information Sheet (5/11/23)
For Section 109: Electronic Ticket Delivery System (7/24/24)
Modifying Sections 511: Concrete Structures, 532: Penetrating Water Repellent Treatment, 533: Concrete Structure Repair, 606: Metal Barrier, Cable Barrier and Concrete Wall Barrier (2/8/21)
Modifying Sections 606: Metal Barrier, Cable Barrier and Concrete Wall Barrier, 701: Traffic Signs and Sign Structures, 703: Traffic Markers, 720: Vehicular Impact Attenuator Units and Sand Barrel Impact Attenuator Units (3/4/20)
Modifying Section 303: Base Course (8/8/22)
Modifying Section 402: Asphalt Materials and Mineral Admixtures (8/8/22)
Modifying Section 405: Detour Pavements (7/26/22)
Modifying Section 407: Tack Coat (1/2/25)
Modifying Section 408: Prime Coat (1/2/25)
Modifying Section 416: Minor Paving (1/21/21)
Modifying Section 423: Hot Mix Asphalt (HMA) (Major Paving) (5/28/19)
Modifying Section 452: Sealing and Resealing Concrete Pavement Joints (7/13/20)
Modifying Section 501: Driven Piles (4/6/20)
Modifying Section 502: Drilled Shafts (9/29/21)
Modifying Section 504: Load Testing of Bearing Piles (4/6/20)
Modifying Section 509: Portland Cement Concrete Mix Designs (6/13/22)
Modifying Section 511: Concrete Structures (2/1/21)
Modifying Section 512: Superstructure Concrete (4/15/19)
Modifying Section 514: Concrete Barrier Railings for Bridges (12/20/19)
Modifying Section 518: Prestressed Concrete Members (3/10/22)
Modifying Section 537: Polyester/Epoxy Concrete Overlay (12/20/19)
Modifying Section 540: Steel Reinforcement (7/15/21)
Modifying Section 542: High-Strength Bolts (5/27/22)
Modifying Section 543: Metal Railing (12/20/19)
Modifying Section 548: Coating of Concrete (2/8/21)
Modifying Section 560: Elastomeric Bearing Pads (5/9/19)
Modifying Section 562: Bridge Joint Strip Seals (12/7/20)

Modifying Section 571: Structural Plate Structures (2/20/24)
Modifying Section 601: Removal of Structures and Obstructions (5/14/21)
Modifying Section 602: Slope and Erosion Protection Structures (1/23/24)
Modifying Section 603: Temporary Erosion and Sediment Control (6/17/24)
Modifying Section 606: Metal Barrier, Cable Barrier and Concrete Wall Barrier (5/14/24)
Modifying Section 607: Fence (7/17/23)
Modifying Section 610: Cattle Guards (9/10/21)
Modifying Section 618: Traffic Control Management (9/22/20)
Modifying Section 621: Mobilization (4/8/22)
Modifying Section 622: Field Laboratories and Field Offices (5/3/23)
Modifying Section 632: Revegetation (10/8/24)
Modifying Section 635: Bat Boxes (7/25/23)
Modifying Section 664: Landscape Planting (2/29/24)
Modifying Section 701: Traffic Signs and Sign Structures (2/8/24)
Modifying Section 702: Construction Traffic Control Devices (5/14/24)
Modifying Section 704: Pavement Markings (8/7/20)
Modifying Section 704-A: Temporary Marking Tape (12/23/19)
Modifying Section 704-B: Retroreflective Preformed Plastic Markings (Tape) (12/23/19)
Modifying Section 704-C: Hot Thermoplastic Markings (12/23/19)
Modifying Section 704-D: Preformed Thermoplastic Pavement Markings (12/23/19)
Modifying Section 706: Signal and Lighting Service Systems (3/7/19)
Modifying Section 713: Detectors (5/24/19)
Modifying Section 716: Luminaires (5/1/19)
Modifying Section 902: Quality Control (2/11/19)
Modifying Section 904: Quality Level Analysis (QLA) (1/1/19)
Modifying Section 905: Quality Assurance for Minor Paving (6/17/24)
Modifying Section 906: Minimum Testing Requirements (MTR'S) (5/12/22)

April 21, 2023

SPECIAL PROVISIONS
MODIFYING
DIVISION 100: GENERAL PROVISIONS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Sections 101 through 109** in its entirety and replace with the following:

SECTION 101: ABBREVIATIONS, SYMBOLS, TERMS, AND DEFINITIONS

101.1 ACTIVE VOICE, IMPERATIVE MOOD, REFERENCES, USE OF LANGUAGE

These General Conditions were developed with an emphasis on the active voice. In a sentence written in the active voice, someone acts on something. For example: “The Engineer will take a sample.” A similar sentence in the passive voice “A sample will be taken” would be unclear about who was responsible for taking the sample.

This edition of the Standard Specifications also makes use of the imperative mood. The imperative mood is used when the party issuing an instruction and the party receiving it are already understood. In these Standard Specifications, the T/LPA is stating its requirements or directions for Work to the Contractor; such statements have the same force as if they contained the word “shall.” In an imperative sentence such as, “Pour the concrete,” the T/LPA is indicating that it requires the Contractor to pour the concrete. Before an Award of a Contract, imperative statements are directed to the Bidder. After a Contract has been Awarded, imperatives are directed to the Contractor. The Standard Specifications are divided into various parts in this order: divisions, sections and subsections.

The T/LPA will identify parties other than the Bidder or Contractor to whom it gives a responsibility in these Standard Specifications. In phrasings where the responsible party has already been clearly identified or in factual statements when it is not important to do so, the T/LPA may use the passive voice.

The word “shall” is used in a mandatory or imperative sense and signifies that the T/LPA is imposing a duty on a person or body that is the subject in the sentence. The word “may” is used to signify the conferring of a discretionary power, privilege, or right. However, use of the term “may not” signifies that a right, privilege, or power is intended to be denied.

The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

The Contractor, having an obligation to comply with, observe, and comply with all federal and State law and regulations, any reference to any federal or State law or regulation shall constitute a reference to any applicable amendment or successor law or regulation.

101.2 ABBREVIATIONS

When the following abbreviations are used in the Plans, the Specifications, other Contract documents, and T/LPA correspondence, their meaning is as follows:

Table 101.2:1
Acronyms and Abbreviations

Acronym or short form	Full name or meaning
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AI	Aggregate Index
AMRL	AASHTO Material Reference Laboratory
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers' Association
AWWA	American Water Works Association
CBC	concrete box Culvert
CCD	closed circuit detection
CD	compact disc
CFR	Code of Federal Regulations
CMP	corrugated metal pipe
CN	control number
CPM	Critical Path method
CTR	certified test report
CWB	concrete wall barrier
DBE	disadvantaged business enterprise
EA	Entrance Angle
ESAL	equivalent single axle loading
FHWA	Federal Highway Administration
GRT	gross receipt tax
HDPE	high density polyethylene
HFE	high-float emulsion
HID	high-intensity discharge
HMA	hot-mix asphalt
HMWM	high molecular weight methacrylate
IES	Illuminating Engineering Society
IMC	intermediate metallic conduit
ITE	Institute of Transportation Engineers
JMF	Job Mix Formula
LCD	liquid crystal display
LL	liquid limit

Table 101.2:1 Acronyms and Abbreviations	
Acronym or short form	**Full name or meaning**
SDS	Safety Data Sheet
MTR	mill test report
MUTCD	Manual on Uniform Traffic Control Devices
MFBM	Thousand Board Feet
NCHRP	National Cooperative Highway Research Program
NEC®	National Electrical Code®
NEMA	National Electrical Manufacturers Association
NMAC	New Mexico Administrative Code
NMDA	New Mexico Department of Agriculture
NMED	New Mexico Environment Department
NMSA	New Mexico Statutes Annotated
NMSSPWC	New Mexico Standard Specifications for Public Works Construction
NPDES	National Pollutant Discharge Elimination System
NTSC	National Transmission Standards Committee
OA	Observation Angle
OGFC	open-graded friction course
OSHA	Occupational Safety and Health Administration
PCC	portland cement concrete
PCCP	portland cement concrete pavement
PCI	Prestressed Concrete Institute
PCT	process control technician
PE-P	penetrating emulsified prime
PI	plasticity index
PTL	private testing Laboratory
PVC	polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
QCT	Quality Control technician
QLA	Quality Level Assurance
RAP	reclaimed asphalt pavement
ROW	Right of Way
SSPC	Society of Protective Coating (formerly Steel Structures Painting Council)
SWPPP	storm water pollution prevention plan
TERO	Tribal Employment Rights Organization
TTCP	Technician Training and Certification Program
TV	target value
UBC™	Uniform Building Code™
UL	Underwriters Laboratories
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
VMA	voids in mineral aggregate
VTM	voids in total mix
WMA	warm mix asphalt

101.3 SYMBOLS

Within the Specifications and Contract, reference to the English system of measurement symbols is a reference to the U.S. Customary (Inch-pound) system.

Some of the symbols for units of measurement used in the Specifications and in the Bid Schedule are defined as shown in Table 101.3:1, “Measurement Symbols.” The symbols for other units of measurement used in the Specifications are as defined in the various Specifications and tests referenced in the Specifications.

Table 101.3:1
Measurement Symbols

Physical Characteristic	Unit name	Symbol
Length	Microinch	µin
	mil (0.001 inch)	Mil
	Inch	In
	Foot	Ft
	Yard	Yd
	Mile	Mi
Area	square inch	in^2
	square foot	ft^2
	square yard	yd^2
	square mile	mi^2
	Acre	Acre
Volume	Pint	Pt
	Quart	Qt
	Gallon	Gal
	cubic inch	in^3
	cubic foot	ft^3
	cubic yard	yd^3
Mass (weight)	Ounce	Oz
	Pound	Lb
	ton, short (2,000 lb)	Ton
Temperature	degree Fahrenheit	°F
Time	Millisecond	Ms
	Second	S
	Minute	Min

Table 101.3:1
Measurement Symbols

Physical Characteristic	Unit name	Symbol
	Hour	H
Speed	miles per hour	Mph
Pressure	pound-force per square inch	Psi
Power, energy and electricity	Watt	W
	Kilowatt	kW
	Milliampere	mA
	Ampere	A
	Volt	V
	Volt-ampere	VA
	Ohm	Ω
	Hertz	Hz
	Joule	J
	Lumen	Lm
	Footcandle	Fc
	Horsepower	Hp
Force	pound-force	Lbf
	1,000 pounds-force	Kip
Torque	pound-force foot	lbf•ft
Viscosity, dynamic	Centipoises	cP
	Poise	P
Viscosity, kinematic	Centistokes	cSt
Flow	gallons per minute	Gpm
Concentration	parts per million	Ppm
Inductance	Henries	H
Frequency, concrete consolidation	vibrations per minute	Vpm
Sound	Decibel, A-Scale	dbA

101.3.1 Engineer's Estimate Symbols

The measurement symbols shown on the Engineer's Estimate may differ from those found in the rest of Contract documents. Table 101.3.1:1, “Symbols for Engineer's Estimate,” lists and defines the symbols found in both the Engineer’s Estimate and Contract documents.

Table 101.3.1:1
Symbols for Engineer's Estimate

Symbol	Unit of measure or meaning
LS	Lump Sum
EACH	Each
ALOW	Allowance
L.F.	Linear Foot
MILE	Mile
S.F.	Square Foot
S.Y.	Square Yard
SYIN	Square Yard Inch
ACRE	Acr
C.Y.	Cubic Yard
LB	Pound
TON	Ton

101.4 TERMS AND DEFINITIONS

Unless the context otherwise requires, if the following capitalized terms are used in the Contract documents and T/LPA correspondence, the intent and meaning shall be interpreted as follows:

Acceptance. (Also called **Accept, Accepted and Acceptable**) 1) The determination by the **T/LPA** that **Materials** and **Work** are in compliance with the **Contract**. 2) The process by which the **T/LPA** determines whether or not the quality of produced **Material** or **Work** is **Acceptable** pursuant to the **Contract**, including sampling, testing, certifications and assessment of test results. **Acceptance** shall not be construed as a warranty by the **T/LPA** that the **Contractor's** methods will succeed or will be the most efficient or economical method of accomplishing the **Work**, nor shall the term be construed that the actual **Materials** used in construction will perform as represented in test results supplied to the **T/LPA** by the **Contractor**.

Addendum. A change in the **Contract** issued after the **Advertisement** and before the **Bid Opening**.

Advertisement. A public announcement, as required by law, inviting **Bids** for **Work** to be performed or **Materials** to be provided. Also called **Invitation for Bids**.

Apparent Low Bidder. The **Bidder** who submits a **Total Bid Amount** that is numerically lower than the **Total Bid Amount** submitted by other **Bidders**, but who's **Bid** may later be subject to rejection, recalculation or other modification that may change the order of **Bidders**.

Award. The **T/LPA's** selection of a **Bidder's Bid** subject to the **Contractor's** and **T/LPA's** execution of the **Contract**.

Base Course. The layer or layers of specified **Material** placed on a **Subbase** or a **Subgrade** normally used to support a **Surface Course**.

Basis of Payment. The terms under which **Work** is paid, as a designated **Pay Item** in accordance with the quantity measured and the **Pay Unit**. Basis of Payment includes the performance of all **Work** and furnishing of all labor, **Equipment**, **Materials** and **Incidentals** described in the text of a specific item included in that **Contract**.

Bid. The offer of a **Bidder** for performing the **Work** at the prices quoted.

Bidder. An individual, partnership, firm, corporation, joint venture, or their authorized representative submitting a **Bid**.

Bid Form. The approved form on which the **T/LPA** requires **Bidders** to prepare and submit **Bids**.

Bid Guaranty. The security provided with a **Bid** to guarantee that the **Bidder** will enter into the **Contract** if the **T/LPA Accepts** its **Bid**.

Bid Item (Contract Item, Pay Item). A specifically described unit of **Work** for which a **Bidder** provides a **Bid Item Unit Price** and **Bid Item Price**. The **Bid Items** become **Contract Items** when the **Contract** is fully executed. The **Contract Items** become **Pay Items** when calculating **Progress Payments**.

Bid Item Price. The extended price established by the **Contractor** for each individual **Bid Item** on the **Bid Schedule** which is the product of the **Bid Item** quantity and the **Bid Item Unit Price.**

Bid Item Unit Price. The price established by the **Contractor** for each unit of an individual **Bid Item** on the **Bid Schedule**. A **Bid Item Unit Price** reflects a **Bidder**'s actual and direct costs for the item plus a reasonable proportionate share of the **Bidder's** anticipated profit, overhead costs, and other indirect costs.

Bid Opening. A public reading of the properly submitted **Bids**, on a date established by the **Advertisement**.

Bid Schedule. Listing or table of **Bid Items** containing the estimated quantities for which **Bid Item Unit Prices** are invited.

Borrow Pit. A **Contractor** selected source outside the **Roadway Prism** from where suitable **Material** is obtained.

Breakaway. The ability of a system to yield at a predetermined impact force.

Bridge. A **Structure** having a length — as measured along the center of the **Roadway** — of more than 20 ft between undercopings of abutments or extreme ends of openings for multiple boxes or extreme ends of openings for Culverts placed in series with a spacing between Culverts not exceeding ½ the diameter, and carrying a pathway or **Roadway** over a depression or obstacle. It includes all appurtenances necessary to its proper use. The length of a **Bridge Structure** is the distance along the line of survey stationing back-to-back of backwalls of abutments, if present, or end-to-end of the **Bridge** floor, and in no case less than the total clear opening of the **Structure**. The **Bridge Roadway** width is that clear unobstructed width of **Bridge** deck available for vehicle use measured normal to the centerline of the **Bridge**.

Business Hours. **Business Hours** are the hours during the Day as established by the governing body of the **T/LPA** in which business is commonly conducted.

Calendar Day. Each and every **Day** shown on the calendar, beginning and ending at midnight. Also referred to as "**Day.**"

Certificate of Compliance. A certification, including a signature by a person having legal authority to act for the manufacturer, stating that the product, assembly, or **Material** to be incorporated into the **Project** was fabricated in accordance with and meets the applicable terms of the **Contract**.

Change Order. A **Change Order** is the only method authorized for changing the **Contract**. A written order, with or without the consent of the **Contractor**, implementing the **Contract** changes. A **Change Order** may consist of a **Supplemental Agreement** or **Field Sheet**.

Chief Engineer. The **Engineer** in charge of the design of **Projects**, acting either directly or through his duly authorized representatives, for the **T/LPA**.

Chief Procurement Officer. The person designated by the T/LPA who is responsible for the control of procurement of items of tangible personal property, services or construction. "**Chief Procurement Officer**" includes the **State** purchasing agent.

Chill Factor. The ambient temperature (in degrees Fahrenheit) minus wind velocity (in miles per hour).

Claim. A timely **Contractor** request or demand for a **Contract** adjustment, equitable adjustment, additional time or compensation and other contractual damages, **Delay** damages, an extension of **Contract Time**, certified pass-through **Subcontractor Claims**, or for any other remedy arising from a dispute, disagreement, or controversy concerning respective rights and obligations under the **Contract**.

Commercial Material Source. A **Material** source that has been utilized by a private producer in a commercial operation from which **Material** has been sold within the last 24 months before the date of the letting.

Completion Dates. Contracts may have the following **Completion Dates** as defined herein:
Substantial Completion Date;
Physical Completion Date; or
Mandatory Completion Date.

Construction Maintenance Easement (CME). A real property interest in land acquired by the **T/LPA** in conjunction with a **Highway, Street, or Road Project** to provide permanent access to private property to perform specific construction and maintenance functions.

Construction Liaison Engineer (CLE). An engineer employed by the **NMDOT** assigned to oversee each T/LPA administered **Project** to ensure compliance with Federal requirements throughout design and construction. The CLE will perform **Project** inspections on any/all **Project** files and will provide at a minimum a final inspection report on all **Projects**.

Construction Zone. The area within the **Right of Way** from the first traffic control sign announcing the **Road Work** to the last sign announcing the end of **Road Work** within which the **Contractor** shall perform construction activities.

Contract. The entire and integrated written agreement between the **T/LPA** and the **Contractor** setting forth the obligations of the parties, including, but not limited to, the performance of the **Work** and the **Basis of Payment**.

The **Contract** includes the **Advertisement**, **Required Documents for Bid Submittal**, **Standard Specifications**, **Supplemental Specifications**, **Special Provisions**, **Addenda**, **Notice To Contractors**, general and detailed **Plans**, **Standard Drawings**, and **Notice to Proceed** — also any **Change Orders** and agreements that are required to complete the construction of the **Work** in an **Acceptable** manner, including authorized extensions thereof, all of which constitute one (1) instrument.

Contract Bonds. The approved form of security executed by the **Contractor** and the **Contractor's Surety** or sureties. The performance bond guarantees complete execution of the **Contract** and all **Change Orders** pertaining thereto, and the payment bond guarantees payment of all legal debts pertaining to the construction of the **Project**.

Contractor. The individual, partnership, firm, corporation, or joint venture contracting with the **T/LPA** for performance of the **Work**.

Contract Time. The time specified in the **Advertisement** for completion of the **Contract**. This time may be defined as a specified fixed date(s), **Mandatory Completion Date**, a given

number of **Working Days**, or a given number of **Calendar Days** or a combination of the above. The **Contract Time** may be amended by a **Supplemental Agreement** to include authorized time extensions as the performance of the **Contract** requires.

County. The **County** in which the **Work** herein specified is to be done.

Cultural Resource. Any prehistoric or historic period artifact, site, building, **Structure**, material remains, or traditional use area resulting from, or associated with, human cultural activity. Historically important **Cultural Resources** are those eligible for inclusion on the National Register of Historic Places or placed on the New Mexico register of cultural properties either permanently or temporarily per NMSA 1978, Section 18-6-3 and the National Historic Preservation Act Section 106.

Cultural Resource Professional. An individual that is permitted to meet the requirements of the Cultural Properties Act, NMSA 1978, 18-6-1 through -17 and issued by the Cultural Properties Review committee with the concurrence of the **State** Archaeologist and the **State** historic preservation officer or appropriate tribal preservation officer, or federal land managing agency when applicable.

Culvert. Any **Structure** not classified as **Bridge** or casing that provides an opening under a **Roadway**.

Critical Path. The longest continuous sequence of activities through the **Project** schedule that establishes the minimum overall **Project** duration to **Substantial Completion**.

Critical Path Method Schedule. A network based method to represent the **Contractor's** plan for constructing the **Project**. The **Critical Path Method Schedule** consists of two primary components 1) Activities that represent the entire **Project** scope of **Work** and 2) logic relationships that connect the activities to one another to determine the sequence of **Work**.

Day. Calendar Day.

Delay. Any event, action, force or factor that negatively impacts the **Critical Path** on the **Project**, whether it be excusable, inexcusable, nonexcusable, concurrent, compensable or noncompensable.

Deleterious Material. Unacceptable **Material** detrimental to the final product.

Detour. A temporary route for traffic (vehicular or otherwise) around a closed portion of a **Project.**

Debarment. Any final order of the secretary of the New Mexico General Services Department - **State** Purchasing Division, that denies a **Contractor** the right to **Bid** or offer to enter into a **Contract**, other than a contract for **Professional Services**, with the **State** purchasing agent or any company (entity) or individual that has been declared ineligible to receive

Federal **Contracts** or certain subcontracts and from certain types of Federal financial and nonfinancial assistance and benefits that is listed in the System for Award Management (SAM) electronic roster.

District. The six **Highway** construction **Districts** established by the **NMDOT** for the purpose of executing the **NMDOT's** construction, maintenance, and administrative activities.

District Engineer. The **Engineer** in charge of a **NMDOT District**.

Embankment. The portion of a **Roadway** that is below the **Subbase**, **Base Course**, and **Surface Courses** and that is built up in layers consisting principally of soil and broken rock or a combination thereof.

Engineer. Whenever the word "**Engineer**" is used in these General Conditions is shall be understood as referring to the licensed professional **Engineer** in the **State** of New Mexico designated by the T/LPA to be in charge for the T/LPA, acting personally or through any assistants duly authorized by the **Engineer**.

Entrance Angle (EA). The angle between the reference axis and the axis of incident light (Counter-clockwise rotation of the reference axis relative to the axis of incident light is considered positive.)

Environmental Professional. An individual qualified to perform **Hazardous Material** investigations. This individual must possess the qualifications described in 40 C.F.R. Section 312 Subpart C, the USEPA's Standards and Practices for All Appropriate Inquiries.

Environmental Bureau Manager. The individual in charge of the Environmental Bureau of the **NMDOT**.

Environmental Geology Bureau Manager. The individual in charge of the Environmental Geology Bureau of the **NMDOT**.

Environmental Resource. The physical and biological components of the human and natural environment.

Environmental Specialist. An individual with at least four (4) years of full-time paid experience in environmental investigations, including analyzing and preparing documentation needed to meet the FHWA approval requirements for the National Environmental Policy Act and related legislation.

Equipment. All machinery, tools, and **Equipment**, together with the necessary supplies for upkeep and maintenance, necessary for the construction and completion of the **Contract**.

Extra Work. Work not provided for in the **Contract** but found by the **Project Manager** to be essential to the satisfactory completion of the **Contract** within its intended scope.

Fabricator. A **Supplier** that fabricates or supplies **Structural Steel** or other structural items.

Field Sheet. A type of **Change Order** that does not require a **Contractor's** signature.

Final Acceptance: The **T/LPA's** payment of the balance due on the final payment voucher.

Free Float: The amount of time identified in a specific activity that can be delayed without causing a delay to successor activities.

Total Float or Float: The amount of time that an activity can be **Delayed** without causing a **Delay** to the **Critical Path** or negatively impacting the **Project Completion Date**.

Force Account. The **Basis Of Payment** for the directed performance of **Work**, with payment based on the actual cost of labor, **Equipment**, and **Materials**, and including various constant additives.

Fractured Face. At least one-half of the projected particle area exhibits a rough, angular, or broken texture with well-defined edges.

General Office. The **T/LPA's** main place of business unless otherwise designated by the **T/LPA**.

Hazardous Materials. Any substance, product, waste, or other **Material** of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to all applicable laws all as amended, or any other federal, **State**, or local statute law, ordinance, resolution, code, rule, regulation, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic, or dangerous waste, substance, or **Material**.

Highway, Street, or **Road.** A general term denoting a public way for purposes of vehicular or pedestrian travel.

Holiday. Any day recognized as a paid legal **Holiday** for the employees of the **T/LPA.**

Independent Assurance. A construction management tool in which a third party, not directly responsible for process control or **Acceptance**, provides an independent assessment of the **Work**, **Materials**, or the reliability of test results obtained from process control and **Acceptance** testing.

Incentive/Disincentive Provision. Predetermined adjustments to the **Contract** price.

Incidental. Occurring or likely to occur at the same time or as a result of other items of **Work** as

specified in the **Contract** for which no separate or additional payment will be made. Unless otherwise indicated in the **Contract**, **Incidental** costs shall be included in the **Contractor's Bid Item Unit Price** for **Bid Item** 621000 Mobilization.

Indian Tribe. Any **Indian Tribe**, band, nation, or other organized group or community that is recognized by the United States as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Inspector. Individual assigned to make detailed inspections of **Contractor's Work**.

Job Mix Formula (JMF). The combined aggregate gradation and the percentage of each **Material** component in the mix.

Laboratory. A testing **Laboratory** of the **T/LPA**, **Contractor** or any other testing **Laboratory** that is AMRL Certified.

Landscape Architect. The individual designated to in charge of Landscape Architecture for the **T/LPA**.

Lighting and Signal Engineer. The **Engineer** in charge of the **T/LPA's** signal and lighting design.

Local Public Agency (LPA). A municipality, **City**, **County**, village, special authority or any other instrumentality of a local government sponsoring a federally funded transportation **Project** and determined to be qualified to assume the administrative responsibilities for such **Project** by the **NMDOT**.

Luminaire (Luminaries). A lighting device designed to illuminate the surface of a specific area from a mounting on a **Standard**, including the housing, optical control, lamps, and necessary ballasts.

Lump Sum. The price **Bid** by a **Contractor** as a single amount for a complete **Contract Item** as defined by the specifications, or price proposed by a **Contractor** as a single amount for the performance of **Extra Work**.

Major Contract Item. Any item, excluding mobilization, having a **Bid Item Price** of ten percent (10.0%) or more of the **Total Bid Amount** for the **Contract**, minus the amount **Bid** for mobilization.

Mandatory Completion Date. The date on which the **Project** shall be completed. This may be either **Substantial Completion** or **Physical Completion** as specified in the **Contract**. If neither is specified, it shall mean "**Substantial Completion**."

Materials. Any substances specified for use in the performance of the **Work**.

Median. That portion of a **Highway, Street or Road** separating the **Traveled Way** for traffic in opposing directions.

Method of Measurement. The method in which a **Pay Item** is measured to conform with the **Pay Unit**.

NMDOT. The New Mexico Department of Transportation as constituted under the laws of the **State** for the administration of transportation **Work**. Per the Stewardship and Oversight Agreement between FHWA New Mexico Division and **NMDOT**, the **NMDOT** is responsible and accountable for T/LPA compliance with all applicable Federal laws and regulations.

Nominal Maximum Sieve. One (1) sieve size larger than the first sieve that retains ten percent (10%) or more of a given **Material**.

Non-Conformance. Contractor's failure to comply with the **Contract**. **Non-Conformances** are subject to a withholding of 25% of the **Progress Payment**. **Non-Conformance** withholdings will be paid at the subsequent **Progress Payment** following resolution of all **Non-Conformances**.

Notice of Preliminary Award of Contract. The **T/LPA's** written notification issuing preliminary **Award** that is provided before the **Contractor** and the **T/LPA** execute the **Contract**.

Notice to Proceed. Written notice to the **Contractor** to proceed with the **Contract Work** including the beginning date of **Contract Time**.

Notice to Contractors. An addition to the **Contract** made prior to Advertisement.

Observation Angle. The angle between the axis of incident light and the observation axis.

Partial Suspension. The suspension of **Work** on some, but not all **Contract Items**.

Pavement Structure. The combination of **Subbase**, **Base Course**, and **Surface Course** placed on a **Subgrade** to support and distribute the traffic load to the **Roadbed**.

Pay Adjustment. An adjustment to a payment for a specific portion of the **Work** based on the quality of the **Work** performed by the **Contractor** and **Accepted** by the **T/LPA**. Other **T/LPA** documents may refer to this term as disincentives, incentives, pay reductions, price adjustments, and/or price reductions.

Pay Unit. The unit of measurement for **Acceptable Work**.

Petrographer. Individual with credentials in the study of petrography.

Physical Completion. All the **Work** is physically completed on the **Project** and is **Accepted** by the **District Coordinator**. All documentation required by the **Contract** and by law shall be furnished by this date.

Pit Agreement. An agreement between the **Contractor** and property owner to provide **Material**.

Plans. The Professional **Engineer** stamped and approved **Contract** drawings showing profiles, typical cross sections, that shows the location, character, dimensions, and general or specific details of the **Work** to be done or exact reproductions of the same.

Post Construction Plans. Final drawings reflecting **Work** and quantities performed under the **Contract**.

Pre-Bid Due Diligence. The **Bidder's** exercise of due diligence before submittal of a **Bid** which includes the careful, independent examination of the site of the proposed **Work**, including **Materials** pits and haul **Roads**, the **Bid Package**, all **Contract** documents including **Standard Specifications, Special Provisions, Supplemental Specifications**, and standard drawings and b which are representative of the condition at the precise location where each boring was made but conditions may vary between boring locations.

Pre-Cast Inspector. The **T/LPA's** authorized representative as indicated in the **Contract**.

Pre-Construction Conference. A meeting between the **T/LPA** and the **Contractor** prior to any **Work** taking place to review and discuss **Contract** requirements.

Pre-Deck Conference. A meeting between the **T/LPA** and the **Contractor** prior to the commencement of deck placement operations to review, discuss and coordinate the **Work** associated with the deck placement.

Pre-Drilled Shaft Conference. A meeting between the **T/LPA** and the **Contractor** prior to the commencement of drilling operation to review, discuss and coordinate the **Work**.

Pre-Fabrication Conference. A meeting between the **T/LPA** and the **Contractor** prior to any fabrication **Work** taking place**.**

Pre-Pave Conference. A meeting between the **T/LPA** and the **Contractor** prior to the commencement of paving operations to review, discuss and coordinate the **Work** associated with paving operations.

Pre-Pile Driving Conference. A meeting between the **T/LPA** and the **Contractor** prior to the commencement of pile driving operations to review, discuss and coordinate the **Work**.

Pre-Seeding Conference. A meeting between the **T/LPA** and the **Contractor** prior to the commencement of seeding operations to review, discuss and coordinate the **Work**.

Professional Service. Is a service provider that may or may not be a **Subcontractor,** who provides a specialized service requiring professional licensure by the **State** of New Mexico, e.g. Professional **Engineers**, Professional Surveyors and Attorneys. The **Professional Service** distinction in this **Contract** is separate from the professional service definition in the Department of Workforce Solutions regulations.

Profile Grade. The location of the **Profile Grade** will be designated by the **T/LPA** and shown on the **Plans**. The profile grade line is usually the centerline and elevation to which the **Roadway** will be built. The **Profile Grade** may be used to designate the gradient and elevation of other construction features such as tops of curb, channels, **Sidewalks**, etc.

Progress Payment. A monthly payment, including zero dollar ($0.00), provided by the **T/LPA** to the **Contractor** for **Work**, subject to adjustment by the **T/LPA**.

Project. The specific section of property on which **Work** is to be performed as specified in the **Contract**.

Project Manager. Wherever the term “Project Manager” is used it shall refer to the person, or his designee, assigned by the T/LPA to facilitate the construction **Contract** for the T/LPA.

Project Limits. The beginning of the **Project** (BOP) to the end of the **Project** (EOP) as designated in the **Contract**.

Punch List. A list, prepared by the **Project Manager**, of corrective **Work** items not conforming with the **Contract** and to be completed by the **Contractor**. The final **Punch List** is provided after **Substantial Completion** but before **Contractor’s** request for final inspection. The **Punch List** is limited to items of the **Work** that are necessary to correct minor imperfections, deficiencies and deviations from the requirements of the **Contract** but which have no material or adverse effect on the full operability of the **Project** for its intended purpose and may be safely and effectively used by the public without **Delay**, disruption, or impediments.

Quality Assurance (QA). The **T/LPA**’s sampling, testing, inspection, and other activities to determine payment and make **Acceptance** decisions. Includes **Quality Control**, **Acceptance** by the agency, and use of qualified **Laboratories** by both parties.

Quality Control (QC). The **Contractor’s** actions and considerations necessary to assess production and construction processes so as to control the level of quality being produced in the end product. **Quality Control** includes sampling and testing by the **Contractor** to monitor and adjust its process. **Quality Control** does not include **Acceptance** sampling and testing by the **T/LPA**.

Quality Level Analysis (QLA). Is equivalent to **QC/QA**.

Required Documents for Bid Submittal. Those documents specified for Bid Submittal including, but not limited to, **Advertisement**, **Bid Form**, **Bid Schedule**, **Bid Guaranty**, Bidder's List of Quoters, Non-Debarment Certification, Pay Equity Acknowledgment, Disadvantaged Business Enterprise Goal Form A-585, Subcontractor's Fair Practices Act Compliance.

Resource Loading. The **Contractor's** assigning of resources necessary to develop an **Acceptable Critical Path Method Schedule** for the **Project**. **Resource Loading** shall include personnel, production rates, **Contract** dollars earned, **Materials**, facilities and **Equipment** associated with each activity within the CPM.

Lowest Responsible Bidder. The **T/LPA** determined **Bidder** who submits the lowest adjusted and **Responsive Bid.** The **Bidder** shall also be responsible and when required furnish information and data to prove that its financial resources, production or service facilities, personnel, service reputation and experience are adequate to make satisfactory delivery of the services, construction or items of tangible personal property as described in the **Advertisement.**

Responsive Bid. A **Bid** which conforms in all material respects to the requirements set forth in the **Advertisement** and the **Contract**. Material respects of a **Bid** include but are not limited to price, quality, quantity or delivery requirements.

Right of Way (ROW). A general term denoting land or property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

Roadbed. The graded portion of the **Highway, Street or Road,** with top and side slopes prepared as a foundation for the **Subgrade**, **Pavement Structure**, and **Shoulders**.

Roadway. A general term denoting the **Traveled Way** and the **Shoulders**.

Roadway Prism. The **Roadway** construction limits within the outside limits of the side slopes.

Shop drawings. Contractor, Supplier or Fabricator-furnished drawings or sets of drawings typically required for **T/LPA** review and approval of **Work** components. **Shop Drawings** shall include detailed information to compare to the **Contract** for approval prior to fabrication.

Shoulder. The portion of the **Roadway** contiguous with the **Traveled Way** for accommodation of stopped vehicles, for emergency use, and for lateral support of **Base** and **Surface Courses**.

Sidewalk. That portion of the **Roadway** primarily constructed for use by pedestrians.

Signal Assembly. A housing containing the required illuminated **Traffic Signal** indications (vehicular and pedestrian) mounted on a **Standard**.

Special Provisions. Additions and revisions to the **Standard** and **Supplemental Specifications** covering conditions applicable to an individual **Project**.

Specifications. A general term applied to all written provisions and requirements pertaining to performance of the **Work**.

Specific Intensity. Candlepower of the returned light at the chosen **Observation** and **Entrance Angles** for each lumen per square meter, foot-candle of illumination at the reflector on a plane perpendicular to the incident light.

Standard. In traffic lighting, a pole-type **Structure** that supports and positions signal and lighting devices, including arms, mounting hardware, and lowering and **Breakaway** devices as required by the **Contract**.

Standard Drawings. Detailed drawings for specific items of **Work** approved for repetitive use.

Standard Specifications. The **NMDOT's** book of **Specifications** approved for use in the construction of Public Works Projects.

State. The State of New Mexico acting through its authorized representatives.

State Geotechnical Engineer. The **Engineer** in charge of the **NMDOT's** Geotechnical Engineering/Exploration Section of the **State** Materials Bureau.

State Pavement Engineer. The **Engineer** in charge of the **NMDOT's** Pavement Management and Design Bureau.

Structures. Buildings, **Bridges**, **Culverts**, catch basins, drop inlets, retaining walls, cribbing, manholes, end-walls, sewers, service pipes, under drains, foundation drains, and other such features that may be encountered in the **Work**.

Structural Steel. Steel shapes, plates, H-piling, sheet piling, and any other items identified in the **Contract**.

Subbase. The layer or layers of specified **Material** thickness placed on a **Subgrade** to support **Surface Courses**.

Subcontractor. An individual, partnership, firm, corporation, or joint venture, at any tier, other than a **Trucker**, who is performing **Work** on the **Project**. A **Subcontractor** has no privity of **Contract** with the **T/LPA** and has no direct or indirect cause of action against the **T/LPA** for any **Claim** or cause of action, including nonpayment by the **Contractor**, arising out of the **Project**.

Subgrade. The portion of the **Roadbed** prepared as a foundation for the **Pavement Structure**.

Substantial Completion. The **Day** following the last charged **Day** and when all the following items are met:

1. All **Critical Path** activities on the **Project** have been completed and deemed **Acceptable**;
2. The **Project** is complete such that it can be safely and effectively used by the public;
3. The **Contractor** has requested a determination of **Substantial Completion** from the **– District Coordinator**; and
4. The **District Coordinator** has made a determination that the **Project** is **Substantially Complete**.

For safe and effective use by the public, it is the point at which all the following **Work** is complete (or as otherwise defined in the **Contract**):

- **Bridge** deck;
- **Pavement Structure**;
- **Shoulder**;
- Permanent signing;
- A minimum of one (1) application of striping;
- Traffic barrier;
- Signalization and Lighting; and
- Safety appurtenances.

Substructure. The **Bridge** below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the backwalls, wingwalls, and wing protection railings.

Superintendent. The **Contractor's** agent authorized in writing to be in responsible charge of the **Project**.

Superstructure. The entire **Bridge** except the **Substructure**.

Supplemental Agreement. A type of **Change Order** that may require **Contractor** signature.

Supplemental Specifications. Approved additions and revisions to the **Standard Specifications**.

Supplier. Any individual, partnership, firm, corporation, or joint venture that manufactures, fabricates or supplies **Materials** to be incorporated into a construction **Project** but who performs no actual **Work** on the **Project** site.

Surety. The corporation, partnership, or individual, other than the **Contractor**, executing a bond furnished by the **Contractor**.

Surface Course. Layer or layers of a **Pavement Structure** designed to accommodate the traffic

load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate.

Surfacing Pit. A source from which suitable **Material** for the production of **Surface Course** aggregate is obtained.

Temporary Construction Permit (TCP). A temporary interest in land acquired in conjunction with a **Project** to provide for the temporary use of private property for the duration of the **Project** to perform construction activities as designated in the **Contract**.

Technical Irregularity. A minor informality or irregularity that is not a material defect of a **Bid**, that is a matter of form that can be waived without prejudicing other **Bidders**, or result in a change to the order of **Bidders**.

Termini. A general term used to describe the **Project Limits**, and including the beginning and end of the **Project**, its **Right of Way**, pit sites, haul **Roads**, and temporary and permanent construction or maintenance easements.

Tribal/Local Public Agency (T/LPA). A Federally recognized **Indian Tribe**, a municipality, **City**, **County**, village, or other special authority sponsoring a federally funded transportation **Project** and determined to be qualified to assume the administrative responsibilities for such **Project** by the **NMDOT**.

T/LPA District Coordinator. NMDOT person assigned to coordinate and work directly with the **T/LPA** and the **NMDOT** Bureaus, Divisions, and Offices during construction.

T/LPA Region Coordinator. NMDOT person assigned to coordinate and work directly with the **T/LPA** and the **NMDOT** Bureaus, Divisions, and Offices during design.

Total Bid Amount. The sum of all the **Bid Item Prices** on the **Bid Form**. The **Total Bid Amount** represents the total cost of performing all the **Work** described in the **Contract** based upon estimated quantities.

Total Original Contract Amount. The total amount **Bid** as compensation for the **Contract**.

Town, City, County or **District.** Subdivisions of the **State** used to designate or identify the location of the proposed **Work**.

Traffic Lanes. See **Traveled Way**.

Traffic Services Engineer. The **T/LPA's** representative for traffic engineering.

Traffic Signal. The complete installation of a traffic control system at an intersection, including the illuminated signal indications, supports, electrical controls, and distribution system.

Traveled Way. The portion of the **Right of Way** designated for the movement of vehicles, exclusive of **Shoulders** and Auxiliary Lanes.

Trucker (Also called Trucking, Trucking Deliveries, Deliveries and Hauling)**.** A **Trucker** is an individual, partnership, firm, corporation, or joint venture that transports or delivers **Materials** to and from the **Project** and does not perform **Work** on the **Project** site. A **Trucker** transports, but does not place, **Materials** (i.e. pit **Materials**, plant **Materials**, fabricated **Materials**, demolished and milled **Materials**, trash and waste **Materials**).

Unbalanced Bid. A **Bid** containing **Bid Item Unit Prices** that are unbalanced, to the potential detriment of the **T/LPA**. There are two types of **Unbalanced Bids**; (1) mathematically unbalanced and, (2) materially unbalanced. The mathematically **Unbalanced Bid** is a **Bid** containing **Lump Sum** or unit **Pay Items** which do not reflect reasonable actual costs plus a reasonable proportionate share of the **Bidder's** anticipated profit, overhead costs and other indirect costs but not necessarily to the detriment of the **T/LPA**. These costs should be related to the performance of the items in question. The materially **Unbalanced Bid** is a mathematically **Unbalanced Bid** which the **T/LPA** determines leaves reasonable doubt that **Award** will result in the lowest ultimate cost to the **T/LPA** or that **Award** is in the public interest.

Value Engineering Cost Proposal. A **Contractor**-provided form that details an alternative to the **Work** methods or **Materials** specified in the **Contract** that establishes a better or approved-equal product or result without affecting the functional purpose of the **Work** being revised, and that produce a net savings to the **T/LPA**.

Work. The providing of all documentation, supervision, labor, **Materials**, **Equipment**, transportation, and other **Incidentals** necessary for the successful completion of the **Project**, the successful completion of **Pay Items**, and the carrying out of the duties and obligations imposed by the **Contract**.

Working Day. Every **Day** except Saturdays, Sundays, and **Holidays**. Based on a review of weather conditions and the actual **Work** performed by the **Contractor,** the **Project Manager** will determine (between the end of the **Day** and noon of the next **Day**) if the **T/LPA** will charge a **Working Day**. If the **Contractor Works** for six (6) or more hours on a Saturday, Sunday, or **Holiday**, a **Working Day** will be charged.

Working Drawings. Contractor-furnished documents including, but not necessarily limited to:

1. Stress sheets;
2. Shop Drawings;
3. Bending diagrams for reinforcing steel;
4. Plans for erection, false **Work**, frames **Work**, cofferdams, and other items; and
5. Such other similar data required for the successful completion of the **Work**.

SECTION 102: BIDDING REQUIREMENTS AND CONDITIONS

102.1 RESERVED

102.2 PREQUALIFICATION

Prequalification of Bidders is a condition for submitting a Bid as authorized by the New Mexico Procurement Code, NMSA 1978, § 13-1-82 and 13-1-134 (1984, amended 2011).

Bidders shall be prequalified in accordance with 18.27.5 NMAC.

102.3 SUSPENSION AND DEBARMENT

The T/LPA may suspend, debar, reject a Bid as non-responsive, prohibit from the performance of Work, or terminate a Contract with any Bidder, Contractor, Subcontractor, at any tier, Suppliers, individual officers, directors in accordance with NMSA 1978, § 13-1-177 to 13-1-180 (1984, as amended 2011) and 1.4.7 NMAC or local ordinance. If an Indian Tribe or a LPA exempted from the Procurement Code pursuant to Section 13-1-98.K NMSA 1978 are authorized to do so under applicable law, the entity may suspend, debar, reject a Bid as non-responsive, prohibit from the performance of Work, or terminate a Contract with any Bidder, Contractor, Subcontractor, at any tier, Suppliers, individual officers, directors.

102.4 REQUIRED DOCUMENTS FOR BID SUBMITTAL

The T/LPA will make available to prospective Bidders the Required Documents for Bid Submittal. The Project's Required Documents for Bid Submittal are those specified in the Contract's Index of Required Documents for Bid Submittal.

102.5 REJECTION OF BIDS

102.5.1 Mandatory Rejection of Bids

The T/LPA reserves the right to reject any or all Bids, to waive technicalities, or to advertise for new Bids if, in the judgment of the T/LPA, the best interests of the public and the T/LPA would be promoted thereby. The T/LPA will reject Bid(s) for the following reasons:

1. A Bidder is not Prequalified;
2. A Bidder is determined to be a non-Responsible Bidder;
3. A Bidder fails to comply with any requirement in the Contract documents;
4. A Bidder omits any portion of the Required Documents for Bid Submittal when submitting its Bid;
5. A Bidder adds provisions reserving its right to Accept or reject an Award, or reserving its right to refuse to enter into a Contract after an Award;
6. A Bidder defaults under a previous Contract, including Contracts with other public entities;

7. The Bidder or its principals, individual officers or corporate directors are presently suspended, debarred, declared ineligible, or voluntarily excluded from bidding;
8. The T/LPA issued a notice of proposed Suspension or Debarment to the Bidder and the Bidder failed to timely respond to the notice of proposed Suspension or Debarment;
9. A Bidder submits more than one (1) Bid for the same Project control number;
10. A Bid Item Unit Price results in an Unbalanced Bid. The T/LPA may require the Apparent Low Bidder to detail and justify in writing how its prices were determined;
11. A Bidder contacts or communicates with any member of the T/LPA's governing body or any T/LPA personnel responsible for Bid review or the Award of the Contract in relation to the Bid review or Award process before the T/LPA's execution of the Contract, except for a response to an inquiry from the T/LPA's Chief Procurement Officer; or
12. A Bidder is subject of a judgment or verdict imposing a civil or criminal penalty under either the Federal False Claims Act or the New Mexico Fraud against Taxpayers Act.

102.5.2 Discretionary Rejection of Bids

The T/LPA may reject Bid(s) for the following reasons:

1. A Technical Irregularity exists;
2. A Bid Item Unit Price or Total Bid Amount differs significantly from the Engineer's Estimate or from other Bids;
3. A Bidder is responsible for uncompleted Work that might reasonably be expected to hinder or prevent the prompt completion of additional Work;
4. A Bidder fails to timely pay, satisfactorily settle, or provide security for the payment of Claims for labor, Equipment, Materials, supplies, or services legally due on previous or ongoing Contracts;
5. A Bidder performs previous Work unsatisfactorily, or fails to comply with Section 108.4, "Unsatisfactory Progress of Work;"
6. The T/LPA issues a notice of proposed Suspension or Debarment to the Bidder;
7. Evidence exists of collusion among Bidders or prospective Bidders; If the T/LPA becomes aware of an error in the quantity of a Bid Item shown in the Bid Schedule, Plans, or other Contract documents which may call into question the T/LPA's ability to determine which Bid will result in the lowest ultimate cost to the T/LPA;
8. To redesign the Project or change the Contract;
9. A potential benefit to the public or the T/LPA exists if the Contract is re-advertised; or when it is in the best interests of the public or the T/LPA.

102.6 INTERPRETATION OF QUANTITIES

The quantities appearing in the Contract are approximate only and are prepared for the comparison of Bids. Payment to the Contractor shall be made only for the actual quantities of Work performed and Accepted, or Materials furnished, or as otherwise specified (e.g., Computed Quantities) in the Contract.

102.7 EXAMINATION OF CONTRACT, SITE OF WORK, AND REQUESTS FOR CONTRACT INTERPRETATION

1. The submission of a Bid shall be considered conclusive evidence that the Bidder has exercised Pre-Bid Due Diligence and Accepts the conditions to be encountered in performing the Work and Accepts the provisions and requirements of the Contract.
2. When available, subsurface investigation records related to the Project will be provided by the T/LPA with the Bid package. When a log of test borings is included in the subsurface investigation record, the data shown in the individual log of each test boring apply only to that particular boring and are not intended to be conclusive as to the character of any Material between or around test borings. If Bidders use this information in preparing a Bid, it is used at its own risk, and Bidders are responsible for all conclusions, deductions, and inferences drawn from such information. If the Bidder requires additional information other than what the T/LPA furnished the Bidder may, at its own expense, and with T/LPA approval perform its own site investigation. The T/LPA providing subsurface investigation information does not relieve the Bidder from considering geotechnical data from previous Projects performed by the Bidder in the vicinity of the Project, and determining how subsurface conditions may affect the means, methods and cost of the Work. “The Bidder shall carefully study and compare all Contract documents and shall immediately report to the Chief Procurement Officer any error, inconsistency or omissions that may be discovered.”

102.7.1 Requests for Contract Interpretation

1. Requests for Contract interpretation shall be in writing, addressed to the Chief Procurement Officer and must be received by the Chief Procurement Officer at least 72 hours before the Bid Opening time in the Advertisement in order to receive a written response to the request. Questions received after the designated period may not be considered. The T/LPA will not be bound by any statement or representation concerning the Work unless it is included in the Contract. The Bidder shall only rely on written responses from the Chief Procurement Officer and oral responses, explanations, interpretations, or instructions given before the Bid Opening by the T/LPA, its employees or agents, are not binding. Any response made by the T/LPA will be provided in writing to all Bidders by Addendum. It is the responsibility of each Bidder to obtain a copy of any Addendum issued by the T/LPA by monitoring the T/LPA’s website. Written responses from the Chief Procurement Officer will be posted on the T/LPA’s website. Written responses will be provided, whenever practicable, no later than twenty-four (24) hours prior to Bid Opening.
2. The Bidder shall take no advantage of any error or omission in the Contract. In the event the Bidder discovers an error or omission, the Bidder shall notify the Chief Procurement Officer in writing. The Bidder also agrees that it will make no Claim because of misinterpretation or misunderstanding of the Contract or because of lack of information; and,

3. If a written response by the T/LPA to a request for Contract interpretation is not provided, the Bidder shall Bid the Contract according to the Contract documents.

102.8 PREPARATION OF BID

1. Submit the Bid as provided in the Advertisement;
2. Specify a Bid Item Unit Price for each Bid Item, except when a Bid Item Unit Price is established by the T/LPA;
3. Show the amounts for the respective Bid Item Unit Prices to a maximum of three (3) decimal places. Round additional decimal places in excess of three (3);
4. Exclude the applicable State GRT, local option tax, Indian business tax, TERO tax, and other tax imposed by a tribal government. The T/LPA will pay the applicable tax or increase in the applicable tax effective after the Contract is executed by the T/LPA;

If no Bid Item appears on the Bid Schedule for any Work or Materials required or specified by the Contract, such Work and Materials shall be Incidental to the Contract and the cost of such Work shall be included in any Bid Item(s) related to or associated with such Work. For the convenience of the Contractor, some Contract documents may specify Work which is incidental; identification of such incidental items of Work is not all–inclusive.

102.9 INNOVATIVE INCENTIVE/DISINCENTIVE PROVISIONS

The T/LPA reserves the right and may include innovative Incentive/Disincentive Provisions in the Contract.

102.10 RESERVED

102.11 BID GUARANTY

A Bidder shall submit with the Bid, a Bid Guaranty in the amount of five percent (5%) of the Total Bid Amount. The requirement of the Bid Guaranty is to ensure that the Bidder will promptly execute the Contract in accordance with the Advertisement and in the manner and form required by the Contract Documents and that the Bidder will furnish good and sufficient Contract Bonds and required insurance. The Bid Guaranty shall be in the form in the Required Documents for Bid Submittal. The Bid Guaranty will remain in force up to 30 Days after Bid Opening, or until Award of Contract as it may be extended by the T/LPA, notice of which extension(s) to the surety is hereby waived.

102.12 RESERVED

102.13 RESERVED

102.14 WITHDRAWAL OF BIDS

102.14.1 Bidder

A Bidder may withdraw its Bid before Bid Opening. A Bid containing a mistake discovered before Bid Opening may be modified or withdrawn by a Bidder prior to the time set for Bid Opening by delivering written or telegraphic notice to the location designated in the Invitation for Bids as the place where Bids are to be received.

Once a Bid Opening has commenced at the date, time and place designated in the Advertisement Bids may not be withdrawn and no modifications in Bid prices or other provisions of Bids shall be permitted. After Bid Opening, a Low Bidder alleging a material mistake of fact which makes his Bid nonresponsive may be permitted to withdraw its Bid if:

1. the mistake is clearly evident on the face of the Bid document; or
2. the Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made.

102.14.2 Procurement Officer

Any decision by a procurement officer to permit or deny the withdrawal of a Bid on the basis of a mistake contained therein shall be supported by a determination setting forth the grounds for the decision.

102.15 RESERVED

102.16 RESERVED

SECTION 103: AWARD AND EXECUTION OF CONTRACT

103.1 CONSIDERATION OF BIDS

The Chief Procurement Officer shall review, evaluate Bids and make recommendations for rejection or issuance of the Notice of Preliminary Award. The Chief Procurement Officer will review the Bid Item Unit Pricing to determine if the Bid Item Unit Pricing is responsive, unbalanced either materially or mathematically, or any other abnormalities exist. The T/LPA reserves the right to request justification from the Bidder for any aspect relating to its Bid and the Bidder shall respond to the request. The results of the completed analysis will be available to the public after the T/LPA issues the Notice of Preliminary Award of Contract letter.

If two (2) Contractors submit identical lowest Total Bid Amounts, the T/LPA shall Award by lottery to one of the identical Low Bidders or reject all Bids and resolicit Bids. An Invitation for Bids may be canceled or any or all Bids may be rejected in whole or in part when it is in the best interest of the T/LPA. A determination containing the reasons for cancellation shall be made part of the procurement file. If no Bids are received or if all Bids received are rejected, then new invitations for Bids shall be requested. Any or all Bids may be rejected when it is in the best interest of T/LPA at any time prior to execution of the Contract. A determination containing the reasons for cancellation shall be made part of the procurement file. If all Bids are rejected the T/LPA may issue a new Advertisement.

103.2 NOTICE OF PRELIMINARY AWARD OF CONTRACT

Except as described in Section 103.3, “Bidding Dispute Resolution Procedures,” the T/LPA will issue the Notice of Preliminary Award of the Contract within 30 Days after Bid Opening to the Lowest Responsible Bidder. Bidders may agree to a later Notice of Preliminary Award time if requested to do so by the T/LPA, failure to agree to a later Notice of Preliminary Award time as requested by the T/LPA will be deemed the Bidder’s withdrawal of its Bid. The Notice of Preliminary Award letter, if it is mailed within 30 Days of the Bid Opening, shall bind the Lowest Responsible Bidder to Accept the Contract or to reject the Contract and forfeit the Bid Guaranty it has provided.

103.3 BIDDING DISPUTE RESOLUTION PROCEDURES

103.3.1 Right to Protest

Any bidder who is aggrieved in connection or Award of a contract may protest to the Chief Procurement Officer. The protest shall be submitted in writing within fifteen Calendar Days after knowledge of the facts or occurrences giving rise to the protest. Upon the filing of a timely protest, the Chief Purchasing Officer shall give notice of the protest to the Bidder if Award has been made or, if no Award has been made, to all Bidders who appear to have a substantial and reasonable prospect of receiving an Award if the protest is denied.

103.3.2 Authority to Resolve Protests

The Chief Procurement Officer shall have the authority to resolve protests. the authority to take any action reasonably necessary to resolve a protest of an aggrieved bidder. The Chief Procurement Officer shall have the authority to take any action reasonably necessary to resolve a protest of an aggrieved Bidder. This authority shall be exercised in accordance with regulations promulgated by the T/LPA but shall not include the authority to Award money damages or attorneys' fees.

103.3.3 Protest Determination

The Chief Procurement Officer shall promptly issue a determination relating to the protest. The determination shall:

1. state the reasons for the action taken; and
2. inform the protestant of the right to judicial review of the determination pursuant to Section 156 [13-1-183 NMSA 1978] of the Procurement Code.

A copy of the determination shall immediately be mailed to the protestant and other Bidders involved in the procurement.

103.4 CANCELLATION OF AWARD

The T/LPA may reject all Bids, rescind the Notice of Preliminary Award of Contract, and cancel the Award of any Contract at any time prior to the execution of the Contract by all parties without incurring liability where such cancellation is deemed by the T/LPA to be in the best interests of the T/LPA. No Bidder has a contractual, equitable, implied, or any other right to the Contract until executed by both parties.

103.5 RESERVED

103.6 CONTRACTOR EXECUTED CONTRACT

The T/LPA will provide the Contract to be executed by the Contractor and returned to the T/LPA. The Contractor shall return the signed Contract with Contract Bonds and other documents required by the Notice of Preliminary Award letter within the 15 Days from the date of the letter. The Contract Bonds shall become binding upon Contract execution.

The value of each bond shall equal the Total Original Contract Amount.

All Contract Bonds shall be procured from Sureties with an A.M. Best Company financial strength rating level of A- or better, Class VII or better, unless otherwise approved in writing by the T/LPA. In no event shall the T/LPA approve the use of a Surety with an A.M. Best Company financial strength rating level of B or worse.

103.7 FAILURE TO EXECUTE CONTRACT

Failure by the Lowest Responsible Bidder to return the signed Contract, Contract Bonds and other documents required by the Notice of Preliminary Award letter within 15 Days of receiving the letter shall constitute just cause for rescinding the Notice of Preliminary Award of Contract and the forfeiture of the Bid Guaranty which shall become the property of the T/LPA, not as a penalty but as liquidation of reasonable damages sustained. The Bid Guaranty remains in effect until the T/LPA has fully executed the Contract. The T/LPA may then issue the Notice of Preliminary Award of the Contract to the next Lowest Responsible Bidder or take other actions as the T/LPA may decide.

103.8 EXECUTION OF CONTRACT

If the T/LPA fails to execute the Contract within 30 Days of receiving the signed Contract, Contract Bonds, and other documents required by the Notice of Preliminary Award Letter from the successful Bidder, the Bidder may withdraw its Bid without penalty. No Contract shall be effective until it has been fully executed by the T/LPA and the Contractor. In no event shall the Contractor commence Work until after execution of the Contract by all parties.

SECTION 104: SCOPE OF WORK

104.1 INTENT OF THE CONTRACT

The intent of the Contract is to provide for the construction and completion of the Work to the satisfaction of the T/LPA. The Contractor shall furnish experienced supervision and labor and all Materials, Equipment, tools, transportation and supplies required to complete the Work in accordance with the Plans, Specifications and terms of the Contract.

Unless otherwise specified in the Contract, the Contractor is vested with the discretion and is wholly and solely responsible for selecting and managing the means and methods for performing the Work.

104.1.1 Contract Modifications

No modifications, limitations, waivers or discharge of the Contract or any of its terms shall bind the T/LPA unless made in a written Change Order signed by the Project Manager. A course of performance or course of dealing on this Contract or any other contract between the T/LPA and a Contractor shall not constitute a modification or waiver of the Contract and shall not give rise to any Claim including any cause of action based upon promissory estoppel, estoppel, waiver, or detrimental reliance.

104.2 EXTRA WORK

The T/LPA reserves the right to modify the Contract at any time. Such revisions shall neither invalidate the Contract nor release the Surety. The Contractor agrees to complete the Contract as revised. The Contractor shall perform Work at the T/LPA's written direction defining the scope of the Work and in accordance with the Specifications.

The Contractor shall provide to the Project Manager its proposal associated with the Work before starting the Work. The submission of the proposal shall not be considered Accepted by the T/LPA until the Acceptance of the cost proposal is in writing from the T/LPA. If the proposal is Accepted by the T/LPA, then the T/LPA will issue a Change Order and allow the Contractor three (3) Days to review and sign the Change Order. If, after the expiration of three (3) Days, the Contractor has failed to sign the Change Order the T/LPA may process the Change Order unilaterally.

104.2.1 Significant Changes in the Character of the Work

The Project Manager reserves the right to make, in writing, at any time during the Work, modifications in quantity and alterations to the Work as are necessary to satisfactorily complete the Project. "Significant change" applies only to modifications or alterations that:

1. Materially changes, in kind or nature, the character of the Work including the Critical Path from that which was previously involved or included in the original proposed

construction. When the character of the Work is materially changed in kind or nature then the Project Manager and the Contractor shall agree upon the adjustment prior to the Contractor's performance of the Work. If an agreement is reached, the Project Manager will make an adjustment to the Contract which excludes anticipated profit. If an agreement is not reached, the Project Manager will direct the Contractor to perform the Work. The Project Manager and the Contractor will track the costs in accordance with 109.6, "Force Account."

2. A Major Item of Work, as defined elsewhere in the Contract, has increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. The Project Manager and the Contractor may negotiate adjustments to the Contract when it is discovered that a Major Contract Item of Work, as defined elsewhere in the Contract, has increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original Contract Item quantity. In the case of a decrease below 75 percent, the allowance will apply to the actual amount of work performed. For quantities below 75 percent, before an adjustment is made, the Contractor shall provide documents, including invoices, to the Project Manager justifying the requested adjustment price. If the final quantities are reestablished to be within the thresholds of 75% to 125% of the original item quantity then the original Bid Item Price applies.
3. Affects Work performed under a Subcontract, as solely determined by the Project Manager. The Project Manager will make adjustments if the Contractor demonstrates that the change adversely affects the Subcontractor's Work.

The T/LPA shall not consider customary increases or decreases in quantities necessary to complete the Work changed by the Contractor's schedule of operations, the Contractor's planning of the Work, or unscheduled mobilizations.

104.2.2 Differing Site Conditions

The Contractor shall carefully study and compare the foundation reports and geotechnical reports and Contract documents and shall immediately report to the Project Manager any error, inconsistency, or omission that it discovers. If the Contractor does not understand information in the foundation report and geotechnical report, it shall immediately seek clarification from the Project Manager. The Contractor and the Project Manager shall provide, immediately upon discovery written notice of the following conditions encountered on the Project during the progress of the Work:

1. Present but not visible physical conditions differing materially from those shown in the Contract; or,
2. Unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work.

The Project Manager will decide, within a, two (2) Working Days, after written notification, whether the conditions materially differ and cause an increase or decrease in the cost or time required to perform the Work.

The Project Manager will notify the Contractor of this decision and the Contractor shall not proceed with Extra Work until the Project Manager provides direction.

The Project Manager will adjust the Contract for differing site conditions in accordance with Section 109.5, “Payment for Extra Work,” and will include the costs of Delays but exclude anticipated profit in accordance with Section 109.11, “Compensation for Claims.” Conditioned upon obtaining District Engineer approval with concurrence from the CLE, the T/LPA may grant time extensions only to the extent that the activities on the Critical Path of the Baseline Schedule in effect at the time of the Delay are impacted. No Contract adjustment which results in a benefit to the Contractor will be allowed if a differing site condition could have been discovered or anticipated by the Contractor through the exercise of Pre-Bid Due Diligence.

104.2.3 T/LPA Ordered Work

The T/LPA shall pay for T/LPA ordered Work in accordance with Section109.5, “Payment for Extra Work.”

Conditioned upon obtaining District Engineer prior approval and concurrence from the CLE, the T/LPA may grant time extensions only to the extent that the activities on the Critical Path of the Baseline Schedule in effect at the time of the Delay are impacted.

104.3 RESERVED

104.4 RESERVED

104.5 MAINTENANCE OF TRAFFIC

The Contractor shall furnish traffic control devices, take protective and safety measures, and complete the Work. If the Contractor fails to do so, the Project Manager will notify the Contractor in writing of the deficiency and the Contractor shall take corrective action within the time frame specified by the Project Manager. Failure by the Contractor to take the corrective action as directed by the Project Manager shall result in the T/LPA assessing to the Contractor the incurred costs for the corrections plus an additional 10% for administrative costs.

The Contractor shall not endanger the traveling public when moving Equipment on or across the ROW and Roadway. The Contractor’s Equipment shall enter and leave the ROW and Roadway in the direction of the Traveled Way, except with the written approval of the Project Manager.

The Project Manager may direct the Contractor to maintain the pavement surface. The T/LPA will pay for this Work in accordance with Section 109.5, “Payment for Extra Work.”

The T/LPA is responsible for snow removal on sections of Roadway open to the traveling public unless some other agency has responsibility for its removal. The Project Manager will coordinate snow removal with the Contractor and the maintenance patrol.

The Contractor shall furnish warning devices, take protective and safety measures, and complete Shoulder Work, drainage Structures, or other features of the Work. If the Contractor fails to do so, the Project Manager will notify the Contractor in writing of the deficiency and the Contractor shall take corrective action within the time frame specified by the Project Manager.

The Contractor shall provide reasonable vehicular and pedestrian ingress and egress to adjoining properties during the duration of the Contract. The Contractor shall advise and schedule access modifications with local business owners and residences and the Project Manager at least 24 hours in advance.

The Contractor shall not open partially completed sections of the Traveled Way unless directed or approved by the Project Manager. If the Traveled Way is opened at the Contractor’s request, the Contractor remains liable for costs associated with the opening until Final Acceptance of the Project. The Project Manager will provide written instructions approving any sections which are to be opened. Such an opening shall not constitute a full or partial Acceptance of the Work or a waiver of any Contract provisions.

104.6 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK

The Contractor may use Materials found in the excavation for completing Pay Items other than the Work in Standard Specification Section 203. Payment will be made for both the excavation of such Materials at the corresponding Contract Unit Price and for the Pay Item for which the excavated Material is used.

If the excavated Material would have been used to construct Embankments or Bridge approaches or for other purposes, any of which would have been required to complete the Contract, the Contractor shall replace the excavated Material with Acceptable Material at no additional cost to the T/LPA. The T/LPA will not charge the Contractor for the use of the excavated Material. The Contractor shall obtain written authorization from the Project Manager before excavating Material that is within the Right of Way but outside the grading limits, as shown by the slope and grade lines. Prior to granting approval, the Project Manager will verify that the requirements of Section 107, “Legal Relations, Environmental Requirements, and Responsibility to the Public,” have been met. If not previously cleared environmentally, meeting these requirements will be the responsibility of the Contractor.

Unless otherwise provided, the Contractor may temporarily use the Material from existing Structures in the erection of a new Structure but shall not, without the approval of the Project Manager, cut or otherwise damage such Materials.

104.7 FINAL CLEANUP

Pits located on State or federal land are governed by the appropriate requirements of their agency. The requirements of this Section do not apply to a commercial source.

Before Final Acceptance all areas occupied by the Contractor or in connection with the Work shall be cleaned of all Deleterious Material, rubbish, excess Materials, temporary Structures and Equipment, and all parts of the Work shall be left in a condition Acceptable to the Project Manager or otherwise required by the Contract. To avoid the requirement of removal of Equipment from private property before Final Acceptance, the Contractor shall make appropriate arrangements with private property owners and provide documentation of the arrangement to the Project Manager.

The Contractor shall not allow Borrow Pits and Surfacing Pits to change the general pattern of existing drainage. Unless Borrow Pits or Surfacing Pits are suitable to develop as ponds or lakes and the property owner has notified the T/LPA in writing that such development is planned, the Contractor shall where practicable leave all pits well drained.

The Contractor shall, when excavation is complete, contour grade pits, except quarry pits, to blend with the natural topography of the surrounding area or in accordance with the Contract or agreements with the property owners.

104.8 VALUE ENGINEERING COST PROPOSAL (VECP)

The T/LPA under no circumstances will reimburse the Contractor for the costs of developing the VECP that is rejected or is not Accepted by the T/LPA. The Contractor shall submit its VECP on the T/LPA provided form only. Exempted from Value Engineering Cost Proposals are mix designs and traffic control. Any decision about whether to Accept a VECP shall be in the sole discretion of the T/LPA. A VECP shall not be considered Accepted until the T/LPA approves a Change Order implementing the VECP. VECPs are reviewed on a case by case basis and apply only to the ongoing Contracts referenced in the VECP proposal and become the property of the T/LPA upon approval of the Change Order. VECPs shall contain no restrictions imposed by the Contractor on their use or disclosure. The T/LPA has the right to use, duplicate and disclose in whole or in part any data necessary for the utilization of the VECP. The T/LPA retains the right to utilize any Accepted proposal or part thereof on other Projects without obligation or compensation to the Contractor.

The Contractor’s share of the VECP is fifty percent (50%) of the net savings. In no event shall the Contractor be entitled to an extension of Contract Time for the T/LPA’s consideration a VECP, the refusal to Accept or approve such a proposal, or any other matter connected with a VECP.

The T/LPA will rely exclusively upon the accuracy of the engineering data upon which the VECP is based and will not be required to perform additional investigations, crosschecks, or site examinations. The T/LPA's Acceptance or adoption of a VECP shall not be construed to alleviate or reduce the Contractor's full and absolute liability if the implementation of the proposal fails to satisfactorily perform.

SECTION 105: CONTROL OF WORK

105.1 RESPONSIBILITY AND AUTHORITY OF THE T/LPA

105.1.1 T/LPA Authority

The T/LPA has the authority to:

1. Administer the Contract;
2. Alter the Contract;
3. Enforce and terminate the Contract as expressly provided in other Sections of the Standard Specifications;
4. Wholly or Partially Suspend the Work for cause; and
5. Take actions as determined to be in the public's best interest.

If the Work is suspended by the Project Manager in writing for an unreasonable time (not originally anticipated, customary, or inherent to the construction industry), the Contractor may submit to the Project Manager a Notice of Intent to Claim in accordance with Section 105.19, "Notice of Intent to Claim," which must be accompanied by a proposed revised schedule pursuant to Section 108.3, "Schedule."

105.1.2 Contractor Convenience

The Contractor shall be wholly responsible and liable for any costs or time associated with any requests made for the Contractor's convenience and approved by the T/LPA.

105.2 PLANS, WORKING DRAWINGS

The Plans may be supplemented by Working Drawings as are necessary for the Work. The Contractor shall have the sole responsibility for verifying pertinent dimensions in the field before submitting such Working Drawings to the Project Manager. Working Drawings shall be submitted by the Contractor and Accepted by the Project Manager before beginning Work covered by the drawings. The Project Manager will review the Working Drawings although the Project Manager's review does not relieve the Contractor of the responsibility for the satisfactory completion of the Work or compliance with the Contract. The Contractor shall not alter or amend such drawings without the prior written approval of the Project Manager. The furnishing of all Working Drawings is Incidental.

The Contractor's Baseline Schedule of Work shall show the submittal of any Working Drawing as a milestone thirty (30) Days before the commencement of Work covered by the drawings. Unless otherwise indicated in the Contract, or approved by the Project Manager in writing, the Project Manager will have no longer than thirty (30) Days for Acceptance of the Working Drawings. If the Working Drawings are not Acceptable, the Working Drawings shall be resubmitted by the Contractor and the timeframe for Acceptance starts over. All time required for review of Working

Drawings and other Contractor submittals shall be Incidental and shall not be the basis for any Claim for Contract Time extension or additional compensation.

105.2.1 Submittals

Anything that requires approval is considered a submittal by the T/LPA. Any submittal required, other than the Critical Path Method or Bar Graph Schedules, shall be submitted to the T/LPA thirty (30) Days before the Work related to the submittal is performed. The Project Manager will have no longer than thirty (30) Days for Acceptance of the submittal, unless otherwise specified in the Contract.

105.3 COMPLIANCE WITH PLANS AND SPECIFICATIONS

The Contractor shall perform the Work and provide the Materials in substantial compliance with the lines, grades, cross sections, dimensions, and Material requirements as specified by the Contract. The T/LPA's failure to discover or reject Work or Materials not in substantial compliance with the Contract during the Work shall not be considered an Acceptance of the Work or Materials, or a waiver of defects. The T/LPA’s failure to properly perform inspections or tests shall not relieve the Contractor from its obligation to perform the Work and provide Materials in substantial compliance with the Contract and shall not be considered the T/LPA’s Acceptance of the Work or Materials.

If the Project Manager determines that Work or Materials are unacceptable, the Contractor shall remove, replace and correct the Work or Materials at no additional cost to the T/LPA. The Project Manager’s determination that the Work or Materials are unacceptable shall not form the basis of a Claim for additional Contract Time or additional compensation.

If Work does not comply or substantially comply with the Contract, the T/LPA may determine the Work is nonetheless Acceptable. Such a determination is subject to the approval of the District Coordinator. If Accepted the Project Manager will, by Change Order, provide an adjustment for Work or Materials.

105.4 COORDINATION OF CONTRACT DOCUMENTS

In case of a discrepancy, the Contract documents will govern in the following order of importance:

1. Addenda;
2. Required Documents for Bid Submittal;
3. Notices to Contractors;
4. Advertisement;
5. Special Provisions;
6. Plans;
7. Supplemental Specifications;
8. Standard Specifications; and,

9. Standard Drawings.

Dimensions given on the Plans or that can be calculated govern over scaled dimensions.

If a Contract discrepancy is discovered after the Award of the Project, the Contractor shall, upon discovery, promptly notify in writing the Project Manager. The Contractor shall take no advantage of any discrepancy or errors or omissions in the Contract. The Project Manager will resolve the discrepancy in writing before the Contractor proceeds further with performance of the affected Work.

105.5 CONTRACTOR RESPONSIBILITIES

The Contractor shall monitor the Work at all times, select and manage the means and methods for performing the Work.

105.5.1 Duties of Superintendent

The Contractor shall have on the Project at all times during the course of the Work, a competent and qualified Superintendent who:

1. Reads and understands the Contract documents; and
2. Possesses substantial experience in the type of Work being performed.

The Contractor and its Superintendent shall communicate with the Project Manager as the T/LPA's contact for all matters relating to the Project and promptly submit all documentation or notice required by the Contract to the Project Manager.

105.6 COOPERATION WITH UTILITIES

The Contractor shall comply with the Notice to Contractors regarding Cooperation with Utilities for relocations, adjustments, and installations of utilities. The Contractor's responsibility is to adequately coordinate, notify, or comply with the Contract and failure to do so shall not form the basis for an extension of Contract Time or additional compensation.

The Contractor shall copy the Project Manager on all communications with utilities. For telephonic communications a summary of the communication shall be provided to the Project Manager monthly.

The Contractor shall be responsible for complying with the New Mexico Excavation Law, NMSA 1978, Section 62-14-1 through -10 which provides the procedures and requirements related to the performance of Project excavation Work.

Failure by the utility owner to relocate, adjust, or install the utility in accordance with the Contract may result in the Project Manager issuing written direction to the Contractor directing that the Contractor shall relocate, adjust, or install the utility per Section 104.2, "Extra Work."

The Contractor shall terminate operations in the immediate area of a utility conflict not identified in the Contract and encountered during the Work. The Contractor shall immediately provide written notice to the Project Manager of the conflict. The Contractor shall continue Work in other areas. The Project Manager shall provide written notification to the Contractor when Work may commence in the area of terminated operations. The Contractor shall make requests for additional Contract Time or compensation per Section 104.2.2, “Differing Site Condition.” Where utility conflicts not identified in the Contract are present, the Contractor shall provide the Project Manager, on a weekly basis, evidence of adequate coordination and cooperation with utilities. Neither additional Contract Time nor compensation will be provided where the Contractor fails to provide the Project Manager, on a weekly basis, evidence including a telephonic log of communications concerning the Contractor’s continued cooperation and coordination activities with utilities.

105.7 COOPERATION BETWEEN CONTRACTORS

The T/LPA reserves the right at any time to Contract for and have performed other Work on or near the Project.

When separate Contracts are let within the limits of any one Project, each Contractor shall conduct the Work without interfering or hindering the progress or completion of the Work being performed by other Contractors. Contractors working on the same Project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with the Contract and shall protect and hold harmless the T/LPA for all damages or Claims as per Section 107.19, “Responsibility for Third Party Claims and Duty to Defend.”

If the Contractor and one (1) or more other Contractors are unable to agree upon the sequence of Work or other matters, the Contractor(s) shall request that the Project Manager provide a written decision on the issue. The Project Manager will allow a reasonable time for all parties to respond and, after reviewing the information received, will issue a decision binding on all parties within seven (7) Days of receiving such information.

105.8 AUTHORITY AND DUTIES OF THE PROJECT MANAGER

105.8.1 Project Manager Authority

The Project Manager is a designee of the T/LPA and has the following responsibilities:

1. Interpretation and administration of the Contract;
2. Immediate charge of the details of the Project;
3. Authority to reject Work and Material;

4. Authority to wholly or Partially Suspend the Work for reasons beyond the control of the Contractor or not connected to the construction of the Project when the Project Manager deems such a suspension to be in the best interests of the public and the T/LPA; and,
5. Authority to concur with the Contractor's request to Partially Suspend or wholly suspend the Work.

At no cost to the T/LPA, the Project Manager may also wholly or Partially Suspend the Work for cause, including but not limited to, the Contractor's failure to:

a. Correct unsafe conditions;
b. Comply with any term or condition of the Contract;
c. Observe and comply with any Federal or State law or regulation;
d. Carry out directions of the Project Manager;
e. Manage its personnel and Subcontractor and its personnel; or,
f. Perform satisfactory Work.

105.8.2 Contractor Inquiries to Project Manager

The Contractor shall submit all correspondence to the Project Manager. The Contractor shall submit in writing a request for information for any Project issues, including but not limited to discrepancies in the Contract, to the Project Manager who will resolve the issues.

The determination of the Project Manager will be in writing and delivered to the Contractor's Superintendent as soon as reasonably practicable.

105.9 DUTIES OF THE INSPECTOR

105.9.1 Inspector Authority

The T/LPA authorizes its Inspectors to:

1. Inspect the Work;
2. Inspect the preparation, fabrication or manufacture of Materials; and,
3. Notify the Contractor of non-conforming Work, reject non-conforming Materials, and suspend portions of the Work for safety reasons only.

The Contractor shall refer questions at issue to the Project Manager for a decision.

105.9.2 Inspector Authority Limitations

The T/LPA does not authorize its Inspectors to:

1. Alter or waive any provision of the Contract;
2. Issue instructions contrary to the Contract; or
3. Provide direction, superintendence or guidance to the Contractor, Subcontractors or Suppliers;

Any action or inaction of the Inspector does not waive the T/LPA's right to pursue any and all legal remedies for defective Work or Work performed by the Contractor in an unworkmanlike manner.

105.10 INSPECTION OF WORK

The Contractor shall provide the Project Manager with 48 hour notice for inspection of the Work. Failure by the Contractor to provide the proper notice may result in the T/LPA directing the Work performed without inspection to be removed at no cost to the T/LPA.

The Contractor shall provide the T/LPA or its representative access to the Work and provide all information, Equipment, and assistance requested or required to make a complete and detailed inspection of the Work. All Materials and each part or detail of the Work shall be subject to inspection by the T/LPA.

The Project Manager may direct the Contractor to remove or uncover portions of the finished Work, at any time before Final Acceptance of the Work. The Contractor shall restore the portions of the Work to the standard required by the Contract after the Project Manager's examination. If the examined Work is Acceptable, the T/LPA will pay for the removal and restoration as Extra Work under Section 104, "Scope of Work," and Section 109.5, "Payment for Extra Work." However, if the examined Work is unacceptable, the Contractor shall remove and restore the Work at no additional cost to the T/LPA.

Action or inaction by a T/LPA Inspector shall not relieve the Contractor from any responsibility under the Contract for Acceptable Work in conformity with the Contract. The failure to properly perform inspections, tests or approvals by the T/LPA shall not relieve the Contractor from its obligation to perform the Work in strict conformance with the Contract.

105.11 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK

Work that does not conform to the requirements of the Contract shall be unacceptable, unless it is determined by the Project Manager to be Acceptable under the provisions of Section 105.3, "Compliance with Plans and Specifications."

Should any defective Work or Material be discovered, before Final Acceptance, the T/LPA will issue a Non-Conformance in accordance with Section 109.8.2, "Non-Conformance."

Prior to T/LPA Acceptance, the Contractor shall replace or repair Materials damaged in transit or during handling at no additional cost to the T/LPA.

The Contractor shall remove unacceptable Work resulting from causes existing before the Final Acceptance of the Work and replace in an Acceptable manner at no additional cost to the T/LPA. The Project Manager will set the time limit for the replacement Work.

The T/LPA shall not pay for the following under the provisions of the Contract:

1. Work performed contrary to the Project Manager's direction or as provided in the Contract;
2. Work performed beyond the lines and grades on the Plans; or,
3. Work performed without authority.

Upon failure of the Contractor to comply with the removal and replacement of unacceptable or unauthorized Work within the time specified by the Project Manager, the Project Manager shall have authority to cause unacceptable Work to be removed and replaced. The Project Manager will then deduct from the monies due or that become due to the Contractor the cost of removing or replacing the unacceptable or unauthorized Work.

105.12 LOAD RESTRICTIONS

The Contractor shall observe legal load restrictions when hauling Equipment or Material on public Roads outside of the Project or on Roadways within the Project. The Project Manager may approve exceptions, in writing, provided the Contractor has obtained the proper oversize and overweight permits. The Contractor is liable for damage that may result from moving Equipment, even with the issuance of a special permit.

The Contractor shall not use Equipment or haul loads that will cause damage to Structures, Roadway, or any other construction, regardless of legal load allowances.

If the Project Manager determines that anticipated hauling operations may cause damage to existing Roadways or Structures, the Project Manager will issue a written notice to the Contractor. Within seventy two (72) hours of the notice, the Project Manager will elect one (1) or more of the following solutions:

1. Change the haul route; or
2. Reduce the allowable load limit.

If the Project Manager determines that hauling operations are causing damage to existing Roadways or Structures, the Project Manager will issue a written notice to stop operations causing the damage. Within seventy two (72) hours of the notice, the Project Manager will issue written direction to the Contractor to repair the damage or the Project Manager will elect one(1) or more of the following solutions:

1. Change the haul route;
2. Reduce the allowable load limit;
3. Allow the operations to continue with the requirement that the Contractor repair all damaged areas at ½ Unit Bid prices. In the absence of a Unit Bid price, the current published average unit Bid prices shall be used.

105.12.1 Corrective Actions and Methods of Payment

105.12.1.1 Change in Haul Route

If the Project Manager changes the haul route, the T/LPA will modify the Contractor's payment per the following equation:

$$P = R \times t \times (d_1 - d_0) \qquad (1)$$

Where,

P is the payment modification (in dollars)

R is the rate (in dollars per ton mile determined in accordance with Section 109, "Measurement and Payment.")

t is the weight of Material hauled from the new stockpile area (in tons)

d_0 is the original haul distance measured from the Roadway access point to the original stockpile area

d_1 is the new haul distance measured from the Roadway access point to the new stockpile area

105.12.1.2 Change in Allowable Load Limit

If the Project Manager reduces the allowable load limit, the T/LPA will pay the Contractor in accordance with the following equation:

$$P = \frac{QF \times R \times d \times (LA - LR)}{LA} \qquad (2)$$

Where,

P is the additional payment (in dollars)

R is the rate (in dollars per ton mile determined in accordance with Section 109, "Measurement and Payment.")

QF is the total quantity of Material hauled at the reduced load limit (in tons)

LA is the allowable load limit (in tons)

LR is the reduced load limit (in tons)

d is the haul distance (in miles)

If the Project Manager allows operations to continue or because of damage to an existing Roadways or Structures, the T/LPA will pay the Contractor for the Material used to make the repairs at the ½ of the Bid Item Unit Price, or in accordance with Section 109, "Measurement and Payment." If an item is not part of the Contract, the T/LPA will negotiate a new unit price. If a Structure or existing Roadway must be repaired, the T/LPA may pay the Contractor for hauling repair Materials using a rate requested and justified by the Contractor and approved by the Project Manager.

105.13 RESERVED

105.14 RESERVED

105.15 MAINTENANCE DURING CONSTRUCTION

The Contractor shall maintain the Work during construction and until the T/LPA Accepts the Work, except as otherwise provided in Section 104.5, “Maintenance of Traffic,” and Section 105.18, “Acceptance.” This maintenance shall consist of continuous, daily Work with adequate Equipment and forces so that the Roadway and Structures are kept in satisfactory condition. The Contractor shall be responsible for maintaining the Project free and clear of Deleterious Materials including debris, weather related remnants, snow, loose Materials and trash. The T/LPA will be responsible for snow removal operations on travel lanes open and utilized by the public unless some other entity is responsible for its removal.

The Contractor shall maintain the previous course and Subgrade when the Plans require the Contractor to place traffic on the unfinished Roadway.

All maintenance Work during construction and before the Project is Accepted shall be Incidental. The T/LPA shall not pay the Contractor an additional amount for this Work except in accordance with Section 104.5, “Maintenance of Traffic,” and Section 105.18, “Acceptance.”

105.16 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE

If the Contractor fails to maintain the Project in accordance with Section 105.15, “Maintenance During Construction,” the Project Manager shall notify the Contractor in writing of the failure. If the Contractor does not take corrective action in timeframe specified by the Project Manager, the Project Manager may issue a written notice per 109.8.2 “Non-Conformance” or notice of the Contractor’s apparent default per Section 108.9, “Default of Contract.”

If the Contractor does not begin maintenance after notice from the Project Manager, the Project Manager may begin maintenance of the Project. For corrective actions implemented by the Project Manger the Contractor shall reimburse the T/LPA for T/LPA incurred costs of such maintenance plus an additional ten percent (10%) for administrative costs.

105.17 RESERVED

105.18 ACCEPTANCE

105.18.1 Partial Acceptance

The Contractor may request in writing that the Project Manager inspect a portion of the Project (e.g., a Structure, a section of Road, etc.) at any time during the Work. If the Project Manager finds that portion to be in accordance with the Contract, subject to the concurrence of the District Coordinator, the Project Manager may Accept that portion as complete, and, without waiving the provisions in Section 105.3, “Compliance with Plans and Specifications,” Section 107.26, “No Waiver of Legal Rights,” and Section 109.10, “Project Closure,” the Contractor may be relieved of further responsibility for that portion unless the T/LPA discovers latent defects before Final Acceptance of the Work. Such partial Acceptance does not void or alter the Contract.

The T/LPA will Accept permanent traffic safety and control devices installed in accordance with the Contract (with all ancillary components) and being used by the public upon installation but before completion of the remaining Work.

Permanently installed items Accepted on this basis are limited to the following:

1. Guardrail;
2. Impact attenuators;
3. Traffic Signals;
4. Signs;
5. Lighting;
6. Raised pavement markers;
7. CWB;
8. Concrete Bridge parapet;
9. Bridge railing;
10. Post and cable barrier ;
11. Guardrail anchorages;
12. Permanent pavement markings; and
13. Fence.

All required performance tests and guarantees shall remain applicable.

The Contractor shall repair or replace any damage, theft, or vandalism to these items after Acceptance in accordance with Section 104.2, “Extra Work.” The Contractor shall repair or replace items damaged due to the Contractor’s negligence or as a result of the Contractor’s failure to protect the Work per Section 107.20, “Contractor’s Responsibility to Protect the Work,” at no additional cost to the T/LPA.

The Contractor shall erect these items in a logical construction sequence. The T/LPA shall not Accept prematurely constructed items until they may be used for their intended purposes.

105.18.2 Final Acceptance

The T/LPA will make the Final Acceptance in accordance with 109.10.8 “Physical Completion, Final Payment and Final Acceptance.”

105.19 NOTICE OF INTENT TO CLAIM

Notice of intent to Claim shall be given in order that the T/LPA can assess the situation, make an initial determination as to the causes of the intent to Claim, institute appropriate changes or procedures to resolve the matter, document issues related to the intent to Claim, track costs and possible Delay, and facilitate resolution of the intent to Claim. The failure of the Contractor to provide a timely and complete Notice of Intent to Claim form, a contemporaneous statement of estimated damages or Delay, and to comply with the other requirements of this Section shall constitute a waiver or abandonment of the Claim.

The Contractor's submission of the Notice of Intent to Claim form and the Project Manager's actions related to the Notice of Intent to Claim shall not be construed to prove or validate the Claim or be construed as an admission of liability.

1. Unless otherwise specified by the Contract, the Contractor shall only make Claims in accordance with the exclusive administrative remedy and procedures set forth in this Section and Section 105.20, "Administrative Remedy."
2. The Contractor shall submit to the Project Manager its notice of intent to Claim on the T/LPA's current Notice of Intent to Claim form. The Notice of Intent to Claim form and documents or information submitted with the same shall constitute the Contractors intent to make a Claim. The notice of intent to Claim shall provide a contemporaneous statement of estimated damages or Delay before beginning the Work on which the Claim is based, but, in no event shall notice be given later than seven (7) Days of the Contractor discovering the condition or issue giving rise to the Claim, or within seven (7) Days of receipt of a notice of a differing site condition from the Project Manager. A notice of intent to Claim shall include, when relevant to the intended Claim (e.g., when the Contractor intends to seek a Contract adjustment for time, Delay damages, or reduction in Liquidated Damages, etc.), a revised schedule that identifies the impacts pursuant to Section 108.3.2, "Schedule Format;" failure to include a revised schedule shall render the notice of intent to Claim incomplete. This Section and the deadlines stated herein do not modify any of the deadlines for submitting revised schedules as provided in Section 108.3, "Schedule."
3. If the Contractor submits a timely Notice of Intent to Claim Form the Project Manager may, without admitting liability for the Claim, direct the Contractor to keep a complete and accurate account, in detail, of the cost of doing the Work on a Force Account basis per Section 109.6, "Force Account." Failure to maintain records on a Force Account basis when so directed by the Project Manager shall waive any associated Claim by the Contractor.
4. The Contractor shall provide the Project Manager proper facilities to keep account of the actual cost associated with the notice of intent to Claim; the Contractor waives the right to assert a Claim if the Project Manager is not afforded proper facilities to keep account of actual cost. The Project Manager may, in the Project Manager's discretion, in writing, waive this requirement to keep account of actual cost upon a showing of adequate justification by the Contractor.
5. If the Project Manager finds that the notice of intent to Claim is justified the Project Manager will process a Supplemental Agreement to resolve the notice of intent to Claim.
6. If the notice of intent to Claim is unresolved then the Contractor shall comply with Section 105.20, "Administrative Remedy."

105.20 ADMINISTRATIVE REMEDY

This Section governs the administrative remedy procedure to resolve all Claims, unless otherwise specified in the Contract. The administrative remedy procedure is the sole Contractual

procedure to resolve Claims. No Claim shall be accorded any level of review unless the procedure below is followed sequentially. The sequential steps of the process are as follows:

Step I. Notice of Intent to Claim;
Step II. Submittal of the Claim to the Project Manager;
Step III. T/LPA's review, which may include referral to Claims Board for an informal hearing, and T/LPA's decision;
Step IV. Service of Request for Arbitration or Service of Summons and Complaint in State District Court.

The Contractor shall not proceed to the subsequent step without a written determination from the preceding step.

The complete terms of a resolved Claim, regardless of the level of the administrative remedy, shall be documented and memorialized via a Change Order executed by the Contractor and the T/LPA. The executed Change Order shall represent a final agreement to the total additional compensation and time due for any and all Work and items pertaining to the Work associated with the Change Order. Unless otherwise provided in the terms of the Change Order, the executed Change Order shall operate as an accord and satisfaction of the Claim and shall operate as a bar to any further Claim by the Contractor. Each party shall bear its own attorneys' fees, costs, and expert fees.

Step I. Notice of Intent to Claim, See Section 105.19, "Notice of Intent to Claim."

The T/LPA shall dismiss a Contractor's Claim for failure to comply with the time limitations, requirements and procedures set forth in this Section and Section 105.19, "Notice of Intent to Claim."

105.20.1 Submittal of the Claim to the Project Manager

Step II. Submittal of the Claim to the Project Manager

The Contractor shall submit its Claim on the T/LPA's Claim Form. The Project Manager retains the right to request additional information and documents from the Contractor to support the Claim. The Contractor shall provide the requested additional information and documents.

1. A Claim shall be rejected and it shall constitute a waiver or abandonment of the Claim and a failure to exhaust its administrative remedy for the Contractor's failure to comply with the following conditions:
   a. The Claim shall be in writing;
   b. The Claim shall be submitted on the T/LPA's Claim Form;
   c. The Claim shall be submitted within 30 Days of the date that the Work associated with the Claim has been completed;
   d. The Claim shall be submitted only once;
   e. The Claim shall include all required supporting documentation and information; and

f. A Contractor's, Subcontractor's or Supplier pass-through Claim shall be certified by the Contractor as the Contractor's Claim on the T/LPA's current approved forms.

2. The Contractor has the burden of fully justifying and documenting the Claim and shall provide to the Project Manager the following supporting documentation and information in support of the Claim. The following supporting documentation shall also be updated from those documents submitted with the Notice of Intent to Claim:
   a. Description of the issue upon which the Claim is based;
   b. Location where the issue arose;
   c. The dates impacted including the time and date the issue arose;
   d. Clear explanation of why the issue requires additional compensation or time or a change to the Contract, including references to the relevant portions of the Contract;
   e. Copies of all written communications including correspondence and emails related to the issue;
   f. A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows: documented additional job site labor expenses; documented additional cost of Materials and supplies; a list of additional Equipment costs claimed, including each piece of Equipment and the Blue Book rental rate claimed for each; any other additional direct costs or damages and the documents in support thereof;
   g. Where a Claim seeks additional time, time and compensation for Delay, adjustment of Contract Time, or the reduction or elimination of liquidated damages, previously submitted Baseline Schedule and revised schedules that comply with the requirements of Section 108.3, "Schedule;"
   h. Invoices identifying the labor, Materials, and Equipment used or proposed to be used;
   i. Project Cost Reports. If the amount claimed by the Contractor exceeds $100,000.00, Project cost reports for the time periods relevant to the Contract and the performance of the Work;
   j. Bid Documents. If the amount claimed by the Contractor exceeds $100,000.00, or if required by the Contract the Contractor shall make the Contractor's documents available for inspection by the Project Manager at the Contractor's project office. This includes information and calculations used to prepare and determine its Bid for the Contract prior to submission of the Bid. The required Bid preparation documents, as maintained by the Contractor, to be produced shall include: clear itemization of the costs for each Pay Item broken down into components sufficient to allow a detailed cost estimate; the costs allocated to each component broken down into the Contractor's usual estimate categories such as direct labor, Equipment, Materials, and Subcontractor cost; indirect costs, including the indirect cost allocations made to each Bid Item; quantity takeoffs; the construction and progress schedule and any conceptual schedules upon which the Bid was based; rates of production and progress; marked up Plans, sheets and Working Drawings ; calculations, copies and quotes from Subcontractors and Suppliers; memoranda, narratives, and all other information used by the Contractor to arrive at all of the prices contained in the Bid. The Project Manager may waive this requirement;
   k. Total amount of the Claim in terms of time and compensation; and

l. Certification of Claim. The Contractor shall submit a Certification of Claim form with the Claim.

105.20.2 T/LPA Review

Step III: T/LPA Review and Decision

The T/LPA has 30 Days from the date the Claim is received by the Project Manager, or additional time if agreed upon by both parties in writing, to review and render a decision. If the T/LPA does not make a written decision within the 30 Days, or the agreed upon additional time, the Claim is deemed denied by the T/LPA. The parties may engage in informal mediation to resolve the Claim prior to the expiration of the time in which the T/LPA may render a decision.

Once a Claim is submitted to the Project Manager, nothing in this Section shall be construed as permitting the Contractor to revive, modify, supplement, enlarge, or amend the Claim or the basis of entitlement other than providing additional documents and information in support of the Claim. All further proceedings shall be limited solely to the bases of entitlement and the amount of any compensation or time stated for any and all issues Claimed in the Contractor's written Claim submitted.

Additional Information. The T/LPA retains the right to request additional information from the Contractor to support the Claim, regardless of the Project Manager's previous waiver.

105.20.3 Arbitration

Step IV: Service of Request for Arbitration or Service of Summons and Complaint in State District Court

1. The Contractor and T/LPA may agree to arbitrate the Claim instead of proceeding to litigation in State District Court. Arbitration may only be had at the mutual agreement of the Contractor and the T/LPA. Arbitration shall be conducted in accordance with the New Mexico Uniform Arbitration Act (NMSA 1978, § 44-7A-1, et seq.) and this Section.
2. Service of the request to arbitrate the Claim by the Contractor shall only be made in the request for reconsideration. The T/LPA will issue a decision denying or agreeing to the request for arbitration in writing within ten (10) Days of the receipt of the request to arbitrate. If the T/LPA does not respond to the request to arbitrate then the request is deemed denied.
3. By the parties agreeing to arbitration, the Contractor waives the right to redress through litigation filed in State District Court. The Contractor's proceeding with arbitration shall operate as a waiver by the Contractor of recovery under any written decision issued by the T/LPA.
4. If the Contractor and T/LPA agree to arbitrate the Claim the arbitration panel shall consist of three (3) members.

5. Within 15 Days of the agreement to arbitrate the Claim, the Contractor shall submit the name of a panelist. The Contractor's panelist shall:
   a. Not be an employee of the Contractor;
   b. Have 15 years' experience in Highway construction management, methods, techniques, or law; or have an active professional license with the State of New Mexico as an Engineer, Surveyor or Attorney with ten (10) years' experience in Highway construction management, methods, techniques, or law;
   c. Be either a resident of the State of New Mexico or identify New Mexico as the panelist's principal place of business; and,
   d. Agree to serve on the panel;
6. Within 15 Days of receiving notice of the Contractor's panelist, the T/LPA shall submit the name of a panelist. The T/LPA's panelist shall:
   a. Not be an employee of the T/LPA, but may include individuals contracted to provide services to the T/LPA;
   b. Have 15 years' experience in Highway construction management, methods, techniques, or law; or have an active professional license with the State of New Mexico as an Engineer, Surveyor or Attorney with ten (10) years' experience in Highway construction management, methods, techniques, or law;
   c. Be either a resident of the State of New Mexico or identify New Mexico as the panelist's principal place of business; and,
   d. Agree to serve on the panel;
7. Within 30 Days after the T/LPA's panel appointment, the two (2) panelists will choose a third panelist. The third panelist shall:
   a. Be a professional arbitrator who is a member or diplomat of a nationally recognized professional arbitration organization, such as the National Academy of Arbitrators or the American Arbitration Association; or is a retired federal or New Mexico District or appellate judge; or be a former employee of FHWA;
   b. Not be an employee or a contractor of either the T/LPA or the Contractor; and
   c. Agree to serve on the panel;
8. If the two (2) panelists are unable to agree, a District judge from the Judicial District where the Project is located shall choose the third panelist from a list of four (4) prospective panelists who meet the requirements of the preceding paragraph, two (2) each provided by the T/LPA and the Contractor. Application to the court for this appointment shall be made by either or both parties within 15 Days of the impasse; the parties may agree in writing to extend this deadline.
9. The panel shall hold the arbitration hearing in the County where the Project is located, unless otherwise approved by the T/LPA, no later than 90 Days after the panel is selected. If the panel fails to meet this deadline or if the parties agree to extend the deadline, the panel retains jurisdiction to hear and resolve the issues in dispute.
10. Each party will pay the expenses and fees of its chosen panelist and attorney. Both parties will share equally the expenses and fees of the third panelist. If both parties agree, they will share court reporter costs. If not, the party requesting the transcription will pay the full cost.

11. The proceedings and the decision of the panel will be in accordance with the New Mexico Uniform Arbitration Act, NMSA 1978, § 44-7A-1 et seq. The decision is final and binding and may be vacated, confirmed, or appealed only in accordance with the New Mexico Uniform Arbitration Act (NMSA 1978, § 44-7A-1 et seq.).

105.20.4 Litigation

If the Contractor does not Accept the T/LPA's decision the Contractor shall issue its notice of Public Works Mediation within three (3) Days of the T/LPA's decision. The Contractor shall provide no less than seven (7) Days' notice of the convening of a mediation session. The Public Works Mediation shall be conducted in accordance with of the New Mexico Public Works Mediation Act (NMSA 1978, § 13-4C-1, et seq.). The Contractor shall exhaust the mandatory mediation procedures of the New Mexico Public Works Mediation Act before seeking judicial relief in State District Court. Failure to timely notice and convene a mediation session and to timely file and serve a summons and complaint shall operate as a waiver and abandonment of Contractor's Claim, shall act as an Acceptance of the T/LPA's decision, and shall bar the Contractor from proceeding to litigate the Claim. The T/LPA may process a unilateral Change Order implementing the T/LPA's decision based on the Contractor's abandonment or waiver of its Claim.

SECTION 106: CONTROL OF MATERIALS

106.1 CONTRACTOR-FURNISHED AGGREGATE AND BORROW SOURCES

Exploration and development of Material sources by the Contractor including related GRT and Tribal Taxes shall be Incidental.

The Contractor shall notify the Project Manager in writing of the Materials source prior to delivery of aggregate or borrow Materials to the Project. The Contractor shall provide Acceptable Materials and shall provide the following documentation to the Project Manager:

1. Location of source;
2. Copies of lease agreements, purchase orders, or Pit Agreements the Contractor has made with the pit owner or Supplier.
3. Evidence of environmental acceptability, which includes the completed environmental and Cultural Resource requirements of Section 107.14.1, “Environmental and Cultural Resource Studies and Approvals.” Such evidence shall, where appropriate include the completed and T/LPA Accepted recommendations for environmental and Cultural Resource management. Plans for restoration, including contouring and re-vegetation if necessary; and,
4. Testing results from a NMDOT Approved Testing Laboratory. http://dot.state.nm.us/content/dam/nmdot/Construction/Approved_Private_Testing_Laboratories.pdf

Upon request in writing from the Contractor, the Project Manager may approve Materials at the source prior to delivery. The Project Manager may reject sources, or specific areas within sources, due to failure to provide Acceptable Materials or due to environmental, social, or cultural concerns. If the Project Manager determines that the sources of previously Acceptable Materials do not produce Acceptable Materials, the Contractor shall provide Acceptable Materials from other sources, or make changes to the existing source to provide Acceptable Materials. No additional compensation or time shall be provided to the Contractor for unacceptable Materials or for developing alternate source locations.

The Project Manager will notify the Contractor in writing within ten (10) Days if its Material source is Acceptable.

106.2 SUPPLIER PLANT INSPECTION

The T/LPA may inspect Materials at the Supplier's plant. In this event, the Contractor shall:

1. Cooperate and ensure the cooperation of its Materials Supplier;
2. Guarantee unrestricted entry (at reasonable times) to areas where the relevant Material is being manufactured or produced;
3. Arrange for the necessary facilities to be adequately inspected for the production or fabrication of the Material; and,
4. Ensure adequate safety measures are implemented for the inspection.

The T/LPA may retest Materials, before or during use in the Work, and reject Materials that, when retested, do not meet the requirements of the Contract, even if the Materials were tested and Accepted at the plant.

106.3 SAMPLES, TESTS, AND CITED SPECIFICATIONS

The T/LPA will perform tests in accordance with standards, methods, or Specifications, of the Project's Contract. Unless otherwise specified in the Contract, the T/LPA will take samples and perform tests at its own expense. Unless otherwise specified in the Contract, the T/LPA will provide test results to the Contractor.

106.4 CERTIFICATES OF COMPLIANCE

The Contractor shall submit a Certificate of Compliance to the Project Manager before installing or incorporating Material in the Work using the NMDOT's current approved Certificate of Compliance form. Any additional documentation required to verify the information required by the Certificate of Compliance form shall be submitted contemporaneously with the completed Certificate of Compliance form.

The Contractor may provide Material purchased in bulk or left over from previous Projects by submitting Certificates of Compliance forms for those Materials.

Unless otherwise stated in the Contract, Materials not permanently incorporated into the Work will not require a Certificate of Compliance form.

Unless requested in writing by the Project Manager, electric items meeting UL approval and underground utility Materials meeting ASTM or AWWA Specifications that are so certified or stamped will not require a Certificate of Compliance form.

106.5 FOREIGN MATERIALS

Unless otherwise specified in the Contract, the Contractor shall deliver Materials manufactured outside the United States to approved locations within the State, where they shall remain until sampling and testing are complete. The Contractor shall arrange for testing that the T/LPA is not able to perform, at no additional cost to the T/LPA, and shall test foreign Materials within the State in the presence of the T/LPA.

The Contractor shall provide a Certificate of Compliance for each lot of foreign Material in accordance with Section 106.4, "Certificates of Compliance;" and, if required, provide with the Certificate of Compliance, certified MTRs for each lot, and clearly identify to which lot they apply.

For structural Material, the T/LPA will only Accept Material from foreign and domestic manufacturers that have established adequate in-plant Quality Control to the satisfaction of the

Project Manager. The T/LPA will not Accept structural Materials that do not have Certificates of Compliance and MTRs.

The Project Manager may inspect the plant or require the Contractor to submit detailed written proof of adequate Quality Control.

106.6 STORAGE OF MATERIALS

The Contractor shall request from the Project Manager written approval to store Equipment or Materials within the ROW for the adequate execution of the Work. The Contractor shall store Equipment and Materials to preserve quality and fitness, to protect against vandalism or theft, and to facilitate inspection. The Contractor shall be responsible for the replacement or repair of Materials affected by inadequate protection.

106.7 HANDLING AND TRANSPORTING MATERIALS

The Contractor shall handle Materials in a manner that preserves the Acceptability for the Work. The Contractor shall ensure the transportation of Materials is in accordance with State and federal regulations, and prevent leakage of, scattering of, or damage to Materials. Materials damaged or lost in transportation shall be deemed unacceptable and are not subject to payment by the T/LPA.

106.8 T/LPA-PROVIDED MATERIALS

Material provided by the T/LPA will be made available to the Contractor as specified in the Contract. The Contractor will be held responsible for all T/LPA supplied Material when it takes physical possession of the Materials and until such time that the Materials are incorporated into the Work and Accepted.

106.9 MATERIALS DESIGNATED BY TRADE NAME

The Contract may require Materials or Equipment by trade or manufacturers' names. The T/LPA will not Accept the substitution of Materials or Equipment when the Contract requires Materials or Equipment of specific trade or manufacturers' names.

106.10 EQUIPMENT AND MATERIAL GUARANTEES AND WARRANTIES

Obtain and assign to the T/LPA manufacturer and producer guarantees or warranties for Materials and Equipment. Warrant, for six (6) months after Material or Equipment is installed and operational, that mechanical and electrical Equipment without a manufacturer or producer guarantee are free from defects or imperfections in workmanship and Materials. Repair malfunctions or defects that develop during the six-month period.

Supply manuals for Equipment incorporated in the Work providing the following

information:

1. Operational procedures;
2. Complete nomenclature;
3. Wiring diagrams;
4. Schematics showing test voltage and procedural methods;
5. Functional description of circuits;
6. Parts lists;
7. Cross-references to standard part numbers;
8. Names and addresses of sources for testing procedures where appropriate
9. Flow diagrams; and
10. Other relevant data.

106.11 SAFETY DATA SHEETS (SDS)

The Contractor shall submit to the Project Manager the most current SDSs for all Materials that require SDSs upon delivery of the Materials to the Project. The SDS shall conform to current Federal requirements in 29 C.F.R. § 1910.1200 (g).

106.12 BUY AMERICA REQUIREMENTS

The Contractor shall provide Materials in accordance with the Buy America Requirements in 23 C.F.R. § 635.410 on federal-aid Projects.

The Contractor shall bear the burden of proof and the cost to show the origin and place of manufacture of iron and steel products and Materials.

SECTION 107: LEGAL RELATIONS, ENVIRONMENTAL REQUIREMENTS, AND RESPONSIBILITY TO THE PUBLIC

107.1 LAWS TO BE OBSERVED

Before the start of Work, the Contractor shall be fully informed and make the necessary contacts with local governments and State agencies concerning obligations related to all applicable federal and State laws, all local laws, ordinances and regulations, and all orders and decrees of bodies or tribunals having jurisdiction or authority. The Contractor, Subcontractors, and Suppliers shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and protect and indemnify the T/LPA and its officers, employees and agents against all Claims or liability arising from or based on the violation of such laws, ordinances, regulations, orders, or decrees, by the Contractor, its officers, employees or agents, Subcontractors or Suppliers.

107.2 PERMITS, LICENSES, AND TAXES

The Contractor shall procure all permits and licenses; pay charges, fees, royalties, and appropriate taxes; and give notices necessary and incidental to the lawful performance of the Contract.

Prior to beginning Work the Contractor shall furnish to the T/LPA a written list of all permits required for the proper completion of the Contract. The list shall clearly identify the type of permit or permits that must be obtained before Work can be started. Copies of fully executed permits shall be furnished to the T/LPA upon request.

107.2.1 Compliance with Payment of Taxes

The Contractor shall pay all lawful taxes imposed by the State of New Mexico or other political entities.

The successful Bidder, after receiving the Notice of Preliminary Award of Contract, shall provide to the T/LPA both the Bidder's Taxation and Revenue Department tax identification number and the Bidder's Motor Transportation Division account number. If either of these numbers is unavailable, the Contractor shall submit a letter of explanation. A Notice to Proceed will not be issued until the Contractor submits both numbers or a satisfactory letter of explanation.

107.2.2 Gross Receipts, Indian Business Activity, and Tribal Employment Rights Organization Taxes

107.2.2.1 New Mexico Gross Receipts Tax

The T/LPA will pay the Contractor for applicable New Mexico GRT and local option tax (including tax increases or decreases effective after the Contract date), and the Contractor shall

pay applicable taxes to New Mexico Taxation and Revenue Department. The Contractor shall show the GRT and local option tax as a separate amount added to each request for payment.

The T/LPA shall be promptly reimbursed or repaid for any tax, including GRT, that is refunded to the Contractor, including any refund received by the Contractor after final payment, to the extent such tax was paid by the T/LPA to the Contractor. The Contractor shall keep and maintain all documents, applications for tax refund, and forms filed with, submitted to, received from, or required by the New Mexico Taxation and Revenue Department which relate to the payment or refunding of any tax paid pursuant to this Section for five (5) years following final payment. All of the above material shall be made available to the T/LPA, the NMDOT or FHWA for review, audit, inspection, and copying and shall be produced, upon request, at the address directed by the T/LPA.

107.2.2.2 Tribal Taxes

All Bids submitted shall exclude any tribal business tax, TERO tax, and other tax imposed by a tribal government. The T/LPA will either pay the tax or may challenge the tribal government's authority to impose the tax. If the T/LPA to challenges the tribal government's authority to impose the tax, the T/LPA will reimburse the Contractor for such tax only if a court of competent jurisdiction rules the tribe has authority to impose the tax. The T/LPA will be subrogated to the rights of the Contractor to Claim a refund of, or to contest, any such tax imposed on the Work to the extent any alleged obligation of the Contractor or the T/LPA to pay such tax arises under this Section or through the Contractor's performance of this Contract.

The T/LPA will reimburse the Contractor for payment of any Tribal Tax directly related to the performance of the Work within the Project imposed by a tribe upon tribal verification that the tax was paid by the Contractor.

107.3 RESERVED

107.4 RESERVED

107.5 PATENTED DEVICES, MATERIALS, AND PROCESSES

The Contractor's Bid Item Unit Price shall include the cost of all royalties and costs from patents, trademarks and copyrights needed to complete the Work.

If the Contractor employs any design, device, Material, or process covered by letters of patent, copyright or trademark, the Contractor shall secure approval for its use from the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the T/LPA from all Claims (including costs, expenses, and damages the T/LPA may be obligated to pay) for infringement by reason of its use. The Contractor and Surety shall also indemnify and save harmless any affected third party and any political subdivision from all Claims for infringement by reason of its use.

107.6 RESTORATION OF SURFACES OPENED BY UTILITY PROVIDERS

The T/LPA reserves the right to allow utility service providers with valid utility permit or an easement to enter the Project and perform utility Work.

When directed by the T/LPA the Contractor shall make all necessary repairs. If directed by the T/LPA, the repairs will be subject to the same requirements as the original Work performed. The T/LPA will pay for such repairs in accordance with Section 109.5, “Payment for Extra Work.”

The T/LPA will address time extension requests due to Work by utility service providers in accordance with Section 108.6, “Determination and Extension of Contract Time.”

107.7 FEDERAL AID PROVISIONS

When the FHWA or other federal agency will be reimbursing the costs for all or any portion of the cost of a Project, the Contractor shall observe and be subject to federal law applicable to such reimbursement. In such situations, federal requirements supersede conflicting provisions of State and local laws, rules, or regulations. The Work shall be subject to inspection and oversight by the appropriate federal agency. Such inspection or oversight shall not make the U.S. Government a party to this Contract, nor shall the U.S. Government interfere with the rights of the Contract parties.

107.8 SANITARY, HEALTH, AND SAFETY PROVISIONS

The Contractor shall provide and maintain sanitary accommodations for use by Contractor and T/LPA employees, in accordance with State and local boards of health, or other legal entity with jurisdiction.

The Contractor shall admit to the Project credentialed Inspectors from OSHA or other agencies responsible for health and safety administration.

107.8.1 State and Federal Land Managing Agencies

While working within or adjacent to State or federal lands and forests, the Contractor shall comply with all regulations of the State or federal authority having jurisdiction governing the protection of these areas, and observe all sanitary laws and regulations. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other Structures in accordance with applicable federal or State regulations.

107.9 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall provide for the convenience and safety of the general public, for reasonable access by local residents and businesses, and for the protection of persons and property, in accordance with Section 104.5, “Maintenance of Traffic.”

107.10 RAILROADS

If the Project affects railroad lines, the Contractor shall observe the requirements of the following Sections and the insurance requirements in accordance with Section 107.25, “Insurance Requirements.”

For the purpose of this Section, the term “agreement” means the contract between the Contractor and railroad that defines the rights and responsibilities of both the Contractor and railroad for the Project. The term “immediate construction site” shall mean the area of the Project defined as having impacts on the railroad in the agreement.

107.10.1 Reserved

107.10.2 Notice to the Railroad

Unless otherwise stated in the Contract, the Contractor shall not begin Work in railroad-owned Right of Way before entering into an agreement with the railroad.”

107.10.3 Cooperation with Owner of Railroad Right of Way

The T/LPA is not liable for any additional costs or expenses of the Project resulting from the railroad’s reallocation of its labor forces assigned to complete railroad Work in the event of an emergency when the owner of the railroad ROW believes such reallocation is necessary to provide for the immediate restoration of the railroad operations or to protect persons or property on or near any other property owned by the railroad.

107.10.4 Reserved

107.10.5 Reserved

107.10.6 Reserved

107.10.7 Reserved

107.11 ENVIRONMENTAL AND CULTURAL RESOURCES APPROVAL, HAZARDOUS MATERIALS

The T/LPA will obtain the environmental and Cultural Resource approvals for the Project before construction. The T/LPA will describe in the Contract any environmental and Cultural Resource requirements developed to protect resources.

The T/LPA will describe in the Contract any Hazardous Materials identified and the Contractor shall observe the requirements of Sections 107.1, 107.2, 107.8 and the applicable paragraphs of 107.14.

107.12 ENVIRONMENTAL, CULTURAL RESOURCE AND HAZARDOUS MATERIALS DISCOVERIES

The Contractor shall terminate operations and provide written notification per Section 104.2.2, "Differing Site Conditions," when it discovers environmental, Cultural Resources or Hazardous Materials not identified in the Contract. The T/LPA will coordinate with appropriate regulatory authorities during this time, the Contractor shall continue Work in other unaffected areas. The Project Manager shall provide written notification to the Contractor when Work may commence in the area of terminated operations.

107.13 CONTRACTOR'S RESPONSIBILITY FOR DAMAGE TO ENVIRONMENTAL AND CULTURAL RESOURCES

The Contractor shall restore or mitigate all damage to environmental or Cultural Resources caused by the Contractor's failure to abide by requirements included in the Contract as well as those areas covered under Section 107.14, "Contractor's Responsibility for Environmental and Cultural Resource Protection," at no additional cost to the T/LPA. The T/LPA, in coordination with regulatory authorities, will determine the extent of restoration or mitigation. The Contractor shall pay any fine imposed on the T/LPA by a regulatory agency for a regulatory violation caused by the Contractor. The Project Manager may suspend the Work in areas where environmental or Cultural Resource violations occur.

107.14 CONTRACTOR'S RESPONSIBILITY FOR ENVIRONMENTAL AND CULTURAL RESOURCE PROTECTION

107.14.1 Environmental and Cultural Resource Studies and Approvals

The Contractor shall obtain new certifications for any Contractor located activity outside the Project Limits or for expansions or additions to existing previously certified areas. If the Contractor purchases Material from a Material source established for another Project by another Contractor working under Contract to the T/LPA, and if the Material source must be expanded beyond the area where environmental and Cultural Resource approvals have previously been obtained pursuant to Section 107.14.1, "Environmental and Cultural Resource Studies and Approvals," then the requirements for environmental acceptability shall apply to the additional area and requirements of Section 107.14.1, "Environmental and Cultural Resource Studies and Approvals," must be completed by the Contractor.

Before beginning soil-disturbing activities (in accordance with Section 106.1, "Contractor-Furnished Aggregate and Borrow Sources"), the Contractor shall notify the Project Manager in

writing of the proposed studies to be performed. After the Project Manager's concurrence with the Contractor's studies the Contractor shall employ an Environmental Specialist and a Cultural Resource Professional to conduct the approved studies. The Contractor shall ensure that the studies meet the standards of the NMDOT, the State historic preservation officer, and any State, tribal, or federal land-managing agency or entity with jurisdiction. The Contractor shall ensure that the resource studies are in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. § 4321 et seq.), the National Historic Preservation Act (16 U.S.C. § 470 et seq.), and the New Mexico Cultural Properties Act (NMSA 1978, § 18-6-1 to 18-6-17), or any other successor statutes. The studies may extend, but are not limited to, the following locations:

1. Camp sites;
2. Plant sites;
3. Crusher sites;
4. Stockpile sites;
5. Equipment yards;
6. Borrow Pits;
7. Surfacing Pits; and,
8. Water sources.

The Contractor shall obtain the environmental and Cultural Resource approvals regardless of land ownership. For the environmental approval, the Contractor shall use the NMDOT -furnished checklist Categorical Exclusion form (or equivalent form furnished by the NMDOT), which shall be signed by the Contractor and the Environmental Specialist.

For Cultural Resource reports, use the standard site investigation forms approved by the New Mexico Historic Preservation Division and the New Mexico Cultural Properties Review Committee.

The Contractor may use previously-completed environmental and Cultural Resource studies, provided all other requirements of this Section are met.

The Contractor shall submit the documentation prepared for the environmental and Cultural Resource approvals to the Project Manager. Contractor located activities on State land, or privately owned land, may take 45 Days or more for approval after the Contractor delivers the resource studies to the Project Manager. Contractor located activities on federal land have no defined period for approval. The T/LPA will not approve requests for additional Contract Time or compensation related to Contractor Located Activities.

The Contractor shall comply with all conditions and commitments for protection of resources contained in resource agency requirements and in the environmental and Cultural Resource approvals. The environmental approval is the FHWA-approved checklist categorical exclusion, or its equivalent. The Cultural Resource approval is the concurrence letter signed by the State historic preservation officer, or its equivalent.

The Contractor shall repair at the Contractor's expense all damage to environmental or Cultural Resources caused by the Contractor's failure to meet the requirements for environmental

acceptability or abide by T/LPA directives issued to protect resources identified during the environmental and Cultural Resource evaluation. The nature and extent of such repairs shall be determined after consultations between the Contractor, T/LPA and NMDOT representatives, and the regulatory authorities with management jurisdiction over the subject resources.

107.14.1.1 Commercial Material Sources

Environmental acceptability requirements do not apply to Commercial Material Sources. Upon request of the Project Manager, the Contractor shall submit copies of its Commercial Sources Air Quality Permit, Groundwater Permits, and Business License.

107.14.2 Parking and Cleaning of Equipment

For Projects that have received environmental and Cultural Resource approvals through programmatic categorical exclusions (e.g., pavement preservation and rehabilitation, guardrail replacements, Bridge deck replacements, signalization upgrades, etc.), environmental and Cultural Resource studies will not have been completed outside the existing paved areas by the T/LPA. These Projects will be noted as such in the Contract. For these Projects, the Contractor shall take special care when parking and cleaning Equipment, as outlined in the following requirement.

The intent of the following requirement is to ensure the protection of sensitive environmental and Cultural Resources that may be present within the Right of Way and to encourage the Contractor to avoid damaging these resources when parking and cleaning Equipment. The Contractor shall ensure that parking and cleaning of Equipment within the Right of Way does not damage environmental and Cultural Resources, in one (1) or a combination of the following manners:

1. Park and clean Equipment in previously disturbed areas only;
2. Identify all parking and cleaning locations in previously undisturbed areas, prior to construction, and complete the environmental and Cultural Resource approvals as described in Section 107.14.1, “Environmental and Cultural Resource Studies and Approvals;” or
3. Park and clean Equipment in previously undisturbed areas without completing the environmental and Cultural Resource approvals as described in Section 107.14.1, “Environmental and Cultural Resource Studies and Approvals,” and assume all risk and liability for any damage to environmental or Cultural Resources resulting from these actions.

107.14.3 Clean Water Act

The Contractor shall comply with the New Mexico Water Quality Act (NMSA 1978, § 74-6-1 et seq.) and applicable permits and regulations in accordance with the federal Clean Water Act (33 USC § 1251 et seq.).

The T/LPA will apply for and obtain permits and certifications required for construction involving “waters of the United States” as defined by the U.S. Army Corps of Engineers. The Contractor shall comply with the terms of the permit obtained and shall be fully liable for consequences resulting from its failure to comply. The T/LPA will provide a copy of the permits and certifications in the Contract.

107.14.4 Minimization of Soil Disturbance

The Contractor shall minimize damage to or removal of vegetation and trees, except as approved in Section 104.6, “Rights in and Use of Materials Found on the Work.” The Contractor shall not clear, grub, disturb, or excavate land beyond what is authorized by the Contract. The Contractor shall remediate or replace vegetation due to an unauthorized clearing or damage, at no additional cost to the T/LPA.

107.14.5 Air Quality Requirements and Dust Abatement

The Contractor shall perform dust abatement on the Project and as directed by the Project Manager. The Contractor shall ensure any operations which produce particulate matter comply with State and federal air quality regulations, as administered by the Air Pollution Control Bureau of the NMED, applicable local air quality regulations, and the federal Clean Air Act (42 USC § 7401 et seq.).

107.14.6 Noise Abatement

The Contractor shall not operate Equipment that emits noise above 70 dbA, measured at a distance of 50 ft, in urban or populated rural areas during the hours specified in the Contract, and shall comply with County or municipal ordinances if they are more stringent than the requirements in the Contract.

107.14.7 Disposal of Materials

Unless otherwise specified in the Contract, the Contractor shall be solely responsible for disposal of Materials. In the disposal of Material the Contractor shall comply with all federal, State and local regulations. The Contractor shall not dispose of Material within the Project Limits without written approval from the Project Manager.

107.14.8 Disposal of Other Materials and Debris

The Contractor shall move items designated for removal without salvage, unsuitable construction Materials, and debris from clearing and grubbing to an environmentally suitable disposal site secured and coordinated with the appropriate regulatory agencies. The Contractor shall not place any items in wetland areas or areas that may impact endangered species or Cultural Resources. The Contractor shall obtain an environmental and Cultural Resource

approval in accordance with Section 107.14.1, “Environmental and Cultural Resource Studies and Approvals.”

107.14.9 Prime Coat, Tack Coat, and Soil Sterilants

The Contractor shall not contaminate soils outside the Roadway Prism when applying prime coat, tack coat and soil sterilants. The Contractor shall not contaminate arroyos, irrigation supplies (acequias and ditches), wetlands, water impoundments, and live streams.

107.14.10 Noxious Weed Prevention

To avoid the spread of noxious weeds, all prime and Subcontractor construction Equipment (including but not limited to trucks, excavators, bulldozers, loaders, scrapers, backhoes, trailers, tractors, hydro-seeders, drill-seeders, straw-blasters, compost-spreaders, bobcats, and disks) shall be pressure-washed to remove all visible mud, soil, and debris prior to entering the Project Limits.

107.15 HAZARDOUS MATERIALS

The T/LPA will describe in the Contract, all known Hazardous Materials within the Project Limits.

107.15.1 Hazardous Material Discoveries

During construction, should Material be encountered which is or the Contractor believes to be hazardous or contaminated, the Contractor shall immediately: terminate operations in the immediate area, notify the Project Manager in writing per Section 104.2.2, “Differing Site Conditions,” and the appropriate regulatory authority, and continue Work in other areas. The Project Manager, District Coordinator, Environmental Geology Bureau Manager, and environmental regulatory authorities shall investigate to determine the nature and extent of the Hazardous Material or contamination within the Right of Way. If the Contractor is not qualified, as determined by experience and/or licensure, to undertake a clean-up action, the Contractor shall retain the services of a qualified firm. Any adjustments shall be made in accordance with Section 109.5, “Payment for Extra Work.”

Should the Contractor fail to notify the Project Manager of Hazardous Material discoveries and/or fail to respond in accordance with all applicable environmental regulations or any part of these Specifications, the Contractor shall pay, at no cost to the T/LPA, any fine or penalty imposed for regulatory violations.

107.16 PREVENTION OF FOREST AND GRASS FIRES

The Contractor shall prevent forest and grass fires. The Contractor shall notify appropriate officials at the earliest possible moment of the location and extent of any fire. The Contractor shall

comply with fire regulations applicable to the area of Work, and furnish and maintain firefighting Equipment and tools required in the Contract. The Contractor shall suspend fire-hazardous operations when necessary at the direction of the Project Manager.

If performing Work within or adjacent to State or National Forests, the Contractor shall comply with all regulations of the USDA Forest Service, State Forestry Division, New Mexico Department of Energy, Minerals and Natural Resources, or other authority having jurisdiction, governing the protection of forests and the performance of Work within forests. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction of field offices and other Structures in accordance with the requirements of the Forest Supervisor.

The Contractor shall take all reasonable precautions to prevent and suppress forest fires and shall require employees and Subcontractors to take all reasonable measures within their power to prevent and suppress forest fires. The Contractor shall make every possible effort to notify a Forest official at the earliest possible moment of the location and extent of a fire.

107.17 USE OF EXPLOSIVES

The Contractor shall exercise extreme care when use of explosives is necessary for the prosecution of the Work. The Contractor shall be responsible for all damage resulting from the use of explosives. The Contractor shall not endanger life or property, including new Work. The Contractor shall use, handle, load, transport, and store explosives and blasting agents in accordance with applicable laws and ordinances, as well as title 29 CFR Part 1926 Safety and Health Regulations for Construction (OSHA) and 30 CFR Part 15.32 whichever is more restrictive. The Contractor shall clearly mark explosives and store them securely. If no local laws or ordinances apply, the Contractor shall store explosives not closer than 600 feet from Roads, buildings, camping areas, or places of human occupancy. Unless otherwise required by an agreement between the Contractor and public utility or owner of railroad ROW, the Contractor shall provide five (5) Days' notice to any public utility and owner of railroad ROW having Structures or facilities near the Project, of the intention to use explosives, so that they may take steps to protect their property before detonation.

107.18 PROTECTION AND RESTORATION OF PUBLIC AND PRIVATE PROPERTY

The Contractor shall preserve public and private property including land, governmental survey monuments, and property markers from disturbance or damage until the Project Manager has witnessed or otherwise referenced their location, and directed their removal.

The Contractor shall restore public or private property damaged and pay fines directly or indirectly caused by the Contractor through any act, omission, neglect, or misconduct in the execution of the Work, or by defective Work or Materials, or by non-prosecution of the Work. The Contractor shall return such property to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as directed by the Project Manager. The Contractor shall maintain responsibility for damage until the Work is completed and

Accepted. The contractor shall provide the T/LPA with the information to update the control sheet records once a reference mark has been reestablished by the Contractor.

107.18.1 Public and Private Reference Marks

Unless otherwise specified in the Plans, the Contractor shall not disturb or damage any public or private reference marks. If the Contractor directly or indirectly by any act, omission, neglect, or misconduct in the execution of the Work disturbs or damages public or private reference marks the Contractor shall be solely responsible for any restoration of the reference marks in accordance with Section 801, “Construction Staking by the Contractor.” If the restoration of the public or private reference mark is done improperly then the Contractor shall be solely responsible for a fine of $2,000.00 per improper reference mark. Delays, costs or impacts associated with the improper restoration of a reference mark shall be the sole responsibility of the Contractor.

107.19 RESPONSIBILITY FOR THIRD PARTY CLAIMS AND DUTY TO DEFEND

The Contractor shall indemnify and hold harmless the T/LPA and its officers, employees and agents from and against any and all Claims and suits, liability, damages, losses or expenses, including attorney fees and costs, to the extent that they arise out of or are in any way connected with any act or omission of the Contractor, or its officers, employees or agents. The Contractor agrees, at its own expense, and upon written request by the T/LPA, to defend any suit, action or demand brought against the T/LPA on any Claim or demand covered herein.

The Contractor shall establish a local contact number (with area code) for filing Claims, and clearly post the number. In addition, post the name of the Contractor and telephone number at each approach and departure to the Project. The Contractor shall ensure that construction vehicles (Contractor, Subcontractor, and privately owned) working on the Project have clean, unobstructed license plates, and shall mark vehicles legibly with the appropriate company name.

The Contractor shall assign an individual by the date of the preconstruction conference, readily available during normal working hours, to respond to Claims from the public for losses alleged to have occurred within the Project, whether arising from Contractor or Subcontractor action or inaction. The Contractor shall provide claimants with a written outline of the Contractor’s Claims procedure, along with a written copy of the Contractor’s name, address, and telephone number together with the name and title of the individual assigned to handle Claims from the public and provide a copy of the same to the Project Manager. The Contractor shall maintain a status report of Claims filed, including the name, address, and telephone number of the claimant, the nature of the Claim, pertinent findings regarding the Claim, and a statement regarding the resolution of the Claim. The Contractor shall provide the status report to the Project Manager upon request.

107.20 CONTRACTOR’S RESPONSIBILITY TO PROTECT THE WORK

Until Final Acceptance of the Project by the Project Manager, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof, by the action of the elements or from other causes, whether arising from the execution or from the non-execution of the Work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to portions of the Work occasioned by the above causes before Final Acceptance and shall bear the expense thereof except as provided in Sections 104.5, "Maintenance of Traffic," and Section 105.18.1, "Partial Acceptance."

Should the Contractor be Delayed in the prosecution or completion of the Work by Contractors on contiguous Projects, Acts of God such as fire, flood, earthquake, tornado, or other cataclysmic phenomena of nature, epidemic, quarantine restriction, strike, freight embargo, acts of public enemy, acts of governmental authorities or railroads other than the T/LPA, or documented national unavailability of construction Material, for which the Contractor is in no way responsible, then the Contractor may be entitled to an extension of Contract Time per Section 108.6, "Determination and Extension of Contract Time," but is not entitled to additional compensation or damages for such Delay. For physical damage to the Work resulting from the above unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, the Contractor may be paid pursuant to Section 109, "Measurement and Payment." The Contractor shall not be entitled to non-allowable damages per Section 109.11, "Compensation for Claims."

In case of suspension of Work per Section 105.8.1, "Project Manager Authority," the Contractor shall be responsible, subject to the provisions of Section 104.5, "Maintenance of Traffic," for the Project and shall take such precautions as may be necessary to prevent damage to the Project.

107.21 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

The Contractor shall not begin Work in areas close to railroad, telecommunication, or utility company Right of Way or facilities, or other property where damage from the Work might result in expense, loss, or inconvenience to the owner, until arrangements are made with the Project Manager and the owner of the property for the protection of such property or facilities.

The Contractor shall promptly notify the Project Manager and affected utility or railroad owners of any interruption to services resulting from exposure, lack of support, or breakage. The Contractor shall provide continuous repair Work to restore water service if interrupted. The Contractor shall not perform Work near fire hydrants until provision for service has been approved by the local fire authority.

107.22 FURNISHING RIGHT OF WAY

The T/LPA will secure necessary Right of Way before construction, except as noted in the Contract.

107.23 PERSONAL LIABILITY OF PUBLIC OFFICIALS

T/LPA employees shall bear no personal liability in carrying out the provisions of the Contract or in exercising powers or authority granted to them by the Contract, it being understood that in such matters they act solely as agents and representatives of the T/LPA.

107.24 NO THIRD-PARTY LIABILITY

The T/LPA and the Contractor specifically agree that the provisions of this Contract do not make anyone, including any Subcontractor or Materials Supplier, a third-party beneficiary or authorize anyone not a party to this Contract to maintain an action for damages under this Contract.

107.25 INSURANCE REQUIREMENTS

The Contractor shall procure and maintain at no cost to the T/LPA insurance as detailed below, using an insurance company authorized to do business in New Mexico. Insurance shall cover operations under the Contract, whether performed by the Contractor, the Contractor's agents or employees, or Subcontractors. Contractor shall keep insurance in full force and effect for the entire period of the Work, up to and including Final Acceptance, and the removal of Equipment and employees, agents and Subcontractors. All insurance required in this Section shall be procured from insurance or indemnity companies with an A.M. Best Company financial strength rating level of A- or better, Class VII or better, unless otherwise approved in writing by the T/LPA. In no event shall the T/LPA approve the use of an insurance or indemnity company with an A.M. Best Company financial strength rating level of B or worse.

107.25.1 Liability Insurance

1. The Contractor shall obtain General Liability (Bodily Injury Liability and Property Damage Liability) insurance coverage applicable in full to the subject Project in the following minimum amounts:
   a. Personal and Bodily Injury Liability: $1,000,000.00 each person; $2,000,000.00 each occurrence (annual aggregate); and,
   b. Property Damage Liability: $2,000,000.00 each occurrence; (annual aggregate);
2. The insurance coverage shall be documented on a Comprehensive General Liability form or Commercial General Liability form, which must include the following:
   a. Coverage for liability arising out of the operation of independent Contractors;
   b. Completed Operations Coverage; and,
   c. Attachment of the Broad Form Comprehensive General Liability Endorsement;
3. If the Work includes the use of explosives, the Contractor's insurance must include coverage for injury to or destruction of property arising out of blasting or explosion;
4. If the Contract includes Work next to an existing building or Structure, the Contractor's insurance shall include coverage for injury to or destruction of property arising from the collapse of or structural injury to buildings or Structures due to the following:

a. Excavation, including borrowing, filling, or backfilling in connection therewith;
b. Tunneling and cofferdam or caisson Work; and,
c. Moving, shoring, underpinning, razing, or demolition of buildings or Structures, or removal or rebuilding of structural supports thereof; and,

5. Coverage must include injury to or destruction of property arising out of damage to wires, conduits, pipes, mains, sewers or other similar property or any apparatus in connection therewith below the surface of the ground, if such injury or destruction is caused by or occurs during the use of mechanical Equipment for the purpose of excavating, digging, or drilling.

107.25.2 Automobile Liability Insurance

The Contractor shall provide or ensure that all vehicles used in performance of the Contract have liability insurance. The Contractor is not responsible for liability insurance for the T/LPA or its agents. The Contractor shall provide limits of liability for automobile liability insurance in the following amounts:

1. Personal and Bodily Injury Liability: $1,000,000.00 each person; $2,000,000.00 each occurrence; (annual aggregate); and,
2. Property Damage Liability: $2,000,000.00 each occurrence; (annual aggregate).

107.25.3 Worker's Compensation Insurance

The Contractor shall carry worker's compensation insurance and otherwise fully comply with the New Mexico Worker's Compensation Act (NMSA 1978, § 52-1-1 et seq.) and the New Mexico Occupational Disease Disablement Law (NMSA 1978, § 52-3-1 et seq.).

107.25.4 T/LPA as Additional Insured

The Contactor shall name the T/LPA and any third party so designated in the Contract as an additional named insured on the comprehensive general liability form or commercial general liability form furnished by the Contractor in accordance with Section 107.25.1, "Liability Insurance." The certificate of insurance shall state that the coverage provided under the policy is primary over any other valid and collectible insurance. The additional insured endorsement shall conform to the most current version of the Insurance Services Office's CG 2010 or equivalent, Additional Insured Endorsement Form. The Contractor shall provide to the T/LPA a copy of the Contractor's standard commercial general liability policy showing the Additional Insured Endorsement before the T/LPA issues a Notice to Proceed.

107.25.5 Certificate of Insurance

The Contractor shall provide evidence of insurance coverage conforming to these Specifications with a certificate of insurance executed on the form provided by the NMDOT to be made part of the Contract. The certificate shall indicate compliance with these Specifications and shall certify that the coverage shall not be changed, canceled, or allowed to lapse without giving

the T/LPA 30 Days written notice. The Contractor shall provide a certificate of insurance to the T/LPA on renewal of a policy or policies as necessary during the term of the Contract. The T/LPA shall not issue a Notice to Proceed until the Contractor meets these requirements.

107.25.6 Umbrella Coverage

The insurance limits cited in this Section are minimum limits. The T/LPA does not intend that these Specifications define what constitutes adequate insurance coverage for the individual Contractor. The T/LPA will recognize excess coverage (Umbrella) as meeting the insurance requirements of Section 107.25.1, “Liability Insurance,” if the limits of the Umbrella coverage meet the individual requirements of this Section.

107.25.7 Optimal Insurance

If required by the Contract, Contractor shall procure and maintain form and types of bailee theft insurance such as, but not limited to, builder’s risk insurance, Contractor’s Equipment insurance, and rigger’s liability property insurance. If so required, the Contractor shall provide bailee theft insurance in an amount necessary to protect the T/LPA against Claims, losses, and expenses arising from the damage, disappearance, or destruction of property of others in the care, custody, or control of the Contractor, including property of others being worked upon by the Contractor, its agents, employees or Subcontractors.

107.25.8 Railroad Insurance

If the Work affects railroad property, in addition to the above requirements, unless otherwise specified in the Contract the Contractor shall obtain at its own cost a railroad protective liability policy in the name of the owner of the railroad Right of Way or railroad facilities involved. In addition, on those rails used by the National Railroad Passenger Corporation (NRPC), the Contractor shall obtain a railroad protective liability policy in the name of the NRPC.

Railroad liability insurance shall be in compliance with 23 CFR 646A. These limits of liability apply to the coverage as set forth in AASHTO’s Railroad Protective Liability Endorsement form, subject to the terms, conditions, and exclusions found in the form. The policy must afford coverage as provided in the standard Railroad Protective Liability Endorsement.

107.26 NO WAIVER OF LEGAL RIGHTS

Upon completion of the Work the T/LPA will pay the final payment voucher. Payment of the final payment voucher shall not preclude the T/LPA from correcting any measurement, estimate, or certificate made before or after completion of the Contract, nor from recovering from the Contractor or surety or both, overpayments sustained because the Contractor failed to fulfill the obligations under the Contract. A waiver on the part of the T/LPA of any breach of any part of the Contract shall not be held to be a waiver of any other subsequent breach.

The lack of discovery or rejection of a defect shall not preclude, nor obligate the T/LPA to Accept the defect.

The Contractor, without prejudice to the terms of the Contract, shall be liable to the T/LPA for latent defects, fraud, or such gross mistakes as may amount to fraud, and for warranty and guaranty.

107.27 CONTRACTOR'S RESPONSIBILITY TO THE TRAVELING PUBLIC

The Contractor shall minimize hazards to the traveling public in the Construction Zone from the commencement of the Work until Final Acceptance. Minimizing hazards shall include:

1. Keep Equipment, Materials, and workers out of the travel lanes;
2. Remove hazardous construction debris deposited within the Project Limits;
3. Inspect and repair the travel lanes (Necessary repairs of damage not caused by the Contractor will be paid for in accordance with Section 109.5, "Payment for Extra Work."); and,
4. Remove obstacles deposited by the public as they transit the Project.

The Contractor shall immediately correct hazards reported by Project inspections, T/LPA employees, or the public. The Contractor shall maintain and publicly post a 24-hour contact number to initiate action quickly.

107.28 CONTRACTOR RECORDS

The Contractor, Subcontractors and all Suppliers shall keep and maintain all documents in a useable format, including communications, books, papers, records, files, accounts, tax records, cost records, reports, schedules, Bid documents with backup data, including electronic data, and all other material relating to the Contract, Project, Contract compliance, or any Claim for five (5) years following Physical Completion of the Work. Unless otherwise specified in the contract all of the above material shall be made available to the T/LPA and the NMDOT for review, audit, inspection and copying and shall be produced, upon request by an authorized representative of either party at a location designated by the requesting party. The Contractor shall insert the above requirement in each subcontract and shall also include in all subcontracts a clause requiring Subcontractors to include the above requirement in any lower-tier subcontract. The Contractor's failure to maintain and timely provide all requested documents to the T/LPA or the NMDOT waives any Claim the basis of which could have, either in whole or in part, been documented or rebutted by such documents.

Resource Loading documents, financial statements provided by the Contractor, and Escrowed Bid Documents which have been visibly marked by the Contractor as "Confidential Trade Secrets" shall be deemed confidential as trade secrets and not subject to inspection pursuant to the Inspection of Public Records Act, NMSA 1978, § 14-2-4. However, if a request is received for disclosure of data, for which the Contractor has marked as a Confidential Trade Secret, the T/LPA shall examine the requested data and make a written determination that

specifies which portions of the proposal should be disclosed. If it is determined that a Contractor's requested confidential data should be disclosed, the Contractor will receive reasonable notice in order to afford the Contractor the opportunity to take legal action to prevent the disclosure. Unless the Contractor takes legal action to prevent the disclosure, the data will be so disclosed. Such documents may be disclosed to the T/LPA and the NMDOT, including any Inspector, Project Superintendent, Project Manager, Claim consultant, investigator, or testifying or consulting expert, if necessary to perform their duties, or as otherwise required by law.

107.29 ASSIGNING OF CONTRACT

The Contractor may not assign the Contract or assign or delegate any contractual obligation or duty without the prior written consent of the T/LPA, the NMDOT, and the Surety. Contractor may not make any assignment, in connection with the Contract, including assignment of any payment due Contractor or any Claim, for the benefit of any creditor.

107.30 SEVERABILITY AND CONTRACT INTERPRETATION

If any provision of this Contract is held to be invalid or unenforceable, the remaining provisions, or the application of such provision to either party, shall remain in full force and effect and, if possible, the rights and obligations of the parties are to be construed and enforced as if the Contract did not contain that term.

If any provision of the Contract is found to be superseded by any applicable State or federal law or regulation or court order, in whole or in part, then both parties shall be relieved of all obligations under that provision only to the extent necessary to comply with the superseding law or ruling, provided however, that the remaining provisions of the Contract, or portions thereof, shall be enforced to the fullest extent permitted by law.

The Contractor agrees that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Contract.

107.31 CHOICE OF LAW

This Contract is governed by and construed in accordance with the laws of the State of New Mexico.

SECTION 108: PROSECUTION AND PROGRESS

108.1 SUBCONTRACTING

Any individual, partnership, firm, corporation, or joint venture performing Work on the Project that is not an employee of the Contractor is a Subcontractor unless otherwise stated in the Contract.

A Supplier or Fabricator is not a Subcontractor unless Work is being performed within the Project Limits.

The Contractor shall perform with its own organization at least 40.0% of the Work based on the Total Bid Amount. The phrase, “its own organization” includes only workers employed and paid directly, inclusive of employees who are employed by a lease agreement Acceptable to the T/LPA and Equipment owned or rented or without operators and does not include employees or Equipment of the Subcontractor, assignee or agent of the Subcontractor. The Contractor is solely responsible and liable for the performance of all Work or any act by its Subcontractors, Truckers, and Suppliers on the Project. Liability of the Contractor and the Contractor’s Surety under the Contract and the Contract Bonds shall not be waived or diminished by subcontracting or any other assignment of interest.

The Contractor shall submit to the Project Manager a request to Subcontract on the current NMDOT approved form. The form must be concurred to by the T/LPA and the NMDOT before the subcontracted Work begins. Unless otherwise approved by the Project Manager, the request to Subcontract shall be submitted no later than two (2) Working Days before the Subcontract Work is scheduled to begin. The Contractor shall not circumvent this requirement by placing a Subcontractor’s employees on its payroll. If the Contractor does not perform at least 40.0% of the Work with its own organization requests for Subcontractor approval will be rejected. The T/LPA will treat a person or group generally operating as an independent contractor, as independent contractors for the purposes of this Section. An independent contractor is a person who is paid for Work by the Contractor who is not the Contractor’s employee and is not performing Work within the Project Limits such as the Contractor’s attorney or accountant.

The Contractor is responsible for ensuring that its Subcontractors are prequalified by the NMDOT and are also duly licensed for the Work to be performed on the Project, are registered with all of the State agencies as is required to do business in New Mexico and to perform Work on Public Works Projects including the New Mexico Taxation and Revenue Department and the New Mexico Department of Workforce Solutions or successor agencies, and are in compliance with all applicable State and federal laws and regulations including the New Mexico Public Works Minimum Wage Act. The Contractor shall comply with the New Mexico Subcontractor Fair Practices Act to the extent it is applicable to the Project. The Contractor shall update its list of Subcontractors and Suppliers submitted at the Pre-Construction Conference as the Work progresses.

A Trucker is not a Subcontractor unless the Contractor is using the Trucker to meet the DBE goal associated with the Project. A Trucker is an individual, partnership, firm, corporation, or joint venture that transports Materials to and from the Project and does not perform Work within the Project Limits. Transportation of Materials within the Project Limits is Work performed by the Contractor or a Subcontractor. Transportation of Materials on or off the Project site does not require a Subcontract.

The Contractor shall not construe the T/LPA's concurrence as an endorsement of the subcontract, the Subcontractor, or the Subcontractor's ability to complete the Work in a satisfactory manner. Subcontracting creates no Contract between the T/LPA and the Subcontractor. The Subcontractor gains no rights, and the T/LPA Accepts no responsibilities by reason of the Subcontractor's contract with the Contractor.

108.1.1 Prompt Payment

The Contractor shall promptly pay its Subcontractors and Suppliers for satisfactory performance of their contracts no later than seven (7) Days after receipt of Progress Payment for the Subcontractor's Work or Supplier's Materials by the T/LPA.

For purpose of this Section, a Subcontractor's and Supplier's portion of the Work is satisfactorily completed when the T/LPA processes a Progress Payment per Section 109.8, "Progress Payments." In no event shall the Contractor and its Subcontractors fail to promptly pay their Subcontractors and Suppliers the amounts due for undisputed Accepted Work within seven (7) Days of the Contractor receiving a Progress Payment from the T/LPA. The payment by the T/LPA to the Contractor is not a condition precedent for payment by the Contractor to any Subcontractor or Supplier. A zero dollar ($0.00) Progress Payment by the T/LPA does not relieve the Contractor from paying the Subcontractor or Supplier for Accepted Work.

The Contractor's failure to make timely or prompt Subcontractor or Supplier payment may result in the T/LPA rejecting the Contractor's future Bids in accordance with Section 102.5, "Rejection of Bids." The Contractor's repeated failure to make timely Subcontractor payment may also lead to Suspension or Debarment in accordance with Section 102.3, "Suspension and Debarment."

108.2 NOTICE TO PROCEED AND PRE-CONSTRUCTION CONFERENCE

108.2.1 Notice to Proceed

The T/LPA may issue the Notice to Proceed within 30 Days after the T/LPA's Contract execution, unless otherwise agreed to by the parties. The Notice to Proceed will identify the timeframe the Contractor shall begin Work and when Contract Time shall begin. The Contractor's shall not commence Work without a Notice to Proceed.

108.2.2 Pre-Construction Conference

After the issuance of the Notice to Proceed, the Project Manager will provide written notice to the Contractor of the date, time and location of the Pre-Construction Conference. The Pre-Construction Conference will occur during the timeframe in the Notice to Proceed. If the Contract has ramp up time, the Pre-Construction Conference shall occur before the ramp up time commences.

The Contractor shall ensure the Project Superintendent or the individual who executed the Contract attends the Pre-Construction Conference. The Contractor's shall not commence Work without a Pre-Construction Conference and the items above are Accepted by the T/LPA. Commencing Work without a Pre-Construction Conference may result in a Non-Conformance. Contract Time shall commence as indicated in the Notice to Proceed and no additional Contract Time will be granted.

The Contractor shall provide the following at a minimum of ten (10) Days before Pre-Construction Conference. The Pre-Construction Conference will not be held until the required items are provided to the T/LPA:

1. Letters of assignment (official capacity) for Project;
    a. Project Superintendent;
    b. Company and Project Safety Officer;
    c. Traffic Control Supervisor (include current certifications and copy of wallet card)
2. A list with samples of authorized signatures and assignments for Supplemental Agreements (Change Orders), Progress Payments, payrolls and related items ;
3. Baseline Schedule;
4. Additions, revisions deletions to the Traffic Control Plan;
    a. Proposed changes to the Project;
    b. Potential problems with the construction of the Project;
5. List of Subcontractors and Material Suppliers;
6. Lump Sum breakdowns;
7. Weighmasters / Deputy Weighmaster certifications (must be maintained throughout the duration of the Project);
8. Progress Payment cutoff date;
9. Company EEO policy statement;
10. Recruitments letters (attachments E-K of the EEO package);
11. Superintendent's indoctrination letter (attachment D of EEO package);
12. If applicable the on-the-job training letter (Attachment R of the EEO package);
    a. The trainee classification letter must include the number of trainees to be trained, the training program to be used, the classification of each trainee and the approximate start date;
13. The completed Civil Rights / EEO Pre-Construction Report. Complete and sign the portions that are applicable;
14. Pre-Construction safety questionnaire;
15. VECP form; and
16. Other items and any other documents required by the Contract or as directed in the Project

Manager's notice of Pre Construction.

108.3 SCHEDULE

108.3.1 Baseline Schedule

The Project shall utilize a CPM format as the Baseline Schedule unless otherwise specified in the Contract.

The Project Manager will notify the Contractor in writing within ten (10) Days of the submittal of a Baseline Schedule if the schedule is "Accepted," "Accepted as noted," or is "rejected." For Baseline Schedules that are "rejected," the Project Manager shall communicate, in writing, to the Contractor all portions of the schedule that are not in compliance with the Contract requirements. The Contractor shall, within seven (7) Days of receipt of the reasons for rejection of the schedule, provide a new Baseline Schedule and all additional information necessary for the Project Manager to "Accept" the Baseline Schedule. The Project Manager will notify the Contractor in writing within seven (7) Days of the submittal of the corrected Baseline Schedule if the schedule is "Accepted," "Accepted as noted," or is "rejected." The Contractor's failure to provide a timely and Acceptable new Baseline Schedule in response to a rejected schedule waives any Claim the basis of which would have been documented by an Acceptable Baseline Schedule.

Unless otherwise specified in the Contract, the Contractor is wholly and solely responsible for construction means, methods or techniques, therefore the Project Manager's review of the Baseline Schedule will be for compliance with the Specifications and Contract requirements. Acceptance by the Project Manager shall not relieve the Contractor of any of its responsibilities for the accuracy or feasibility of the schedule. Any Baseline Schedule which exceeds the as let Contract Time may be "Accepted as noted" and does not revise the Contract Documents, including Contract Time, unless accompanied by a related Change Order. The T/LPA's Acceptance of a Baseline Schedule that exceeds as let Contract Time shall not operate as a waiver of the T/LPA's right to assess liquidated damages. A Baseline Schedule that reflects a Completion Date before the expiration of Contract Time does not revise the as let Contract Time and will be considered float for the exclusive use and benefit of the T/LPA. The Contractor shall not commence Work until the Project Manager Accepts a Baseline Schedule.

The T/LPA will use the Baseline Schedule to measure Project performance and for evaluation of changes to the Contract. Failure by the Contractor to include any element of Work required for performance of the Contract shall not excuse the Contractor from completing all Work within the required time.

108.3.1.1 CPM Baseline Schedule

Unless otherwise specified in the Contract the Contractor shall provide a CPM Baseline Schedule which clearly describes the following:

1. Created in the most current version of the scheduling software identified in the Contract;

2. Identifies the Project's Critical Path;
3. Includes all activities required to complete the Work, including but not limited to, engineering, surveying, permitting, submittals, approvals, procurement, fabrication, deliveries, crushing, utility Work and third party Work;
4. Includes milestones, interim Completion Dates, Substantial Completion Date, Physical Completion Date, and other key dates specified in the Contract;
5. Describe activities such that the Work is readily and identifiable. The activities shall provide the station or location of the Work;
6. Identifies the scheduled early and late start and finish dates for each activity;
7. Limits activity relationships to finish to start, start to finish, and finish to finish relationships. Use of leads and lags must be explained in the narrative;
8. Use only contractual date constraints, unless otherwise approved by the Project Manager;
9. Defines the Work calendar for each activity;
10. Narrative at a minimum including the plan for sequencing the Project;
11. Defines the duration of each activity;
12. Total Float and Free Float for each activity;
13. Workdays each week;
14. Contractor designated Holidays;
15. Number of shifts and Work hours per Day;
16. Anticipated weather events, based on historical data from the last seven (7) years;
17. Resource Loading that shows production rates; and
18. Cost loading that shall include the projected Project completion, measured in dollars and time, on a monthly basis or at each Progress Payment cut-off date.

108.3.2 Schedule Format

108.3.2.1 CPM Schedule Format

The Project shall utilize a CPM format as the Baseline Schedule unless otherwise specified in the Contract.

The Contractor shall prepare and submit one (1) electronic copy and two (2) time-scaled color prints of the CPM Baseline Schedule, updated monthly schedule, and revised schedules using a Project scheduling software as directed by the T/LPA that includes the following features:

1. Ability to display the schedule as a Gantt chart;
2. Ability to clearly display the Critical Path of scheduled activities apart from the non-critical scheduled activities;
3. Ability to calculate and display Total Float and Free Float for each activity;
4. Ability to clearly display the early start, late start, early finish and late finish dates for each activity; and,
5. Ability to easily store and transfer the schedule as a file (or files) from one computer to another.

108.3.2.2 Bar Graph Baseline Schedule

If required by the Contract the Contractor shall submit the Baseline Schedule in bar graph form. The Baseline Schedule shall list Contract features or Work activities in sufficient detail to show a reasonable and workable plan to complete the Project within the Contract Time. The Contractor shall show the following on the bar graph Baseline Schedule:

1. Each Work activity as a bar;
2. Each activity's planned start and Completion Dates;
3. Each activity's estimated cost and percent of Total Bid Amount;
4. The overall Project cost;
5. The planned Project Completion Date;
6. The monthly projected percent complete in time and dollars;
7. A plot of the monthly projected percent complete (in dollars) superimposed on the bar chart; and,
8. Any approved Project suspensions and time extensions.

108.3.3 Monthly and Revised Schedules

For this Section "schedule" refers to CPM or Bar Graph as required by the Contract. The T/LPA considers an updated monthly schedule as an update to the Accepted Baseline Schedule when no changes in activities have occurred except for the progression of planned Work. The T/LPA considers a revised schedule as a schedule that modifies the Accepted Baseline Schedule. If Accepted the revised schedule becomes the current Baseline Schedule.

Each activity in a monthly or revised schedule shall contain the same information required for the Baseline Schedule. Any updated or revised schedule that exceeds the as let Contract Time may be Accepted as Noted and does not revise the Contract Documents, including Contract Time, unless accompanied by a related Change Order. The T/LPA's Acceptance of an updated or revised schedule does not operate as a waiver of the T/LPA's right to assess liquidated damages.

The contractor shall submit an updated or revised schedule in accordance with 108.3.3.1, "Monthly Schedule Update." If the contractor fails to submit an Acceptable schedule, The T/LPA may take action in accordance with Section 109.8.2, "Non-Conformance." The Contractor's repeated failure to provide Acceptable monthly or revised schedules may lead to Suspension or Debarment in accordance with Section 102.3, "Suspension and Debarment." Failure to timely provide a monthly or revised schedule waives any Claim the basis of which would have been documented by an Acceptable monthly or revised schedule.

Float generated on Critical Path activities due to the acceleration of the Contractor's performance, at the written direction of the Project Manager, shall be for the exclusive use of the T/LPA; and, Float generated on Critical Path activities due to modification, reduction or elimination of items shall be for the exclusive use of the T/LPA. The float generated by a VECP may be split equally for the mutual use of the T/LPA and the Contractor.

Conditioned upon obtaining District Engineer prior approval with concurrence by the CLE, the

T/LPA may grant time extensions only to the extent that the activities on the Critical Path of the CPM Baseline Schedule in effect at the time of the Delay are impacted.

108.3.3.1 Monthly Schedule Update

The Contractor shall submit an updated schedule monthly by the Progress Payment cut-off date.

108.3.3.2 Contractor's Independent Duty to Provide Schedule Revisions

If it becomes apparent, or should have become apparent to the Contractor that the Contractor cannot complete the Work within the Contract Time, the Contractor shall provide a revised schedule and recovery plan to the Project Manager within five (5) Days. When the Critical Path changes, and when applicable, the Contractor shall provide a revised schedule and recovery plan to the Project Manager within five (5) Days.

If the Work falls behind schedule, the Contractor shall take such steps as may be necessary to mitigate damages and improve its progress including development of a recovery plan. For an excusable Delay, noncompensable Delay, concurrent Delay, as those terms are identified in Section 109.11, "Compensation for Claims," the Contractor shall take all reasonable steps to minimize the impact of the Delay once a Delay causing event is identified. Failure to do so may result in the rejection of all or part of the Delay Claim.

If the Delay cannot be mitigated, the Contractor shall promptly submit either a written request for an extension of the Contract Time pursuant to Section 105.19, "Notice of Intent to Claim," and Section 105.20, "Administrative Remedy," or request approval of a late completion schedule and shall be liable for liquidated damages.

For an inexcusable Delay or a nonexcusable Delay, as those terms are identified in Section 109.11, "Compensation for Claims," the Contractor shall consider as a minimum the following potential schedule mitigation techniques: increase the number of shifts, begin overtime operations, work extra Days including weekends and Holidays, or supplement its construction plant and submit, as provided in this Section, a revised schedule with a proposed recovery plan, as may be deemed necessary to demonstrate the manner in which the agreed rate of progress shall be regained, all at no cost to the T/LPA.

The revised schedule shall show Contract Time, Project Completion Date and all additional information necessary for the Project Manager to "Accept" the revised schedule. The Contractor's failure to provide a timely and Acceptable revised schedule waives any Claim the basis of which would have been documented by an Acceptable revised schedule. The Project Manager will provide the Contractor with a decision in writing within five (5) Days of receiving the revised schedule. The revised schedule shall become the current Accepted Baseline Schedule.

108.3.3.3 Schedule Revisions at Request of T/LPA

If it becomes apparent to the T/LPA that the Contractor cannot meet the schedule, the Project Manager may request a schedule revision and recovery plan from the Contractor. The Contractor shall, within five (5) Days of receipt of the request, provide a revised schedule. The Project Manager will provide the Contractor with a decision in writing within five (5) Days of receiving the revised schedule. The revised schedule shall become the current Accepted Baseline Schedule. The Contractor's failure to provide a timely and Acceptable response waives any Claim the basis of which would have been documented by an Acceptable revised schedule.

108.3.3.4 Schedule Update and Revision Information

The Contractor's updated monthly and revised schedules shall conform to the requirements of Section 108.3.1, "Baseline Schedule," and shall show:

1. Actual start and finish dates of each activity;
2. Remaining duration of activities started but not yet completed;
3. Delays and changes resulting from the addition, deletion or revisions to activities due to the issuance of a Change Order, change to an activity duration, changes to relationship between activities or changes to the planned sequence of Work or the method and manner of its performance; and
4. Narrative report describing:
    a. Processes during the month;
    b. Shifts in the critical activities from the previous update;
    c. Sources of Delay;
    d. Weather Days;
    e. Traffic switches;
    f. Allocations of crews;
    g. Work completed the previous month;
    h. Potential problem areas;
    i. Work planned for the next update period; and
    j. Changes made to the schedule.
    k. The Superintendent shall sign the narrative and provide certification statement stating that the progress shown on the schedule update accurately represents Work completed through the date indicated:

108.4 UNSATISFACTORY PROGRESS OF WORK

The Project Manager will issue a notice of unsatisfactory performance to the Contractor. The notice shall be sent by certified mail and identify the unsatisfactory performance

The progress of the Work is deemed unsatisfactory when:

1. The dollars earned by the Contractor on the Project are 15% less than the estimated dollars earned, as shown on the current Accepted baseline progress schedule;
2. When the start of an activity on the Critical Path, as shown on the current Accepted progress schedule, has exceeded its late start date by seven (7) Days;

3. When an activity on the Critical Path, as shown on the current Accepted progress schedule, has exceeded its original duration by ten (10) or more Days; or,
4. When the Project Manager determines that the progress of Work is unsatisfactory.

When the progress of the Work is deemed unsatisfactory the Project Manager and the Contractor shall meet to address the schedule within five (5) Days. The Contractor shall provide a revised schedule with a narrative addressing Project progress compliance or anticipated liquidated damages. The T/LPA's approval of a late completion schedule will not operate as a waiver of the T/LPA's right to assess liquidated damages. Failure by the contractor to address the unsatisfactory progress within five (5) Days after the meeting, will result in the Project Manager issuing a Notice of Apparent Default to the Contractor per Section 108.9, "Default of Contract."

108.5 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT

108.5.1 Character of Workers

The Contractor shall provide the resources necessary to complete the Work as specified. The Contractor shall ensure workers have the experience and skills to perform assigned Work.

The Contractor shall remove employee(s) who perform the Work in an unskilled manner, is in eligible to perform the Work, or who is intemperate or disorderly. The Contractor shall allow these employees to return to the Project only with the Project Manager's written permission.
If the Contractor or its employee(s) fail to comply with these requirements the Project Manager may suspend the Work at no cost to The T/LPA.

108.5.2 Methods and Equipment

The Contractor shall use methods and Equipment capable of performing the Work specified in the Contract. The Contractor shall ensure that the Equipment does not damage the Roadway, adjacent property or other Highways, Streets, or Roads.

The Contractor shall request permission of the Project Manager in writing to use methods or Equipment other than those specified in the Contract. The Contractor shall describe the proposed methods and Equipment to be used and the reasons for the change. The Contractor shall perform Work in accordance with the original Basis of Payment and Contract Time. The Contractor shall discontinue use of alternate methods or Equipment when Work does not meet Contract requirements. The Contractor shall remove and replace unacceptable Work or repair deficient Work at no cost to The T/LPA.

108.6 DETERMINATION AND EXTENSION OF CONTRACT TIME

The T/LPA will provide the Contract Time in the Advertisement, in Working Days, Days, or Mandatory Completion Date.

For Working Day Projects, the Project Manager will provide the Contractor with a weekly statement showing the Contract Time, the number of Working Days used, the accumulated Working Days charged, and the number of Working Days remaining to complete the Work. The Contractor shall have three (3) Days after receipt of the weekly statement to object in writing to the weekly statement, setting forth the specific dates and justifications for the objection. If the Project Manager finds that the Contractor's objection is valid, or if there is an error, then the Project Manager will issue corrected weekly statement(s). If the Project Manager determines that the objection is not valid the Project Manager will notify the Contractor in writing. If the Contractor continues to object to the weekly statement then the Contractor may file a Notice of Intent to Claim. If the Contractor fails to timely object, the weekly statement is deemed Accepted by the Contractor.

The Contractor is not entitled to a Partial Suspension, at its own request, when any of the conditions below apply:

1. Projects with a Bar Graph Schedule
2. Projects with a Mandatory Completion Date;
3. Projects that are Calendar Day;
4. When performing Work on the Critical Path;
5. When the Contractor has not provided proper justification and the Project Manager has not approved the request;
6. The Work obstructs the Traveled Way; or
7. For issues for which the Contractor is responsible.

Partial Suspension shall be lifted if the Contractor works on Critical Path activities and the Project Manager shall commence the Contract Time count.

If completion of the Contract requires Extra Work that impacts the Critical Path, the Contractor shall provide the T/LPA an updated progress schedule and narrative requesting additional Contract Time associated with the Extra Work. Upon submission of adequate justification by the Contractor the District Engineer for the NMDOT District where the Project is located will determine if any adjustment in Contract Time is warranted with concurrence by the CLE.

Any request for additional Contract Time shall be made in writing to the Project Manager. If the Project Manager rejects a time extension request, the Contractor may proceed pursuant to Section 105.19, "Notice of Intent to Claim."

108.7 Reserved

108.8 LIQUIDATED DAMAGES

The T/LPA is entitled to assess liquidated damages for failure of the Contractor to complete the Work within the Contract Time. A daily charge will be made against the Contractor not as a penalty, but as liquidated damages, for each Day for any Work that remains uncompleted after the lapse of Contract Time.

In suits involving the assessment or recovery of liquidated damages, the reasonableness of daily charges will be presumed and the amount assessed will be in addition to every other remedy enforceable at law, in equity, by statute, or under the Contract.

The T/LPA does not waive its rights to assess liquidated damages under the Contract by allowing the Contractor to finish the Work after the expiration of Contract Time.

The Contractor shall complete the Work within the Contract Time. The T/LPA's Contract administrative costs, including engineering, inspection, and supervision, will be increased as the time to complete the Work increases.

The Contractor agrees that the following schedule of liquidated damages, unless otherwise specified in the Contract, represents an amount sufficient to cover estimated average daily costs incurred by the T/LPA if the Contractor does not complete the Project within the Contract Time and does not operate as a penalty to the Contractor:

Schedule of Liquidated Damages

Total Original Contract Amount ($)	Charge ($) per Day
≤100,000	500
>100,000–500,00	1,000
>500,000–1,000,000	1,500
>1,000,000–2,000,000	2,000
>2,000,000–4,000,000	2,500
>4,000,000–7,000,000	3,000
>7,000,000–10,000,000	4,000
>10,000,000	5,000

The T/LPA will deduct liquidated damages from the next Progress Payment due to the Contractor after Contract Time expires and will continue to assess liquidated damages each Progress Payment until the determination of Substantial Completion. If the T/LPA directs Extra Work after Substantial Completion, the T/LPA will rescind the determination of Substantial Completion and then assess Contract Time in accordance with Section 104.2, "Extra Work." If the amount of liquidated damages exceeds the monies due to the Contractor for that Progress Payment then the T/LPA will seek reimbursement for any liquidated damages exceeding the dollar amount withheld from the Contractor.

If the Contractor has been granted Substantial Completion, but has not satisfied the requirements of Section 109.10, "Project Closure," the T/LPA reserves the right to continue to assess liquidated damages until Physical Completion. Upon the completion of steps I through VII of Project Closure the District Coordinator shall provide a written determination of Physical

Completion to the Contractor which stops further assessment of liquidated damages.

108.9 DEFAULT OF CONTRACT

The T/LPA may declare the Contractor in default of the Contract if the Contractor:

1. Fails to perform the Work with sufficient resources (supervision, workers, Equipment, or Materials) to assure the completion of the Work;
2. Performs the Work unsuitably, or neglects or refuses to remove Materials or to correct rejected Work;
3. Fails to begin the Work within the time specified in the Notice to Proceed;
4. Discontinues the Work;
5. Fails to resume discontinued Work after the T/LPA issues a request to resume Work;
6. Becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy code, or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily;
7. Allows a final judgment, in a suit filed in connection with this Contract, to stand unsatisfied for 30 Days;
8. Makes an assignment, in connection with the Contract, for the benefit of its creditors;
9. Fails to carry on the Work in an Acceptable manner in accordance with the Contract;
10. Fails to comply with Contract requirements or willfully violates any term or condition of the Contract;
11. Fails to perform the Work or maintain the Project in compliance with Federal and New Mexico Occupational Health and Safety laws and regulations;
12. Fails to observe or comply with Federal and New Mexico laws and regulations, local laws and ordinances,
13. Is debarred or suspended in accordance with the Section 102.3, “Suspension and Debarment,” or is suspended or debarred by any federal agency;
14. Communicates that the Contractor may not perform under the Contract;
15. Fails to promptly pay a Subcontractor or Supplier for undisputed Accepted Work in accordance with Section 108.1, “Subcontracting;” or

The complete default process is sequential and consists of the following steps:

1. Notice of Apparent Default;
2. Declaration of Default and Demand for Surety to Complete the Work; and,
3. T/LPA Completion of the Work;

108.9.1 Notice of Apparent Default

The Project Manager will provide written notice to the Contractor and the Contractor’s Surety specifying the condition(s) in Section 108.9, “Default of Contract,” that the Contractor violated and the corrective measures to be taken by the Contractor. If the Contractor or Surety does not proceed with the corrective measures within ten (10) Days of the date written notice, the T/LPA, has full power and authority, without violating the Contract, to declare the Contractor in default.

108.9.2 Declaration of Default and Demand for Surety to Complete the Work

The written declaration of default is separate from the notice of apparent default and will be addressed to both the Contractor and the Surety. The declaration of default is issued after time for the Contract to take corrective measures expires in Section 108.9.1, “Notice of Apparent Default.” The declaration of default removes the corrective measures from the Contractor, and will demand compliance by the Surety of the terms, conditions, and obligations contained in the Performance Bond.

If the T/LPA determines that the Contractor is in default the Surety shall complete the Work at its own expense pursuant to the Contract and receive the balance of any funds owed to the Contractor.

108.9.3 T/LPA Completion of the Work

If the Surety fails to complete the Work, the T/LPA will complete the Work. The T/LPA will deduct costs and charges that the T/LPA incurs as a result of the default and the cost of completing the Work from Contract funds due to or which may become due to the defaulting Contractor or Surety. If the total costs for completing the Work exceeds the amount that would have been payable under the Contract, the defaulting Contractor and the Surety shall be jointly and severally liable for the excess costs.

If a default of the Contractor is later determined to be without cause, the default of the Contractor will revert to a Section 108.10, “Termination of Contract; No Fault of Contractor,” and the Contractor is not entitled to recover damages other than those allowed by that Section.

108.10 TERMINATION OF CONTRACT; NO FAULT OF CONTRACTOR

The T/LPA may terminate, by written notice and order, all or part of the Contract, after determining the following:

1. That the Contractor is prevented from proceeding with or completing the Work as originally contracted for reasons beyond the control of the Contractor; or
2. That termination would be in the public interest.

Reasons for termination may include, but are not limited to, the following:

1. Executive orders of the President of the United States;
2. Executive orders of the Governor of the State of New Mexico;;
3. An emergency that creates a serious shortage of Materials, as deemed by the T/LPA
4. Orders from duly constituted authorities relating to energy conservation;
5. Restraining orders or injunctions obtained by third party citizen actions resulting from national or local environmental protection laws or where the issuance of the order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor; or,
6. To correct any material errors or omissions or to correct any discrepancy or contradictions within the Contract discovered after execution of the Contract by both parties, the failure

of which to correct is likely to lead to Contractor Delay, a Claim for additional time, or a Claim for compensation which may exceed the costs recoverable under this Section.

108.10.1 Submittals and Procedures

When the T/LPA issues a notice and order for a Contract termination effective on a certain date the T/LPA will pay:

1. For the actual number of units or items of Work completed at the Bid Item Unit Price;
2. For items of Work started but not completed as negotiated and mutually agreed. Negotiated amount shall not exceed the Bid Item Unit Price;
3. For invoices to restock or for invoices for Material on hand for Work not yet started. Invoices shall be provided by the Contractor documenting both costs and T/LPA will make a determination on how to proceed, including delivery of the Material if needed. For the purposes of this Section, Materials on hand are Materials that are ordered and have been manufactured before the date notice and order of termination is issued.

After the Contractor receives the termination notice and order from the T/LPA, and no agreement or only a partial agreement is reached about the termination costs, then Contractor shall submit any Claim for damages or costs within 30 Days of the date of the notice and order of termination or shall waive such Claim. The Contractor shall submit the Claim in accordance with Sections 105.19, “Notice of Intent to Claim,” and 105.20, “Administrative Remedy.” The Claim shall be limited to the following cost items:

1. Actual and direct Bidding and Project investigative costs which are separate and excluded from home office overhead costs;
2. Actual and direct mobilization costs, mobilization paid by the T/LPA exceeding actual and direct mobilization costs may be subject to reimbursement by the Contractor;
3. If Work is stopped in advance of the termination date, idle Equipment time using standby-time rental rates at 50% of the Blue Book Equipment rental rate, without the operating cost;
4. If Work is stopped in advance of the termination date, idle labor costs;
5. Unpaid Supplier costs;
6. Accounting charges involved in Claim preparation;
7. Written and executed agreements for private land usage; and
8. An additional ten percent (10%) of the total of the above items 2, 3, 4, and 5 to cover home office overhead and salaried labor expenses.

The Contractor shall provide those records required by Section 105.20.1, “Submittal of the Claim to the Project Manager,” to the T/LPA to determine the validity and amount of each Claim item. The Contractor shall not be entitled to recover anticipated loss of profits or any category of damages excluded pursuant to Section 109.11, “Compensation for Claims.”

Full or partial Contract termination does not relieve the Contractor of its contractual responsibilities for the completed Work, nor will it relieve the Surety of its obligation for Claims arising out of the completed Work.

SECTION 109: MEASUREMENT AND PAYMENT

109.1 MEASUREMENT OF QUANTITY

The T/LPA will measure Pay Items in accordance with the Pay Unit listed in the Contract.

109.1.1 Pay Unit Terminology

Otherwise, the following terminology controls:

1. The distance between stations is 100 feet, measured longitudinally;
2. Longitudinal measurements are along and parallel to surfaces, not horizontal. For Pay Items measured by the square yard, the T/LPA will make no deduction for fixtures in the Work with areas less than one (1) square yard;
    a. Transverse measurements for areas of Base Course and pavements are the neat line dimensions shown on the Plans based on the average width of the installed Material along the centerline of the Roadway;
    b. Structures are measured according to the neat lines shown on the Plans or as provided by the T/LPA;
    c. For Pay Items measured by the foot, measurements are parallel to the base or foundation;
3. The volume of excavation is calculated by using the average end area method at 25 foot intervals or other Project Manager approved methods;
4. A ton equals 2,000 lb; a “sack” equals 94 lb of cement;
5. Timber and lumber (permanently incorporated in the Project) is measured by the foot, and measured on nominal widths and thickness and the length of each piece. The T/LPA will Accept lumber and timber conforming to the American Lumber Standards for rough and dressed sizes, as specified in the Contract;
6. Standard manufactured items, identified by unit weight or section dimensions, are measured using nominal weights or dimensions. The T/LPA will Accept manufacturing tolerances established by the industries involved, unless otherwise stated in the Contract.
7. Asphalt Materials are measured by the ton or as designated in the Contract. The weight is based on net certified scale weights or weights calculated from certified volumes. The certified weights or volumes are subject to inspection and adjustment at the point of delivery.
8. Materials that are measured by weight shall be measured and proportioned by weight using certified and accurate scales that are within tolerances established by State law;
    a. The Contractor shall provide scales or use commercial scales;
    b. Scales shall be certified and sealed at least once every 12 months or each time the scales are relocated, or as directed by the Project Manager;
    c. Weighmasters (including Deputy Weighmasters), provided by the Contractor and certified by the NMDA, shall operate the scales. The certified weighmasters shall perform their duties in accordance with the regulations of the New Mexico T/LPA of Agriculture statutes and regulations concerning the same. The cost of the certified

weighmasters, weighmasters' scales, scale tickets, scale house, and verification of the scale's accuracy is Incidental to the weighed Material;

d. Empty vehicles used to haul Material paid by weight shall be weighed at least twice daily, at a minimum once prior to initial Material delivery and once prior to final Material delivery. The Contractor shall ensure vehicles bear legible identification marks. On a daily basis the Contractor shall provide the Project Manager with a written list of delivery vehicles showing identification marks, number of axles, the distance between extreme axles and daily tare weights. The Contractor shall update this information before delivery of the Material and when the Contractor changes vehicles, combination vehicles, or axle length relationships;
e. The T/LPA may convert weight to volume, or volume to weight, for payment purposes. The Project Manager will determine the factor(s) for conversion using an Acceptable method;
f. The operator of each weighed vehicle shall obtain a scale ticket (certificate of correct weight) from the weighmaster and deliver the ticket to the Project Manager or designee at the point of delivery. The following information shall be included on the scale ticket:
    i. Project number;
    ii. Date;
    iii. Ticket number;
    iv. Truck / Trailer unit number;
    v. Gross weight;
    vi. Tare weight;
    vii. Net weight;
    viii. Material type;
    ix. Certified weighmaster's name;
    x. Signature of weighmaster; and
    xi. Whether the driver was on or off the scale during weighing.

109.2 APPROVED EQUIPMENT RENTAL RATES

For machinery or Equipment owned or leased directly by the Contractor or its Subcontractor at any tier, the Contractor will be paid Equipment rental rates as designated in the Contract. The T/LPA will not compensate the Contractor or its Subcontractors at any tier for owned or leased small tools. Small tools are defined as any tool which would be valued less than $2000.00 if purchased new.

The Blue Book rates shall be used for the actual time the Equipment is in operation calculated by using the Federal Highway Administration rate. The FHWA rate is equal to the monthly rate divided by 176 (hours/month) plus the hourly operating cost. The FHWA rate must also be adjusted for age and geographic region. Therefore, the "FHWA" rate in the Blue Book represents monthly rate/176 x age adjustments x regional adjustments plus hourly operating cost. The T/LPA may add a maximum of 10% only to the Equipment rental rates. The T/LPA will apply Equipment rental rates pursuant to the Blue Book and in accordance with the following criteria:

1. The manufacturer’s identification plates on the Equipment will be used to identify the Equipment and its capacities. If the Equipment does not have these plates, the Contractor shall provide written statements certifying the Equipment identification and capacity as shown on the Contractor's Equipment inventory. The Contractor shall submit the type, capacity, and horsepower of each piece of Equipment, to correlate with the Blue Book schedule. The Blue Book reflects the maximum rates for Equipment of modern design and in good-working condition;
2. The Blue Book lists common pieces of Equipment. If the Blue Book does not list a piece of Equipment the use of the Blue Book rental rate for a comparable piece of Equipment shall be used as approved by the Project Manager. If no comparable piece of Equipment is identified in the Blue Book the Project Manager may negotiate a rental rate with the Contractor at a fair market rental rate;
3. If a piece of Equipment, not available on the Project, requires hauling onto the Project, the Contractor shall include the actual transportation cost (in and out). The T/LPA will pay the transportation cost for each piece of Equipment once. Under unusual circumstances the Contractor may provide to the T/LPA written justification for additional transportation costs;
4. The Contractor shall only be paid the operating rate for those hours the Equipment is actually in use. A standby rate for Equipment required to be at the Work site but not operating may by paid by the T/LPA if agreed to in writing in advance by the Project Manager in which case the T/LPA will pay for standby Equipment using standby-time rental rates at 50% of the Blue Book Equipment rental rate, without the operating cost.
5. The regional difference percentage, as described in the Blue Book does not apply. However, the factors in the Rate Adjustment Tables of the Blue Book do apply;
6. Overtime, as described in Blue Book does not apply. The T/LPA will pay for Equipment used on Extra Work at the regular hourly rate in accordance with the rate provided in the Blue Book.

109.3 SCOPE OF PAYMENT

The Contractor shall receive and accept compensation in accordance with the Bid for performing the Work in an Acceptable manner. The compensation associated with the Bid shall include the risks, losses, damages and expenses that, when considering the nature of the Work and having exercised Pre-Bid Due Diligence, should have been reasonably expected by the Contractor in prosecuting the Work.

The Contractor shall receive and accept compensation provided for in the Contract as full payment for furnishing all Materials and for performing all Work under the Contract in a complete and Acceptable manner subject to the provisions of Section 107.26, “No Waiver of Legal Rights.” The Contractor’s Bid Item Unit Price is presumed to be based on its exercise of Pre-Bid Due Diligence and considers all risk, loss, damage, or expense of whatever character arising out of the nature of the Work.

The T/LPA will pay for the approved actual quantities of Material incorporated into the Work unless otherwise provided in the Contract.

The T/LPA will only pay for Pay Items listed in the Contract in accordance with the “Basis of Payment” provisions. Items not included in the “Basis of Payment” provisions shall be considered Incidental, unless otherwise indicated in the Contract. The T/LPA will not pay separately for Work Incidental to the completion of a Pay Item, or pay for the Incidental Work under another Pay Item; except as provided in Section 104.6, “Rights in and Use of Materials Found on the Work.”

Payment for any Pay Item shall be full compensation for all Work necessary to complete the Pay Item.

When a Contract Item Specification references another Specification(s) to complete the Work, Pay Items referenced in that Specification, the Pay Items referenced will not be measured or paid for separately. *For example, if the Specification for Contract Item “A” refers to Specification “B” the Pay Items in Specification “B” will not be paid for, unless specifically stated in the Contract. The Payment for Contract Item “A” will be full compensation for Work as described in the Specification for Contract Item “A”.*

The Contractor shall not receive payment for corrective Work. Corrective work is Work required by the T/LPA to make previously unacceptable Work Acceptable.

The T/LPA may Accept portions of the Work at an adjusted price in accordance with the relevant Pay Adjustment provisions in the Contract. The adjusted price only applies to the specific Accepted portion of Work.

109.4 COMPENSATION FOR OVERRUN / UNDERRUN QUANTITIES

When the Project Manager determines the Work is Acceptable, the T/LPA will pay the Contractor in accordance with Basis of Payment section or Change Order. If the Accepted quantities of Work vary from the quantities in the Contract, the Contractor shall accept, as payment in full, payment based on the Bid Item Unit Price for the Accepted quantity.

109.5 PAYMENT FOR EXTRA WORK

The T/LPA will pay the Contractor for Extra Work resulting from significant changes in the character of the Work, differing site conditions or T/LPA ordered Work based on the following order of priority for payment:

1. Bid Item Unit Prices;
2. Negotiated unit prices;
3. Negotiated Lump Sum; or
4. Force Account.

For Items of Work performed by the Contractor, the negotiated unit price or negotiated Lump Sum price shall include all costs associated with the Work. If Subcontractors perform Work as Extra Work under items 2, 3 or 4, the T/LPA may only compensate the Contractor up to an

additional ten percent (10%) of the total actual cost of the subcontracted Work less than or equal to $10,000.00 for indirect and administrative costs. If the total cost of the subcontracted Work is greater than $10,000.00 then the T/LPA shall only compensate the Contractor $1,000.00 plus 5% of the excess over $10,000.00.

109.6 FORCE ACCOUNT

When the order of priority for payment is exhausted and Extra Work must be paid by Force Account, the T/LPA will pay the Contractor in accordance with the following Sections.

If the total cost of the subcontracted Work by Force Account is less than or equal to $10,000.00, then the T/LPA shall only compensate the Contractor an additional ten percent (10%) of the total cost of the subcontracted Work for indirect and administrative costs. If the total cost of the subcontracted Work is greater than $10,000.00 then the T/LPA shall only compensate the Contractor $1,000.00 plus 5% of the excess over $10,000.00.

109.6.1 Labor

The T/LPA will pay the wage rate for Force Account Work actually paid by the Contractor during the pay period ending before the Force Account Work commences. Such payment shall include Work by supervisors in direct charge of the Force Account Work. If there is no wage rate for a labor classification needed to perform the type of Work required, the T/LPA and Contractor will negotiate and document a new wage rate before beginning the Force Account Work.

Labor shall also include, and the T/LPA will reimburse for, the following actual reasonable costs paid to (or on behalf of) workers:

1. Subsistence and travel allowances that do not exceed the New Mexico Per Diem and Mileage Act or other T/LPA approved per diem rates;
2. Health and welfare benefits;
3. Retirement fund benefits;
4. Vacation benefits; and
5. Other benefits required by collective bargaining agreements or other employment Contract, applicable to the class of labor.

The T/LPA will pay an amount equal to 30 percent of the sum of the direct labor costs and fringe benefits. This payment is in compensation in the following increments: field office overhead (10 percent), home office overhead (10 percent), and profit (10 percent).

109.6.2 Bond, Insurance, and Tax

The T/LPA will pay the Contractor either:

Option 1

The actual cost of the following, plus six percent (6%):

1. Property damage, liability, and worker's compensation insurance premiums;
2. Unemployment insurance premiums or contributions;
3. Applicable payroll taxes (not including gross receipts taxes); and
4. Social Security taxes.

To recover actual costs, the Contractor shall provide actual invoice costs of the rate(s) it has paid for bonds, insurance, and taxes.

Option 2

In lieu of supplying the above evidence and recovering actual costs:

1. The Contractor shall receive payment at a rate representing 30% of the labor costs for labor burden; and
2. The Contractor shall also receive payment for the additional costs to Contract Bonds supported by invoice(s).

109.6.3 Materials

The T/LPA will pay the Contractor the actual cost of Materials Accepted by the Project Manager and incorporated into the Force Account Work, including transportation charges paid by the Contractor (exclusive of Equipment rentals), plus 15% of the Material cost.

109.6.4 Equipment

For special Equipment (other than small tools as defined by the Blue Book), including fuel and lubricants and transportation costs, the T/LPA will pay rental rates as determined in accordance with Section 109.2, "Approved Equipment Rental Rates," unless otherwise agreed in writing.

109.6.5 Miscellaneous

The T/LPA will not pay for other costs not specifically addressed in Section 109.6, "Force Account."

109.6.6 Documentation

The Project Manager will use forms approved by the NMDOT to track Force Account costs. The Contractor shall compare and reconcile records with the Project Manager daily, or as otherwise directed by the Project Manager, to determine the amount of Force Account Work completed by the Contractor.

109.6.7 Statements

The T/LPA will not pay for Force Account Work until the T/LPA verifies that the Force Account Labor, Material and Equipment forms are supported by the documents below. Contractor furnishes the Project Manager with itemized statements of the cost of the Force Account Work detailed as follows:

1. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman;
2. Attachments verifying Equipment brand, year of manufacture, operating Specifications, dates of use, daily hours, total hours, current Blue Book rental rate, and rate of applicable attachment for each piece of Equipment;
3. Quantities of Materials and prices; and,
4. Transportation of Materials.

Statements shall be supported by receipted invoices for all Materials used and for transportation charges. For in-stock Materials or Materials furnished by the Contractor, the Contractor shall provide an affidavit certifying that such Materials were taken from the Contractor's stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor. This requirement does not waive the Contractor's responsibility to provide Certificates of Compliance per 106.4, "Certificates of Compliance."

The total payment made as provided above shall constitute full compensation for Force Account Work authorized in writing by the T/LPA.

109.7 ELIMINATED ITEMS

Should Pay Items contained in the Contract become unnecessary for the reasonable completion of the Work, the Project Manager may direct the Contractor, in writing, to eliminate Pay Items from the Contract. This written notification will not invalidate the Contract. The T/LPA will reimburse the Contractor for actual Work completed before the written notification at Bid Item Unit Price.

The total cost of return freight, handling and restocking for Materials associated with that eliminated Work will then be increased by 15%. If Materials cannot be returned, the T/LPA will pay for said Materials at Contractor's actual cost and take ownership.

109.8 PROGRESS PAYMENTS

The Contractor shall not construe any Progress Payment to be an Acceptance of any defective Work or improper Material.

The Acceptance of Work for the purposes of Progress Payments does not constitute Final Acceptance of the Work.

The T/LPA will make Progress Payments once each month. The Project Manager will prepare and post Progress Payments based on estimates of the value of the Work performed and

Materials complete-in-place, and in accordance with Section 109.9, “Stockpile,” and minus price reductions within five (5) Days of the estimate cut-off date.

The T/LPA will include monies associated with an Accepted and fully executed change Order when the Work is Accepted with the next Progress Payment.

The Project Manager shall process a Progress Payment on a monthly basis regardless of the dollar amount, including zero dollar ($0.00), owed the Contractor.

The T/LPA has the authority to withhold Progress Payments in part or in their entirety as part of a suspension.

109.8.1 Reserved

109.8.2 Non-Conformance

If the Contractor fails to comply with all material terms and conditions of the Contract the T/LPA may withhold an additional 25% as a Non-Conformance from each Progress Payment and subsequent Progress Payments. Release of Non-Conformance withholdings shall be processed at the next scheduled Progress Payment after the resolution of the Non-Conformance.

Nothing in this Section prevents the T/LPA from withholding application and certification for payment because of the following: unsatisfactory job progress, defective construction not remedied, disputed Work, third party Claims filed or reasonable evidence that a Claim will be filed, failure of the Contractor to make timely or prompt payments for labor, Equipment, and Materials, damage to the T/LPA, reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract,.

The Contractor is not entitled to late payment charges, including late payment charges pursuant to NMSA 1978, § 13-1-158, associated with any payment retained under this Section.

109.8.2.1 Automatic Non-Conformance

These items do not follow the Potential Non-Conformance process below. The failure to comply will automatically result in the issuance of a Non-Conformance and withholding of an additional 25% as a Non-Conformance from each Progress Payment. The following items shall be provided in the timeframes in their respective Section:

1. The Certificate of Compliance per Section 106.4, “Certificates of Compliance” for Materials that are required to be Buy America compliant per Section 106.12, “Buy America Requirements;”
2. Schedule submittals within the timeframes in Section 108.3, “Schedule;”
3. Prime Contractor’s certified payrolls complete submittal within the timeframe in the “Federal Requirements” Notice to Contractors; and,
4. The Contractor’s prompt payment to its Subcontractor for undisputed Accepted Work.

109.8.2.2 Potential Non-Conformance

For all other terms of the Contract, that the Contractor fails to comply with the T/LPA will issue a Notice of Potential Non-Conformance. The Notice of Potential Non-Conformance will be issued on a form similar to that used by the NMDOT and the Contractor shall have five (5) Days after the Progress Payment cutoff date to resolve the issues listed on the form.

If the Contractor resolves all issues on the Notice of Potential Non-Conformance within five Days after the Progress Payment cutoff date then no action to withhold the 25% Non-Conformance amount is taken by the T/LPA. If the Contractor does not resolve each issue on the Notice of Potential Non-Conformance within five Days after the Progress Payment cutoff date then the T/LPA will withhold an additional 25% as a Non-Conformance from each Progress Payment and subsequent Progress Payments until the Contractor fully complies with the Contract.

For Safety Items the T/LPA will include a timeframe to resolve the issue in the Notice of Potential Non-Conformance that may be other then five (5) Days after the Progress Payment cutoff date. If the Contractor fails resolve the safety issue in the Notice of Potential Non-Conformance in timeframe then the T/LPA will withhold an additional 25% as a Non-Conformance from each Progress Payment and subsequent Progress Payments until the Contractor fully complies with the Contract**.**

109.9 STOCKPILE

Only items identified in the Notice to Contractors titled “Stockpile” are eligible for Stockpile payment.

109.9.1 Stockpile Payment

After measurement, partial (stockpile) payments to the Contractor may be made for Items on hand not to exceed 50% of the Bid Item Price under the following conditions:

1. The Items will be incorporated in the Work;
2. The Items are delivered to the Project or to a storage place approved by the Project Manager;
3. The delivered Items meet the requirements of the Contract, including Certificates of Compliance per Section 106.4, “Certificates of Compliance;” and,
4. The Contractor submits paid invoices, certified by the Supplier or Fabricator, to the Project Manager.

109.10 PROJECT CLOSURE

Step I. Contractor Notice of Projected Substantial Completion Date
Step II. Completion Conference

Step III. Termination of Contract Time
Step IV. Project Inspection and Development of Punch List
Step V. Notice of Punch List Completion and Request of Final Inspection
Step VI. Final Inspection
Step VII. Contractor Submittal of Final Documentation
Step VIII. Physical Completion and Final Payment

109.10.1 Contractor Notice of Projected Substantial Completion Date

The Contractor shall provide written notification to the District Coordinator of the projected Substantial Completion Date. This notice shall be provided a minimum of 30 Days prior to the projected date unless otherwise approved by the Project Manager.

109.10.2 Completion Conference

Prior to the projected Substantial Completion Date, the District Coordinator and the Project Manager shall conduct a completion conference with the Contractor to review the Project and determine conformance with the Contract. The T/LPA and Contractor will address all outstanding Work needed for Substantial Completion. The T/LPA and Contractor will agree on the schedule for completion of all Work necessary for Project closure pursuant to Section 109.10, “Project Closure.”

Within five (5) Days of the completion conference or as directed by the Project Manager the Contractor shall submit for approval by the Project Manager the Contractor’s proposed updated schedule for Project closure.

109.10.3 Termination of Contract Time and Determination of Substantial Completion

After steps I and II of Project Closure are complete and the Contractor has determined it is ready to request Substantial Completion, the Contractor shall provide to the T/LPA a written request to determine Substantial Completion. Within two (2) Days of receipt of the request for Substantial Completion the T/LPA, upon obtaining NMDOT concurrence, will issue a determination of Substantial Completion, Contract Time or, if applicable, Liquidated Damages assessments will cease upon Substantial Completion.

109.10.3.1 Rescinding Substantial Completion

The T/LPA may rescind Substantial Completion by written notice when any of the conditions for Substantial Completion in the definition of Substantial Completion are no longer met. Substantial Completion may also be rescinded by the T/LPA when T/LPA Ordered Work per Section 104.2.3, “T/LPA Ordered Work,” is required.

109.10.4 Project Inspection and Development of Punch List

The Project Manager shall inspect the Project to verify that all Work is complete or develop Punch List items upon the determination of Substantial Completion. The Project Manager shall provide the Contractor written notice that all Work is complete or shall provide a Punch List. Contract Time shall resume if the Contractor fails to provide Acceptable Work associated with the Punch List within the agreed upon schedule that shall not exceed thirty (30) Days and resumed Contract Time shall continue until all Punch List Work is Accepted.

109.10.5 Notice of Punch List Completion and Request of Final Inspection

The Contractor shall provide written notification to the Project Manager that the Punch List is complete and request final inspection.

109.10.6 Final Inspection

The final inspection by the Project Manager, District Coordinator and the CLE will be scheduled and conducted within fourteen (14) Days of the Contractor written request for final inspection. If the inspection reveals unacceptable or unsatisfactory Work, the Project Manager shall give the Contractor written instructions for correction and set the time limit for the Contractor to comply with these instructions. Upon the Contractor's correction of the Work, written notification shall be provided to the Project Manager, the Project Manager shall make an additional inspection and notify the Contractor within fourteen (14) Days of the findings.

If the Project Manager, District Coordinator and the CLE are satisfied that the Work is complete and Acceptable, that inspection shall constitute the final inspection. The Project Manager shall provide written notification of the final inspection Acceptance to the Contractor within four (4) Days.

The T/LPA will Accept the Project as soon as practicable after completion and inspection of the Work. Acceptance is final and conclusive, except for the following situations:

1. Latent defects;
2. Fraud;
3. Gross mistakes that amount to fraud; or
4. The T/LPA's warranty or guaranty rights.

109.10.7 Contractor Submittal of Final Documentation

The Contractor shall submit a schedule for submittal of the following documents required by the Contract including the Final Payment Voucher, Certificate of Payment of Claims, Summary to Contractor, Pit Release Letter, additional named insured Insurance Bonding Release, Affidavit of Wages Paid and Surety Release within five (5) Days of the date of the written notice of final inspection Acceptance. For the Pit Release Acceptance by the Project Manager of a letter of intent from the landowner for future use may exempt haul Roads or other areas from their vegetation requirements.

The Contractor shall furnish a completed Certificate of Payment of Claims form from persons or firms, including the Contractor, who have filed Claims for additional compensation, for labor performed, or for Material, supplies, or services furnished to the Contractor or its Subcontractors.

The T/LPA shall withhold final payment and no late payment interest shall be due for the withheld payments until the Contractor furnishes all documents required by the Contract.

109.10.8 Physical Completion, Final Payment and Final Acceptance

Upon the completion of steps I through VII of Project Closure the T/LPA, upon obtaining NMDOT concurrence, shall provide a written determination of Physical Completion to the Contractor. The T/LPA shall not release retained amounts until Physical Completion and when the Contractor fully complies with all Contract requirements.

Until Physical Completion of the Project, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof, by the action of the elements or from other causes, whether arising from the execution or from the non-execution of the Work.

The T/LPA shall prepare an estimate summary to contractor which is used for the proposed final payment voucher. The proposed final payment voucher shall correct all prior Progress Payments. The T/LPA shall withhold from the proposed final payment voucher liquidated damages and overpayments. The Contractor shall sign, approve and return the T/LPA's duly certified final payment voucher. Upon receipt of a signed and approved final payment voucher the T/LPA shall Accept the Work and pay the balance due on the final payment voucher. The T/LPA paying the balance due on the final payment voucher constitutes Final Acceptance.

If the Contractor disputes the final payment voucher, then the Contractor shall submit the Notice of Intent to Claim form within seven (7) Days of receipt of the final payment voucher. The Contractor shall not change or modify the final payment voucher. If a clerical error on the final voucher is discovered the Contractor shall notify the Project Manager in writing before the 7 day expiration. If the Project Manger agrees that there is clerical error, the Project Manager will correct the error and reissue the final payment voucher. If the Project Manager does not agree the Project Manager shall notify the Contractor in writing and the Contractor shall have 7 Days of receipt to sign the final payment voucher or submit a Notice of Intent to Claim. If the Contractor submits a Notice of Intent to Claim form or the timeframe to submit the Notice of Intent to Claim form expires, the T/LPA shall Accept the undisputed Work, pay the undisputed balance unilaterally due on the final payment voucher. A Claim is forever barred if the Claim is not timely and properly submitted pursuant to Section 105.19, "Notice of Intent to Claim," within seven (7) Days of receipt of the T/LPA's proposed final payment voucher. The T/LPA paying the balance due on the final payment voucher constitutes Final Acceptance.

Upon Final Acceptance the T/LPA will complete its administrative process to close the Project.

109.10.9 T/LPA Requests for Reimbursement or Refund

The Contractor shall reimburse or refund the T/LPA for any overpayment in response to a request for refund of overpayment within 30 Days of the T/LPA's request. Failure by the Contractor to comply may subject the Contractor to default and to rejection of the Contractor's Bids in accordance with Section 102.5, "Rejection of Bids," until such time that Contractor complies with this Section.

109.11 COMPENSATION FOR CLAIMS

The Contractor is not entitled to late payment charges, including late payment charges pursuant to NMSA 1978, § 13-1-158, associated with any Claim or disputed construction services and Materials. The T/LPA will pay the Contractor late payment charges as authorized by NMSA 1978, § 13-1-158 for construction services and Materials not the subject of a disputed Claim. The T/LPA will pay the Contractor late payment charges on undisputed, qualified, Delayed Progress Payments for certified, approved and Accepted Work in accordance with Section 109.8, "Progress Payments," that are not the subject of a disputed Claim.

The Contractor is barred from seeking a Claim, a remedy, compensation, time, cause of action, or any damages except as provided by Section 105.19, "Notice of Intent to Claim," and Section 105.20, "Administrative Remedy," and this Section.

The Contractor shall not be entitled to any consequential, indirect, punitive, exemplary, special, or Incidental damages. When the T/LPA determines entitlement the Contractor shall only receive additional compensation and time as specifically provided by the following Sections of these Specifications: Section 104.2.1, "Significant Changes in the Character of the Work;" Section 104.2.2, "Differing Site Conditions;" Section 104.2, "Extra Work;" Section 107.10.3, "Cooperation with Owner of Railroad Right of Way;" Section 107.20, "Contractor's Responsibility to Protect the Work;" Section 108.6, "Determination and Extension of Contract Time;" Section 108.10, "Termination of Contract; No Fault of Contractor;" Section 109, "Measurement and Payment;" and this Section.

Except as otherwise agreed to by the Contractor and the T/LPA in a written Change Order, all Claims and causes of action arising out of the performance and administration of the Contract shall be governed by this Section including: Claims for Delay, Claims for additional compensation and time, Contract adjustment, Claims seeking extension of Contract Time, Claims seeking Delay damages, pass-through Subcontractor Claims, causes of action for breach of Contract, promissory estoppel, equitable estoppel, waiver, detrimental reliance, bad faith breach of contract, breach of the covenant of good faith and fair dealing, or any other cause of action arising out of the performance of the Work or the Contract. The compensation, time and damages provided for in this Section are exclusive, complete, and apply regardless of whether such Claims are to be resolved pursuant to the procedures set forth in Section 105.20, "Administrative Remedy," or any other legal or administrative procedure, whether or not authorized herein, including arbitration, mediation, or appeal.

109.11.1 Non Critical Disruption

Non-critical Disruption is a disruption or interference with Contractor's performance, regardless of cause, that does not negatively impact the Critical Path of the Project and therefore does not meet the definition of a Delay and for which the Contractor will not be entitled to receive Delay compensation per Section 109.11.2.2 nor time.

109.11.2 Delay

"Delay," in this Section, does not include time extensions granted by the T/LPA by Change Order in accordance with Section 108.6, "Determination and Extension of Contract Time," that do not result in any additional compensation.

The Contractor's entitlement to compensation and time for a Delay is defined, limited to, and provided as follows:

1. Excusable Delay: A Delay which is beyond the Contractor's control that negatively impacts the Critical Path of the Project and is not caused, by the Contractor's fault or negligence and for which compensation and/or a time extension may be granted, based upon the following:
    a. Excusable Compensable Delay: An excusable Delay that negatively impacts the Critical Path of the Project resulting from the neglect or default of the T/LPA or from a differing site conditions per the Section for differing site conditions. For such Delays, upon obtaining the approval of the District Engineer with concurrence from the CLE, the T/LPA may grant additional time and compensation. Examples of an excusable compensable Delay may include but are not limited to Delays attributable to design errors or a differing site condition not readily discovered through Pre-Bid Due Diligence, failure by the T/LPA to acquire Right of Way, and T/LPA-initiated design changes;
    b. Excusable Noncompensable Delay: An unforeseen and unanticipated excusable Delay not caused by the fault of either the Contractor or the T/LPA that negatively impacts the Critical Path of the Project. For such Delays, the Contractor may receive an extension of time but not additional compensation. Examples of a noncompensable Delay may include but are not limited to those events described in Section 107.20, "Contractor's Responsibility to Protect the Work."
2. Inexcusable Delay or nonexcusable Delay: A Delay for which the Contractor is not entitled to compensation and/or time that was caused by: factors within the Contractor's control; the fault or responsibility of the Contractor; factors that could or should have reasonably been foreseen by the Contractor; Delays caused by an event that the Contractor could have foreseen and prevented but failed to do so; or failure to reasonably mitigate additional Delay after an excusable Delay has been identified. Examples of inexcusable or nonexcusable Delays may include but are not limited to those attributable to reasonably expected seasonal inclement weather events based on historical data, reasonable time periods necessary for reviews of Shop Drawings by the

T/LPA, inefficient operation by the Contractor or Subcontractor, inefficient or ineffective construction management by the Contractor or Subcontractor, failure to assign sufficient resources to the Project by the Contractor or its Subcontractor, failure by the Contractor to properly perform Pre-Bid Due Diligence, or failure by the Contractor, Subcontractor or Supplier to procure Materials in a timely manner.

3. Concurrent Critical Delay: Concurrent Delay only occurs when the Project has two separate Critical Paths that have two separate Delays which start and end on the same date, Delaying the Project for the same amount of time. For Delays that start on the same date but are resolved at different dates the Contractor is not entitled to any time or additional compensation for the duration when a nonexcusable or inexcusable Delay occurs on either of the Critical Paths. When an excusable compensable Delay and excusable noncompensable Delay are concurrent as defined above the Contractor shall only be entitled to Contract Time and not any additional compensation.

109.11.2.1 Additional Time for Delay

The T/LPA may only add Contract Time for an excusable compensable Delay or an excusable noncompensable Delay using the Accepted updated monthly or revised schedules current and in effect at the time the Delay occurred. Additional Contract Time must be approved by the District Engineer with concurrence by the CLE.

109.11.2.2 Compensation for Delay

The T/LPA may only compensate the Contractor for an excusable, compensable Delay as provided in this Section and in the following order of priority and no other methods of calculating compensation will be Accepted. In order to receive compensation for a excusable compensable Delay the Contractor shall document and provide costs resulting from the excusable compensable Delay using actual cost records, shall measure and provide expenses using generally accepted accounting principles, and shall comply with Section 108.3.2, “Schedule Format,” and if an agreement about the extension of Contract Time cannot be reached then the Contractor shall comply with Section 108.6, “Determination and Extension of Contract Time.”

1. The T/LPA reserves the right to use innovative Bidding approaches, as specified in the Contract, including requiring Bidders to Bid a daily overhead rate (cost / Working Day) as a Bid Item Unit Price. For example the Contract may require that the Contractor escrow its Bid documents, and the escrow Bid Documents may be considered in resolving Claims.
2. The compensation which the Contractor may recover for a Delay Claim is limited to:
   a. Non-salaried labor expenses;
   b. Material costs;
   c. Equipment costs pursuant to Section 109.2, “Approved Equipment Rental Rates;”
   d. Costs of extended job site overhead, including bonds; or,
   e. An additional ten percent (10%) of the total of items 1, 2, 3, and 4 to cover home office overhead, salaried labor expenses, and profit.

3. If the source of the loss of productivity can be attributed to an excusable compensable Delay and cannot be isolated and priced separately, the method by which the T/LPA shall calculate the extent of an excusable compensable Delay caused by a production rate inefficiency shall be made in the following order of priority:
    a. Measured Mile analysis by which the T/LPA shall compare actual efficiency (production rates) in an impacted area to actual efficiency in a comparable non-impacted area; or
    b. Comparison of actual productivity to production rates in the Contractor's Baseline Schedule and timely submitted Acceptable updated monthly or revised schedules or in the escrow Bid Documents.

109.11.2.3 Non-Recoverable Damages

In no event shall the Contractor submit or be entitled to payment based on any of the following including but not limited to Eichleay formula, the Total Cost Method, original Contract period formula, fixed overhead formula, burden fluctuation method, and comparative absorption rates.

Regardless of the basis or cause of the Claim, the Contractor shall not recover and is not entitled to recover the following categories of damage:

1. Any compensation except as provided by Section 109.11.2.2, "Compensation for Delay;"
2. Loss of anticipated profit, incentives or bonuses;
3. Labor inefficiencies at the fault of the Contractor;
4. Home office overhead regardless of whether it is characterized as absorbed, unabsorbed, or extended exceeding that provided in Section 109.11.2.2, "Compensation for Delay;"
5. Any damages, costs or expenses that are indirect, special, Incidental or consequential, including, but not limited to, lost or impaired bonding capacity, loss of Bidding and contracting opportunities, loss of credit standing, cost of financing, interest paid, lost Material discounts, economic loss, loss of reputation, loss of other Work, loss of use, loss of business opportunity, loss of product or output, income, loss of profit or revenue, cost of capital, financing, and for loss of management or employee productivity or of the services of such persons, , and business devastation, bankruptcy, or insolvency. The T/LPA waives any entitlement to consequential damages from the Contractor but not general damages including but not limited to liquidated damages as provided in the Contract;
6. Acceleration costs and expenses. The Contractor shall only be entitled to acceleration costs and expenses if the T/LPA has expressly and specifically directed the Contractor in writing to accelerate the Work at the T/LPA's expense, the Contractor completes the Work within the time directed by the T/LPA, the Contractor actually incurs acceleration costs and expenses, and the Contractor provides verifiable documentation to support the acceleration costs and expenses;
7. Late payment charges, including late payment charges pursuant to NMSA 1978, § 13-1-158, associated with any Claim, or disputed construction services or Materials. The Contractor is also not entitled to late payment charges on any judgment or Award made to the Contractor. This provision does not affect the T/LPA's payment of late payment

charges on undisputed, qualified, Delayed Progress Payments for certified, approved and Accepted Work in accordance with Section 109.11, “Compensation for Claims,” that are not the subject of a disputed Claim;

8. Prejudgment or post-judgment interest related to or arising from any disputed Claim or on any Award made to the Contractor; or,
9. Attorneys’ fees and costs, Claim preparation expenses, and litigation or other costs related to or arising from any disputed Claim, or prosecution thereof.

October 3, 2022

SPECIAL PROVISIONS
CLARIFYING
SECTION 106.12: BUY AMERICA REQUIREMENTS

The following clarifies the 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction, Section 106.12 – "Buy America Requirements" requires the contractor to provide materials that comply with 23 CFR Part 635, including the Build America, Buy America Act or as may be amended by waiver or otherwise.

Contractor shall ensure through certification that all manufacturing processes for construction materials occur in the United States pursuant to the "Buy America," and "Build America, Buy America" Acts. If these certifications are not provided, the NMDOT may take any remedies available under the Contract.

Buy America Requirements are expanded to apply to construction materials, including articles, materials, or supplies that are or consist primarily of:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass;
- Lumber;
- And drywall.

Construction materials exclude cement and cementitious materials, aggregates including stone, sand, or gravel, or aggregate binding agents or additives.

Treat items that consist of two or more construction materials that have been combined together through a manufacturing process, and items that include at least one construction material combined with a material that is not listed through a manufacturing process, as manufactured products. Buy America preference does not apply to manufactured products.

Buy America preference applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to a project. It does not apply to tools, equipment, and supplies brought to the construction site and removed at or before the completion of the project. Buy America preference does not apply to equipment and furnishings that are used at or within the finished infrastructure project, but are not permanently affixed to the structure.

May 11, 2023

SPECIAL PROVISIONS
FOR
SECTION 106-A: BUILD AMERICA/BUY AMERICA PRODUCT INFORMATION SHEET

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

106-A.1 DESCRIPTION

The Contractor shall use the Build America/Buy America Product Information Sheet (BABA/BA Spreadsheet) provided by the Department to certify all construction Materials meeting the requirements as listed in the Special Provisions Clarifying Section 106.12, "Buy America Requirements". The Contractor shall download the BABA/BA Spreadsheet in Microsoft Excel format (.xlsx) from the NMDOT website at Construction Guidelines, Office Procedures, Materials & Material Testing Information | NMDOT, under Construction Project Office Forms.

Use of the BABA/BA Spreadsheet will be discussed during the Pre-Construction Conference.

Preparation of the BABA/BA Spreadsheet shall be Incidental to the Project.

106-A.2 MATERIALS

In addition to the requirements of Section 106.4, "Certificates of Compliance", the Contractor shall provide a completed BABA/BA Spreadsheet to the Project Office and receive Acceptance prior to installing any applicable Materials in accordance with Section 106.12, "Buy America Requirements".

The Contractor shall populate information in the BABA/BA Spreadsheet and submit to the Project Manager for Acceptance in conjunction with the Certificates of Compliance. The Contractor shall submit the Certificates of Compliance listed on the BABA/BA Spreadsheet in chronological order beginning with products place of origin through arrival on Project, with the tracing numbers, i.e., shipping invoice, bill of lading, etc. highlighted for easy reference. The use of the BABA/BA Spreadsheet does not eliminate the requirement for the Contractor to bear the burden of proof.

106-A.3 CONSTRUCTION REQUIREMENTS - Reserved

106-A.4 METHOD OF MEASUREMENT - Reserved

106-A.5 BASIS OF PAYMENT - Reserved

July 24, 2024

SPECIAL PROVISIONS
FOR
SECTION 109: ELECTRONIC TICKET DELIVERY SYSTEM

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

109.1 DESCRIPTION

The New Mexico Department of Transportation will support the Contractor's voluntary use of an Electronic Ticket Delivery System (e-Ticketing system) to monitor, track and report loads for certified weights of asphalt mixtures, in accordance with Section 416, "Minor Paving", Section 423, "Hot Mix Asphalt (HMA) (Major Paving) and Section 424, "Warm-Mix Asphalt (WMA) (Major Paving), from the asphalt point of measurement to the point of incorporation into the Project.

The Contractor shall provide all hardware, and internet access for the plant. The Contractor shall provide and utilize a fleet track system that allows for the integration of data into HaulHub for approval by the Department.

The e-Ticketing system Equipment and software requirement will be discussed during the Pre-Construction Conference and again during the Pre-Pave Conference.

109.2 MATERIALS

The Contractor shall provide certified weighmaster electronic tickets (e-Tickets) for each load of asphalt mixtures that are delivered to the Project.

109.3 CONSTRUCTION REQUIREMENTS

The Contractor shall automatically generate e-Tickets using a software-based e-Ticketing system. The Contractor shall fully integrate the e-Ticketing system with the load-out scale system used to weigh the mixture being delivered. Immediately after each truck is loaded and weighed, the Contractor shall upload the information to the web-based HaulHub application so the e-Tickets can be accessed by the Project Manager and the Inspector. The Contractor shall place easily visible truck/trailer identification numbers on the driver's side and the passenger or rear sides of the delivery vehicles matching those listed on each e-Ticket. Delivery vehicles without identifying vehicle numbers will result in the rejection of loads.

The Contractor shall provide a reliable, stable internet connection to support e-Ticketing at the Material source and delivery locations. In the event of a power loss, unstable internet connection or inability to save electronic data, the generation of paper tickets will be required. The Contractor shall perform a test to confirm that ticketing data can be uploaded to the web-based system.

The Contractor shall use an e-Ticketing system that allows for individual certified e-Tickets and generates daily summary sheets that can be exported as PDF and XML files by the Department. The Contractor shall use an e-Ticketing system that does not allow data inputs from scales to be altered by either the Contractor

or the Department. The Contractor shall use an e-Ticketing system that allows the Department to make notes on each e-Ticket for documentation of tests, comments or rejection of loads.

At the end of each asphalt paving placement Day's operation (shift), the Contractor shall generate a shift summary sheet of the e-Tickets and make available for the Project Manager within 24 hours of the shift ending. The Contractor shall provide an e-Tickets shift summary sheet that lists the required information in a tabular form and is signed by a certified public weighmaster. At a minimum, the Contractor shall use an e-Ticketing system that includes the following information on each e-Ticket:

1. CN;
2. Date;
3. Ticket number;
4. Ticket time;
5. Truck/trailer unit number;
6. Gross weight;
7. Tare weight;
8. Net weight;
9. Material type;
10. Certified weighmaster's name;
11. Signature of weighmaster;
12. Whether the driver was on or off the scale during weighing; and
13. Use a mobile application that:
    - 13.1 Provides a means for the Inspector to receive or reject each e-Ticket;
    - 13.2 Generates a time stamp and electronic signature at the time of receipt or rejection by the Inspector; and
    - 13.3 Provides for each e-Ticket a means for the Inspector to add remarks, record any road waste quantity, record temperatures, add photos, and edit the remarks and road waste quantity after the truck load has been received or rejected.

Loads which do not have the required information will be rejected.

109.4 METHOD OF MEASUREMENT – Reserved

109.5 BASIS OF PAYMENT

Payment for the Electronic Ticket Delivery System will be incorporated by Change Order and will be paid for actual costs incurred. The Contractor shall provide the Project Manager with a detailed cost breakdown including receipts and invoices of actual costs incurred.

109.5.1 Work Included in Payment

The Department will consider the following Work as included in the payment for the Electronic Ticket Delivery System and no separate payment will be made:

1. Set-up and maintenance;
2. All hardware including wiring;
3. Quality Control procedures;
4. Transfer of data from Contractor selected fleet tracking system to HaulHub; and
5. Internet access for the plant.

February 8, 2021

SPECIAL PROVISIONS
MODIFYING

SECTIONS:

511: CONCRETE STRUCTURES
532: PENETRATING WATER REPELLENT TREATMENT
533: CONCRETE STRUCTURE REPAIR
606: METAL BARRIER, CABLE BARRIER AND CONCRETE WALL BARRIER

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete reference to **Class 4, Special Surface Treatment.** The Contractor shall meet **Coating of Concrete System** requirements for the following subsections:

Section 511.3.9.2 Class 1, Ordinary Surface Finish
Section 511.3.9.3 Class 2, Rubbed Surface Finish
Section 511.3.9.5 Class 4, Special Surface Finish
Section 511.3.10.2 Method 2, Curing Compound

Section 532.2 Materials
Section 532.3.2.3 Application

Section 533.3.4 Furnishing, Placing, Curing and Finishing Concrete Structure Repair Material
Section 533.4 Method of Measurement

Section 606.3.3.1 Concrete Wall Barrier and Temporary Concrete Wall Barrier Fabrication

March 4, 2020

SPECIAL PROVISIONS
MODIFYING

SECTIONS:

606: METAL BARRIER, CABLE BARRIER AND CONCRETE WALL BARRIER
701: TRAFFIC SIGNS AND SIGN STRUCTURES
703: TRAFFIC MARKERS
720: VEHICULAR IMPACT ATTENUATOR UNITS and SAND BARREL IMPACT ATTENUATOR UNITS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete reference to **NCHRP Report 350.** The Contractor shall meet **AASHTO Manual for Assessing Safety Hardware (MASH)** requirements for the following subsections:

606.2.1.3.2	**Structural Shape Posts**
606.2.2.2	**Submittal**
606.2.2.4	**Materials**
606.2.4	**End Treatments**
701.2.6	**Sign Structures and Hardware**
703.1	**DESCRIPTION**
720.2	**MATERIALS**

August 8, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 303: BASE COURSE

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 303: BASE COURSE** in its entirety and replace with the following:

303.1 DESCRIPTION
This Work consists of providing, hauling, and placing Base Course.

303.1.1 Stockpiling
This Work consists of providing, hauling, and stockpiling Base Course at specified locations.

303.1.2 Removing, Processing, and Placing Base Course
This Work consists of removing, hauling, processing, placing existing Base Course Material.

303.2 MATERIALS

303.2.1 General
Base Course consists of one (1) or more of the following:

1. Crushed stone;
2. Crushed or screened gravel;
3. Caliche;
4. Sand;
5. Recycled Asphalt Pavement (RAP) not to exceed 50%; recycled concrete pavement (RC) not to exceed 75%; and the combined RAP and RC not to exceed 75% by weight; and
6. Processed glass aggregate.

Base Course shall not contain organic matter or other Deleterious Materials, including silt and clay balls.

The Department will allow a maximum of ten percent (10%) (by weight) processed glass aggregate, uniformly distributed, in composite Base Course. Processed glass aggregate shall meet physical properties and deleterious substance requirements in accordance with AASHTO M 318.

303.2.2 Aggregate Acceptance
The Department will accept Base Course based on random samples taken by the Department from the Roadway. Unless the Contract specifies otherwise, the Contractor shall produce Material in proportions that produce a homogeneous composite blend in accordance with Table 303.2.2:1, “Type I Base Course Gradation Band”.

Table 303.2.2:1
Type I Base Course Gradation Band

Sieve size	% passing
1.0 inch	100
¾ inch	80-100
No. 4	30-60
No. 10	20-45
No. 200	3.0-10.0

Table 303.2.2:2
Type II Base Course Gradation Band

Sieve size	% passing
1.0 inch	100
¾ inch	85-95
No. 4	40-70
No. 10	30-55
No. 200	6.0-15.0

Table 303.2.2:3
Base Course Physical Properties – Type I and Type II

Property	Specification Limit
Fractured Face[a]	Minimum 50% on Untreated Material
AI[b]	Maximum 35
LL	Maximum 25
PI	Maximum 6

[a]Materials retained on or above the No. 4 sieve shall have at least two (2) Fractured Faces when evaluated in accordance with AASHTO T-335, "Determining the Percentage of Fractured Faces in Coarse Aggregate."

[b]Maximum AI of 35 for untreated natural aggregate source when calculated in accordance with Section 910, "Aggregate Index".

303.3 CONSTRUCTION REQUIREMENTS

303.3.1 Subgrade

The Contractor shall place Base Course on subgrade prepared in accordance with Section 207, "Subgrade Preparation".

303.3.2 Mixing and Placing

The Contractor shall:

1. Place maximum six (6) inch (compacted) lifts, unless specified otherwise;
2. Not place Base Course Material on frozen Subgrade; and
3. Compact Base Course to at least 96% of maximum density as determined by AASHTO T 180 (Modified Proctor), Method D (TTCP Modified).

The Department will use nuclear testing methods to determine in-place densities in accordance with

AASHTO T 310 and TTCP procedures for wet density moisture correction.

303.3.3 Surface Tolerance

The surface tolerance shall not exceed ½ inch within ten (10) feet as verified by the Department. All deviations greater than ½ inch shall be corrected by the Contractor and reverified by the Department.

303.3.4 Plan Base Course and Sub-base Depths

The Department will monitor and record Base Course depth during the placement in accordance with Section 906, “Minimum Testing Requirements”. If the placed thickness deviates from the requirements by more than minus ½ inch, the Contractor shall add Material and reprocess to correct the deficiency.

303.3.5 Stockpiled Base Course

The Contractor shall stockpile Base Course Material at locations shown on the Plans and prevent segregation of Materials at each stockpile. The Contractor shall maintain each stockpile in accordance with the following requirements:

1. Place stockpiles upon prepared sites;
2. Make stockpiles neat and regular to prevent segregation;
3. Provide enough storage space for each size of aggregate;
4. Prevent contamination (store stockpiles away from vehicular and Equipment traffic);
5. Keep the storage site neat and orderly and keep the stockpiles accessible for sampling; and
6. Acceptance by the Department will be at the final stockpile location.

303.3.6 Removing and Processing Existing Base Course

The Contractor shall:

1. Minimize contamination of Base Course Material when removing it from the Roadway for reuse, and;
2. Meet the requirements as indicated in Section 303.3.2, “Mixing and Placing”.

303.3.7 Sampling and Testing

The Contractor and Department shall sample and test the Base Course in accordance with Section 906, “Minimum Testing Requirements”. Department personnel may test locations other than the random locations generated for statistical analysis. These tests will not be used for pay factor determination, but may be used to determine Acceptance or rejection of localized Material.

303.3.7.1 Contractor Quality Control

The Contractor shall develop and administer a Quality Control plan that ensures the product meets the requirements in accordance with Section 902, "Quality Control”. The Contractor shall ensure that the Quality Control plan addresses the following elements:

1. Contractor management and process control personnel;
2. Testing Equipment and Laboratory facilities;
3. Aggregate production;
4. Aggregate quality;
5. Stockpile management;
6. Proportioning;
7. Mixing and processing;
8. Transporting;
9. Placing and spreading;
10. Compaction;
11. Line and grade control; and

12. Criteria for the correction or rejection of unsatisfactory Materials.

The Contractor shall:

1. Provide copies of TTCP wallet cards or certifications for personnel who are responsible for sampling and testing the Base Course;
2. Update the list as required if personnel substitutions are made; and
3. Use test results, inspections, and other Quality Control practices to assure the quality of each Material source and to control processes for crushing, mixing, proportioning, processing, transporting, placing, spreading, and compacting quality.

303.3.8 Acceptance

The Department will accept Base Course Materials based on samples taken in accordance with the Section 906, "Minimum Testing Requirements" after placement but before compaction. Acceptance will be in accordance with Section 303.2.2, "Aggregate Acceptance" and Section 303.3, "Construction Requirements". If necessary, the Contractor shall re-work the Base Course until all requirements are met at no additional expense to the Department.

303.4 METHOD OF MEASUREMENT

When calculating the square yardage the Department will use the average Base Course width and the station-to-station length along the centerline. The dimensions will show on the typical section of the Plans. When calculating the weight of the Material, the Department will deduct the weight of moisture that exceeds the optimum moisture content plus two percent (2%). No additional payment shall be made for the stockpile pad.

303.5 BASIS OF PAYMENT

The Department will pay for the Accepted quantities of Base Course as determined in Section 303.3.8, "Acceptance".

Pay Item	Pay Unit
Base Course	Cubic Yard or Ton
Base Course _____inch Depth	Square Yard
Remove, Process and Place Base Course	Square Yard or Ton
Stockpiled Base Course	Cubic Yard or Ton

303.5.1 Work Included in Payment

The Department will consider as included in the payment for the pay item(s) listed in this section and will not measure or pay separately for the following Work:

1. Providing, hauling, placing, and compacting Base Course Material;
2. Stockpiling, if required by Contract;
3. Quality Control in accordance with Section 902, "Quality Control"; and
4. Remove, process, and place Base Course, if required by the Contract.

August 8, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 402: ASPHALT MATERIALS AND MINERAL ADMIXTURES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 402.2.1.6 Acceptance** in its entirety and replace with the following:
The Department will Accept asphalt cement in accordance with the Department's Standard Practice for Certifying Suppliers of Performance-Graded Binders and in accordance with Section 402.2.1.1, "Performance-Graded Asphalt Binder (PGAB)".

Table 402.2.1.6:1
Pay Adjustment Factor[1]
Based on Binder Test Results

Binder Property	Measured Value	Pay Factor Applied
DSR on Original Binder G*/sinδ (kPa) Min. 1.00 kPa	<1.00-0.98 <0.98-0.96 <0.96-0.94 <0.94-0.90 <0.90	0.98 0.95 0.92 0.85 0.75 or Removal[2]
DSR on RTFO Aged Material G*/sinδ (kPa) Min. 2.20 kPa	<2.20-2.15 <2.15-2.09 <2.09-2.02 <2.02-2.00 <2.00	0.98 0.95 0.92 0.85 0.75 or Removal[2]
DSR on PAV Aged Material with δ < 42° G*sinδ (kPa) Max. 5000 kPa	>5000-5100 >5100-5250 >5250-5400 >5400-5600 >5600	0.98 0.95 0.92 0.85 0.75 or Removal[2]
DSR on PAV Aged Material with δ ≥ 42° G*sinδ (kPa) Max. 6000 kPa	>6000-6100 >6100-6250 >6250-6400 >6400-6600 >6600	0.98 0.95 0.92 0.85 0.75 or Removal[2]
BBR Slope value (m) of PAV Aged Binder Min 0.300	<0.300-0.298 <0.298-0.293 <0.293-0.290 <0.290-0.285 <0.285	0.98 0.95 0.92 0.85 0.75 or Removal[2]

Binder Property	Measured Value	Pay Factor Applied
BBR Stiffness of PAV Aged Binder S (MPa	>300-306 >306-315 >315-324 >324-330 >330	0.98 0.95 0.92 0.85 0.75 or Removal[2]
% Elastic Recovery on RTFO Aged Material[3] Min 65%	<65-60 <60	0.95 0.75 or Removal[2]
[1]Price Reduction will be applied to Contactor's invoice price of asphalt binder. [2]The Assistant District Engineer - Construction will determine if the non-compliant HMA Material will be removed. Removal and replacement will be at no additional cost to the department. If the non-compliant Material is Accepted, a price reduction factor of 0.75 will apply. [3]Elastic-Recovery is only applicable to PG+ and PGR+ Binders.		

Delete **Section 402.2.3.2: Anhydrite Based Material** in its entirety and replace with the following:
The Supplier shall provide anhydrite based Material in accordance with Tables 402.2.3.2:1, "Anhydrite Based Material Chemical Composition" and Table 402.2.3.2:2, "Anhydrite Based Material Physical Properties." The Contractor shall use ASTM C 114 for the chemical analysis.

Table 402.2.3.2:1
Anhydrite Based Material Chemical Composition

Chemical Compound	Percent by Weight
SiO_2	8.0 to 12.0
Al_2O_3	1.8 to 3.8
Fe_2,O_3	1.2 to 1.6
MgO	1.0 to 2.0
CaO	45.0 to 55.0
SO_3	26.0 to 36.0

Table 402.2.3.2:2
Anhydrite Based Material Physical Properties

Property	Range
LOI, %	4.0 to 6.0
Passing #200 Sieve, %	98.8 to 100.0
Passing #325 Sieve, %	95.0 to 98.2
Specific Gravity	2.970 to 3.050

July 26, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 405: DETOUR PAVEMENTS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 405: DETOUR PAVEMENTS** in its entirety and replace with the following:

405.1 DESCRIPTION
This Work consists of the following:

1. Providing and placing surfacing Materials, including Subgrade Preparation, Base Course, Prime Coat, Tack Coat and HMA/WMA as required in accordance with the Plans;
2. Maintaining, removing, hauling, and disposing of Detour pavements in an environmentally Acceptable manner; and
3. Hauling and stockpiling salvageable Detour pavements as directed by the Project Manager.

Embankment, drainage, and major Structures will conform to their applicable Sections.

405.2 MATERIALS

405.2.1 General
The Contractor shall obtain surfacing Material for the Detour construction from a suitable source in accordance with Section 106, “Control of Materials”.

405.2.2 Alternate Pavement Section
Two (2) weeks before constructing the Detour, the Contractor may submit an alternative Detour pavement section proposal to the Project Manager for approval. The proposal shall include the surfacing thickness and the types of Materials.

The approved alternate Detour pavement section must have at least the same structural number specified in the Contract.

The Contractor shall determine the structural number in accordance with the values in Table 405.2.2:1, “Structural Coefficients”.

Table 405.2.2:1
Structural Coefficients

Description	Structural coefficient
Base Course	0.11
Hot-mix asphalt (HMA)	0.44
Cold-mixed asphalt pavement[a]	0.15

[a]The Contractor may use cold-mixed asphalt pavement in low-traffic areas, with the District Construction Engineer’s written approval.

Detour pavements that will be removed do not require an approved asphalt mix design.

405.3 CONSTRUCTION REQUIREMENTS

405.3.1 General

The Contractor shall construct the Detour pavement in accordance with the following applicable Specifications:

1. Section 207, “Subgrade Preparation”;
2. Section 303, “Base Course”;
3. Section 407, “Tack Coat”;
4. Section 408, “Prime Coat”;
5. Section 416, “Minor Paving”;
6. Section 423, “Hot Mix Asphalt (HMA) (Major Paving)”; and
7. Section 424, “Warm Mix Asphalt (WMA) (Major Paving)”.

405.3.2 Contractor Testing/Design Requirements

The Contractor shall provide Subgrade R-values for the top two (2) ft of the Detour Subgrade by using AASHTO T-190.

405.3.3 Maintenance of Detour Section

The Contractor shall:

1. Ensure the maintenance and repair of the Detours minimizes the impact to the traveling public; and
2. Maintain safe traffic flow during construction.

If the Project Manager determines that the Detour surfacing is damaged, the Contractor shall correct the problem immediately. If the Project Manager determines that the corrective actions failed, overlay the Detour with additional HMA at no additional cost to the Department.

If the Contractor does not immediately fix the Detour surfacing as directed by the Project Manager, the Department will assess damages in accordance with the following Table 405.3.3:1, “Schedule of Damages”, for each Day that the Detour remains unacceptable to the Project Manager.

Table 405.3.3:1
Schedule of Damages

Total Original Contract Amount ($)	Charge ($) per Day
≤100,000	500
>100,000-500,000	1,000
>500,000-1,000,000	1,500
>1,000,000-2,000,000	2,000
>2,000,000-4,000,000	2,500
>4,000,000-7,000,000	3,000
>7,000,000-10,000,000	4,000
>10,000,000	5,000

405.3.4 Removal of Detours

When removing the Detour, the Contractor shall dispose of the surfacing Material in an environmentally Acceptable manner, or salvage the Material as shown in the Contract.

The salvage of the Detour pavement Material includes hauling and stockpiling.

405.4 METHOD OF MEASUREMENT

The Department will measure the Detour Pavement Construction placed and maintained on the top width and length of the Detour.

405.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Detour Pavement Construction	Square Yard

405.5.1 Work Included in Payment

The following Work or items will be considered as included in the payment for Detour Pavement Construction and will not be measured or paid for separately:

1. Submittals;
2. Furnishing and placement of Subgrade Preparation, Base Course, Prime Coat, Tack Coat and HMA/WMA on Detours;
3. Testing (includes AASHTO T190);
4. Maintenance of Detours;
5. Removal of Detour Materials including surfacing, earthwork, and drainage Structures; and
6. Hauling and stockpiling of salvageable Materials.

January 2, 2025

SPECIAL PROVISIONS
MODIFYING
SECTION 407: TACK COAT

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 407.2 MATERIALS:**

407.2.1 Tack Coat Additive – For Cationic Emulsion Only
A cationic organosilane additive with a minimum nonvolatile content of 38 percent is to be used in accordance with ASTM D5095.

1. Use a dosage from 0.7 to 1.0 percent by weight of emulsion, according to manufacturer's specification.

January 2, 2025

SPECIAL PROVISIONS
MODIFYING
SECTION 408: PRIME COAT

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 408.2 MATERIALS:**

408.2.1 Prime Coat Additive – For Cationic Emulsion Only
A cationic organosilane additive with a minimum nonvolatile content of 38 percent is to be used in accordance with ASTM D5095.

1. Use a dosage from 0.7 to 1.0 percent by weight of emulsion, according to manufacturer's specification.

January 21, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 416: MINOR PAVING

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 416: MINOR PAVING** in its entirety and replace with the following:

416.1 DESCRIPTION
This Work consists of constructing one (1) or more pavement courses of Hot Mix Asphalt (HMA) or Warm Mix Asphalt (WMA) on a prepared subgrade, aggregate base course or milled surface.

416.2 MATERIALS
The Contractor shall use Materials for Minor Paving in accordance with Section 423.2, “Materials”.

Minor Paving shall be classified as one of the following:

1. Minor Paving Type I. Consists of Minor Paving that can be placed within the Roadway Prism that is of sufficient size or area to reasonably allow the Material to be placed with Equipment in accordance with Sections 423.3.4.3, “Pavers” and 423.3.4.4, “Compaction Equipment”.

   Minor Paving Type I includes the following:
   1.1 Mainline paving;
   1.2 Auxiliary lanes;
   1.3 Holding lanes; and
   1.4 Shoulders.

2. Minor Paving Type II. Consists of Minor Paving placed outside the Roadway Prism or in areas within the Roadway Prism that would not allow for the Material to be placed with Equipment in accordance with Sections 423.3.4.3, “Pavers” and 423.3.4.4, “Compaction Equipment”.

   Examples of Minor Paving Type II include the following:
   2.1 Driveways;
   2.2 Turnouts;
   2.3 Official use crossings;
   2.4 Widenings less than ten (10) feet in width;
   2.5 Utility crossings;
   2.6 ADA Improvements; and
   2.7 All other items not listed in Minor Paving Type I.

416.3 CONSTRUCTION REQUIREMENTS
The Contractor shall perform Minor Paving in accordance with the following 423 Sections or the correlating 424 Sections:

1. Section 423.3.1 or Section 424.3.1, “General”;
2. Section 423.3.2 or Section 424.3.2, “Mix and Laydown Temperature Requirements” or “Mix Temperature Requirements”, respectively;
3. Section 423.3.3 or Section 424.3.3, “Addition of Mineral Admixtures”;
4. Section 423.3.4 or Section 424.3.4, “Equipment”; and
5. Section 423.3.5 or Section 424.3.5, “Placement Operations” excluding 423.3.5.7, “Test Strip & Shakedown Period”.

No referee testing will be required for Minor Paving, but may be used if both parties agree in writing at the Pre-Pave Conference. If used, referee testing will be done in accordance with Section 423.3.7, “Dispute Resolution” or Section 424.3.7, “Dispute Resolution”.

416.3.1 Sampling and Testing

416.3.1.1 Contractor Quality Control
The Contractor shall provide quality control measures in accordance with Section 902, “Quality Control”.

The Contractor shall identify the proposed lot size in the Quality Control Plan for approval by the Project Manager.

416.3.1.2 Department Quality Assurance
The Department will provide quality assurance measures in accordance with Section 905, “Quality Assurance for Minor Paving”.

416.3.1.2.1 Acceptance
The Department will Accept Materials in accordance with Section 905.1.3., “Acceptance”.

416.3.1.3 Independent Assurance Testing
The Department will perform Independent Assurance sampling and testing in accordance with Section 906, “Minimum Testing Requirements (MTR’s)”.

416.4 METHOD OF MEASUREMENT
If the Department measures by the square yard, the Department will measure Minor Paving using the dimensions shown in the Contract or approved field measurements.

416.5 BASIS OF PAYMENT
The Department will adjust payment for Minor Paving in accordance with Section 905, “Quality Assurance for Minor Paving”.

Pay Item	Pay Unit
Minor Paving Type I, HMA SP	Ton or Square Yard
Minor Paving Type II, HMA SP	Ton or Square Yard
Minor Paving Type I, WMA SP	Ton or Square Yard
Minor Paving Type II, WMA SP	Ton or Square Yard

416.5.1 Price Adjustments

The Department will pay for Accepted quantities of Minor Paving at the Bid Item Unit Price, adjusted in accordance with Section 905.1.4, “Pay Factor Determination”.

416.5.2 Work Included in Payment

The Department will consider as included in the payment for the pay item(s) listed in this section and will not measure or pay separately for the following Work:

1. Asphalt binder, anti-strip, aggregate, blending sand, mineral filler, mineral admixture, and WMA additive or process as appropriate;
2. Mixing, hauling, placement, and compaction of HMA or WMA;
3. Providing Mix Design in accordance with Section 423.2.8 or Section 424.2.8, “Mix Design”;
4. Quality Control in accordance with Section 902, “Quality Control;”
5. Providing and transporting all cores; and
6. Providing storage container for samples and cores if referee testing is used.

May 28, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 423: HOT MIX ASPHALT (HMA) (MAJOR PAVING)

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 423.2.7: Reclaimed Asphalt Pavement (RAP)** in its entirety and replace with the following:

Unless otherwise specified in the Contract, the Contractor may use RAP removed under the Contract consisting of salvaged, milled, pulverized, broken, or crushed asphalt pavement. The Contractor may use RAP produced from outside sources provided the following is met: after the Contractor obtains sufficient quantities of RAP aggregate samples in accordance with AASHTO T 308; the Department will Accept RAP for which the coarse aggregate has a percent wear of 40.0 or less, at 500 revolutions, when tested in accordance with AASHTO T 96. The Contractor shall provide plus No. 4 RAP Material with a minimum of 75% Fractured Faces content (one (1) face). The Department will make no additional payment for the asphalt binder in the RAP or asphalt binder due to asphalt binder grade adjustment.

In the event the Contractor elects to use up to 15% RAP (by weight) or is specified as a maximum of 15% RAP by the Contract (by weight) in the production of HMA mixtures, the Contractor shall use the PG grade asphalt binder specified in the Contract.

For quantities greater than 15% and up to 25% RAP, the Contractor shall:

1. Either lower the asphalt binder's high and low temperature grades by one (1) grade (e.g. lower a PG 76-22 to a PG 70-28); or
2. Extract, recover, and combine the RAP's asphalt binder with a virgin asphalt binder per AASHTO M 323, Appendix A, ensuring the resultant binder meets the entire AASHTO M 320 (excluding direct tension) required Project PG asphalt binder properties indicated on the approved mix design.

For quantities greater than 25% and up to 35% RAP, the Contractor shall:

1. Extract, recover, and combine the RAP's asphalt binder with a virgin asphalt binder per AASHTO M 323, Appendix A; and
2. Ensure the resultant binder meets the entire AASHTO M 320 (excluding direct tension) required Project PG asphalt binder properties indicated on the approved mix design.

The Department will not allow the Contractor to use more than 35% RAP in the production of HMA mixtures.

For Projects of entirely new construction, the Contractor shall:

1. Limit the RAP to 15% in the top mat or extract, recover and combine the RAP's asphalt binder with a virgin asphalt binder per AASHTO M323, Appendix A; and
2. Ensure the resultant binder meets the entire AASHTO M320 (excluding direct tension) required Project PG asphalt binder properties indicated on the approved mix design.

If Plus Grades of PG asphalt binder is specified on the project, for quantities greater than 15% RAP, the Contractor shall extract, recover, and combine the RAP's asphalt binder with a virgin asphalt binder per AASHTO M 323, Appendix A. The Contactor shall ensure the resultant binder meets the entire AASHTO M 320 required Project PG asphalt binder properties indicated on the approved mix design including the additional Plus Grade requirements for Elastic Recovery and Solubility.

The Contractor shall:

1. Process RAP so that 100% passes a 1-1/2-inch sieve;
2. Maintain adequate stockpile management (i.e. sufficient quantities and shaping of the stockpiles);
3. Address in the Quality Control Plan how RAP will be controlled, such as which screen will be used to split into two (2) stockpiles, or by what method the RAP will be controlled to keep the resultant mix within Acceptable limits;
4. Account for the weight of the binder in the RAP when batching aggregates;
5. Provide RAP that is free of Deleterious Materials; and
6. Perform process control testing in accordance with Section 902, "Quality Control" requirements as RAP is produced and prepared for inclusion in the HMA.

If problems with HMA consistency or compliance with Project Specifications occur, additional efforts taken to achieve Acceptable levels of consistency and compliance with Contract Specifications, at the Contractor's discretion (at no additional cost to the Department), include, but are not limited to:

1. Reduce the top size of the RAP from 1-1/2 inch to one (1) inch;
2. Fractionate the aggregates on a second screen, such as the 3/8 inch or ¼ inch Screen so that the RAP is maintained in three (3) stockpiles, one being RAP larger than 1-1/2 inch to two (2) inches, Coarse RAP and the third being Fine RAP;
3. Ensure that the RAP used in the HMA mix design is representative of the RAP available on the Project;
4. Cover the RAP pile(s) so that ambient moisture is not absorbed; and
5. Process and maintain the stockpiles so that the RAP Material is equally and uniformly distributed throughout the entire stockpile(s) and is withdrawn such that uniform, non-segregated RAP is delivered to the hoppers.

July 13, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 452: SEALING AND RESEALING CONCRETE PAVEMENT JOINTS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 452.4: Method Of Measurement** and replace with the following:

Resealing concrete pavement joints will be measured by the linear foot.

Delete **Section 452.5: Basis of Payment** and replace with the following**:**

Pay Item	**Pay Unit**
Resealing Concrete Pavement Joints	Linear Foot

Delete **Section 452.5.1 Work Included in Payment** and replace with the following:

The Department will consider as included in the payment for the pay item(s) listed in this section and will not measure or pay separately for the following Work:

1. Removing joint sealant, sawing, cleaning, priming, and resealing joints; and
2. Provide sealant Material.

April 6, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 501: DRIVEN PILES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 501.2.3.1 Pile Driving Equipment Submittals** in its entirety and replace with the following:

The Contractor shall submit pile driving Equipment information to the Project Manager 30 Days before beginning pile driving. The Contractor shall submit the information on the Department's Pile and Driving Equipment Data Form. The Contractor shall provide information required on the form including the following:

1. Pile hammer make, model number, and serial number;
2. Driving head assembly, type, model number, and weight;
3. Hammer cushion, Material, size, and thickness;
4. Pile cushion, Material, size, and thickness;
5. Predrilling Equipment, if applicable; and
6. Blow Counting Device Energy Saximeter (E-Sax) or equivalent product Specifications and operating instructions.

The Department has fourteen (14) Days to Accept or reject the proposed pile driving Equipment after the Project Manager receives the Pile and Driving Equipment Data Form submittal. Acceptance will be in accordance with Section 501.3.1.4, "Approval of Driving System."

If the Department rejects the Equipment, the Contractor shall modify or replace the pile driving Equipment and revise and resubmit the form. The Department will have fourteen (14) Days to Accept or reject the revised Pile and Equipment Data Form.

The Contractor shall submit the manufacturer's chart showing stroke and blows per minute when proposing the use of open-end (single-acting) diesel hammers.

The Contractor shall submit a chart equating bounce chamber pressure and hose length to either equivalent energy or stroke when proposing use of closed-end (double-acting) diesel hammers. The Contractor shall specify hose lengths for closed-end hammers. The Contractor shall calibrate the chart to atmospheric pressure based on the Project site elevation to the nearest 1,500 foot elevation.

The Contractor shall submit a chart equating the plant operating pressure to the equivalent delivered energy of the hammer, including losses in the hose, when proposing the use of double acting or differential acting air/steam hammers. The Contractor shall calibrate the chart to atmospheric pressure based on the Project site elevation to the nearest 1,500 foot elevation.

The Contractor shall submit a certificate of calibration to the Project Manager for the pressure gauge required for double acting hammers or for delivered energy for hydraulic hammers. The Contractor shall provide

certificate of calibration from a National Institute of Standards and Technology traceable Laboratory performed no more than six (6) months before use.

Add the following to Section **501.3.2.2: Driving Apparatus:**

501.3.2.2.9 Blow Counting Device

The Contractor shall provide the Project construction office with an E-Sax or equivalent for each piling Project where piles will be driven and blow counts will be recorded. The E-Sax or equivalent shall document the installation process of each pile to assure that the pile driving criterion is met. The Contractor shall assist the Project Manager with operating the device and downloading all pile driving records at the end of each Day of pile driving. The records shall be downloaded to a computer for further review and permanent storage and a copy shall be transmitted to the State Geotechnical Engineer

The E-Sax or equivalent shall be a small hand held device. It shall numerically display all information gathered by a blow detection system (built-in microphone). The device shall have an easy-to-read digital screen clearly readable in daylight, and display four lines of text and 16 characters per line. The device shall display acquired data in real time, and shall store data electronically for transmission and permanent storage. The E-Sax or equivalent shall have a minimum of 8 MB of memory, equivalent to 21,500 lines of data, available for storage and download at a later time. Blow count per unit of penetration shall be obtained by the operator pressing a key for each unit penetration, or with optional depth sensor. Battery life shall be at least 16 hours.

The E-Sax shall be made available to the Project Manger prior to the Pre Pile Driving Conference and shall be maintained during the installation of all test and production piles. In the event that the device is not operational, the Contractor shall notify and work with the manufacturer to rectify the situation. The E-Sax shall remain the property of the Contractor at the conclusion of construction.

Delete **Section 501.3.4.4 Conditions to Proceed** in its entirety and replace with the following:

The Contractor shall not drive production piles until it meets the following conditions:

1. The State Geotechnical Engineer approves the driving system in accordance with Standard Specifications Section 501.3.2.4, “Approval of Driving System;”
2. The Inspector completes the Pile Driving Field Inspection Form and the form is then approved by the Project Manager;
3. The Contractor shall mark the piles in 1-foot increments beginning at the pile toe and continuing at the pile head. The cumulative distance from the pile toe shall be marked on the pile at 5-foot intervals from the pile toe. If necessary, the Contractor shall add inch marks between the 1-foot markers over a 10-foot length of pile as directed by the Project Manager.
4. All required load testing is complete as specified and in accordance with Standard Specifications Section 504, “Load Testing of Bearing Piles”. The Project Manager may approve driving production piles in a foundation element upon satisfactory completion of a load test prior to completion of remaining load tests;
5. The Pile Driving Acceptance Chart is completed and stamped with New Mexico P.E. seal by the State Geotechnical Engineer and approved by the State Geotechnical Engineer and submitted to the Project Manager;
6. The hammer and leads are aligned with the pile plan in vertical or battered position;

7. An E-Sax or equivalent has been made available to the Project Manager for use during pile driving operations and all necessary training has been conducted; and
8. The Inspector is present before beginning operations.

Delete **Section 501.3.5.1 Variations Due to Dynamic Testing** in its entirety and replace with the following:

The State Geotechnical Engineer will reject the hammer if the hammer is unable to transfer sufficient energy to perform the dynamic testing in accordance with Standard Specifications Section 504, "Load Testing of Bearing Piles." Reasons for rejection include pre-ignition from overheating or malfunctioning of the injection system and poor hammer or capblock maintenance. After rejection, the Contractor shall repair or replace the hammer at no additional cost to the Department.

Add the following to **Section 501.3.6.1: Pile Measurement and Recording:**

501.3.6.1. Blow Counting Device
The Contractor shall provide an E-Sax or equivalent for each piling Project where piles will be driven and blow counts will be recorded. The E-Sax or equivalent shall be made available for use by the Project Manager for the duration of the Project. The Contractor shall provide hands-on-training and other support as needed in order to operate the device and maintain driving records. The E-Sax or equivalent shall meet the requirements of Section 501.3.2.2.9, "Blow Counting Device".

Delete **Section 501.3.6.4 Pile Groups** in its entirety and replace with the following:

If driving multiple rows of piles for pile cap foundations, the Contractor shall drive the piles to the estimated or minimum penetration elevation, before determining pile capacity for Acceptance. The driving sequence of pile groups shall be completed from the center of the group outward or from one side to the other side. After driving the piles in the group to the required tip elevation, the Contractor shall re-strike to determine the pile nominal capacity. If the piles do not develop the required nominal bearing capacity at that elevation, the Contractor shall continue to drive until the required resistance is attained.

The following has been added to **Section 501.5.1: Work Included in Payment:**

12. Blow Counting Device. E-Sax or equivalent, and all necessary training associated with operating the device and working with the manufacturer to ensure the unit remain operational.

September 29, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 502: DRILLED SHAFTS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 502.3.5.1.3: Slurry Displacement Construction Method** in its entirety and replace with the following:

The Contractor shall use the slurry displacement method at sites where maintaining a dry excavation is not possible. The Contractor shall use a mineral or polymer slurry, to maintain stability around the hole perimeter while advancing the shaft, placing the reinforcing cage and placing concrete. The Contractor shall displace the slurry during final cleaning of the excavation with a bailing bucket, air lift or submersible pump. The Contractor shall place concrete with a tremie or concrete pump beginning at the shaft bottom. During construction, the Contractor shall keep the slurry level in the shaft excavation high enough to prevent caving and at least five (5) feet above the highest expected piezometric pressure head along the depth of the shaft. If not using permanent casings, the Contractor shall provide temporary surface casings to aid shaft alignment and to prevent sloughing, unless otherwise approved by the State Geotechnical Engineer. If the slurry construction method does not produce the necessary results, the Contractor shall discontinue operations and make corrective modifications to the procedures and Equipment.

Delete **Section 502.3.5.2: Shaft Excavation** in its entirety and replace with the following:
The Contractor shall extend drilled shaft tip elevations when the State Geotechnical Engineer determines that the Material encountered during excavation is unsuitable. The Contractor shall dispose of Materials from the shaft excavation as directed by the Project Manager.

The Contractor shall not excavate any shaft or place any casing within four (4) shaft diameters of a previously constructed shaft, as measured center-to-center, until at least 48 hours has passed since completion of concrete placement in the previous shaft or until a concrete sample collected from the previous shaft, has been tested in accordance with **Section 510.3.4.3 Concrete Sampling and Testing,** attains a compressive strength of 2,000 psi or greater.

When using vibrating casing, the Contractor shall not place adjacent casings or excavate shafts until 48 hours after pour completion of an adjacent shaft or when concrete from the adjacent shaft pour breaks at least 2,000 psi, whichever comes first.

April 6, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 504: LOAD TESTING OF BEARING PILES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 504.3.1.1: Equipment for Dynamic Testing:**

504.3.1.1.6 Blow Counting Device

The Contractor shall provide an Energy Saximeter (E-Sax) or equivalent for review, approval and use by the Project Manager for each piling Project where piles will be driven and blow counts will be recorded. The E-Sax or equivalent shall meet the requirements of Special Provisions Section 501.3.2.2.9, Blow Counting Device. The E-Sax shall remain the property of the Contractor at the conclusion of construction.

Add the following to **Section 504.5.1: Work Included in Payment:**

2. Blow Counting Device. E-Sax or equivalent and all necessary training associated with proper operation and continued use of the device.

June 13, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 509: PORTLAND CEMENT CONCRETE MIX DESIGNS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 509.2.2.1 Portland and Blended Cements** in its entirety and replace with the following:
Portland cement shall comply with ASTM C150 Types I, II, III, and V. Portland cement shall have an alkali content less than 0.80% by mass of alkalis as Na_2O + 0.658 K_2O when determined under AASHTO T 105 unless approved otherwise by the State Concrete Engineer. Types III and V Portland cements shall only be used if specified.

Blended cements shall comply with Type IS (S) - Portland blast-furnace slag cement, Type IP (MS) (HS) - Portland-pozzolan cement, Type IL - Portland-Limestone cement or Type IT - (MS) (HS) Ternary blended cement as specified in ASTM C595 unless approved otherwise by the State Concrete Engineer. Class C fly ash shall not be used in blended cements, unless otherwise approved by the State Concrete Engineer. Type IP (MS) (HS) & Type IT (MS) (HS) blended cements shall not consist of more than 40 percent (40%) SCM. Type IL (MS) (HS) shall not consist of more than 15 percent (15%) limestone.

Delete **Section 509.2.2.2 Supplementary Cementitious Materials** in its entirety and replace with the following:
Each Supplementary Cementitious Materials (SCM) shall be in accordance with the following standards and as modified in Table 509.2.2.2:1, “Supplementary Cementitious Material Requirements” unless approved otherwise by the State Concrete Engineer.

1. Class N, C and F SCM shall comply with the requirements of ASTM C618:
    1.1. Class C shall not be used in concrete exposed to sulfate environments or with “potentially reactive,” or “reactive” aggregate;
2. Ultrafine fly ash (UFFA) shall comply with ASTM C618, Class N;
3. Ground granulated blast furnace slag (GGBFS) shall comply with ASTM C989, Grade 100 or 120; and
4. Silica fume shall comply with ASTM C1240.

Table 509.2.2.2:1
Supplementary Cementitious Material Requirements

SCM Type	Material Standard	Properties	Limits		
Coal Fly Ash, and Raw or Calcined Natural Pozzolans	ASTM C618	Class	N	F	C
		Sum of Al_2O_3, SiO_2, and Fe_2O_4, min	75%	65%	50%
		Loss on ignition, max	10.0%	4.0%	4.0%
		Magnesium Oxide (MgO), max	5.0%	5.0%	5.0%
		Sulfur Trioxide (SO_3), max	3.0%	4.0%	4.0%
		Available alkalis as Na_2O+0.658 K_2O	Report	Report	Report
		Calcium Oxide (CaO)	Report	18.0% max	18.0% min
Ultra Fine Fly Ash in addition to the requirements for Class F Fly Ash	AASHTO M 321	Accelerated Pozzolanic Activity Index, • 7 Day • 28 Day		 85% 100%	
		Particle size distribution • less than 2.25 μm • less than 8.50 μm		 50% 90%	
		Fineness, retained on 45 μm wet sieve, max		5.0%	
		Moisture content, max		1.0%	

Table 509.2.2.2:1
Supplementary Cementitious Material Requirements

SCM Type	Material Standard	Properties	Limits		
Metakaolin	ASTM C618	Silicon dioxide (SiO_2) + aluminum oxide (Al_2O_3), min		85%	
		Calcium oxide (CaO), max		1.0%	
		Sulfur trioxide (SO_3) max		1.0%	
		Loss on ignition, max		1.2%	
		Available alkalis as Na_2O + 0.658 K_2O, max)		1.5%	
		Accelerated Pozzolanic Activity Index, • 7 Day • 28 Day		 85% 95%	
		Fineness, retained on 45 μm wet sieve, max		5.0%	
Silica Fume	ASTM C1240	Reduction in mortar bar expansion when used with cement in the proposed mix design, min		80%	

Delete **Section 509.2.3.4 Aggregate Alkali-Silica Reactivity** in its entirety and replace with the following:
The Supplier shall test the aggregates accordance with ASTM C1260 once every two (2) years and C1293 once every four (4) years. Aggregates with an expansion of 0.10% or greater at 14 Days, or 0.04% or greater at one (1) when tested in accordance with C1260 and C1293 will considered reactive. Aggregates with an expansion of less than 0.04% at one (1) year will be considered nonreactive regardless of C1260 testing. Reactive aggregates shall not be used unless mitigative measures are included in the mix design.

The Supplier shall test alkali-silica reactivity mitigative measures in accordance with ASTM C1567 once every

two (2) years and C1293 once every four (4) years. The Department will consider mitigative measures to be effective if the expansion at 14 Days is less than 0.10%, or less than 0.04% at two (2) years when tested in accordance with C1567 and C1293, respectively. Mitigative measures with an expansion of 0.04% or greater at two (2) years will not be considered effective regardless of C1567 testing. Each source and size of aggregates shall be tested using the cement and mitigative measures used in the mix design. The individual aggregate requiring the highest level of mitigative measures or 15 percent (15%) SCM content by total cementitious content shall be the minimum used for the mix design, whichever is greater.

Delete **Section 509.2.7.1 Concrete Classifications** in its entirety.

Delete **Section 509.2.7.2 Concrete Class Requirements** in its entirety and replace with the following:

Concrete Class	Minimum Compressive Strength at 28 Days, psi	Cementitious Material Content, lbs/CY, Minimum or Range	Air Content[1] Range, %	Water/Cementitious Content Ratio, Maximum or Range	Slump Inches
A	3,000	525	4.0 - 8.0	0.50	1.5 - 4.5
AA	4,000	525 - 700	5.0 - 8.0	0.45	2.5 - 4.5
F	3,000	525	4.0 - 8.0	0.50	0.5 - 2.5
HPD	4,000	500 - 650	5.0 - 8.0	0.42 - 0.45	2.5 - 4.5
HPR	4,000	500 - 650	5.0 - 8.0	0.42 - 0.45	2.5 - 4.5
P	4,000	525	4.5 - 8.0	0.45	0.5 - 2.5
G	3,000	611	0.0 - 4.0	0.44	Note 2
S55	5,500	600 - 850	5.0 - 8.0	0.40	
S95	9,500	700 - 1,100	5.0 - 8.0	0.32	
Special	The Contract for the Project will address special mix requirements.				

Notes

1. Design air content shall be 6.5 percent (6.5%), except for Class G concrete which shall be 1.5 percent (1.5%).
2. See concrete classification description for slump and flow requirements.

1. **Class A** is general purpose, air entrained concrete with a maximum aggregate size less than 1 ½ inches allowed to be used for cast-in-place sidewalks, curb/gutter, concrete wall barrier, and Bridge Substructures;
2. **Class AA** is a medium strength structural cast-in-place concrete required for Bridge superstructures (excluding precast girders and Bridge decks), approach slabs, and abutments. Additional requirements include the following:
   2.1 An approved water reducing admixture shall be used; and
   2.2 Shall have a maximum aggregate size less than 1 ½ inches;
3. **Class HPD** is a medium strength concrete required for new and widened concrete Bridge decks, Bridge deck concrete paving, and concrete paving repair and used for concrete Bridge deck resurfacing, concrete Bridge deck and partial depth of concrete structures/members repairs. May be substituted for Class P. Additional requirements include the following:
   3.1 An approved water reducing admixture shall be used;
   3.2 Set accelerating admixtures shall not be used;
   3.3 Set retarding admixtures may only be used when approved;
   3.4 Shall consist of a minimum of 55 percent (55%) of one (1) inch or ¾ inch coarse aggregate in accordance with Section 509.2.3.2.1, Coarse Aggregate Gradation Requirements;

3.5 Shall use a combined gradation protocol;
3.6 Maximum shrinkage when tested in accordance with ASTM C157 less than 0.03 at 28 Days or 0.05 at 56 Days;
3.7 Shall contain a minimum 20 percent (20%) supplementary cementitious content (SCM) content; Maximum permeability when tested in accordance with ASTM C1202 shall be 2,500 coulombs at 28 Days or 2,000 coulombs at 56 Days;
3.8 When examined in accordance with the ASTM C457, shall have hardened air void system with a minimum air content of five percent (5.0%), specific surface greater than 600 inches-1; and
3.9 Spacing factor less than 0.008 inch;

4. **Class HPR** is a medium strength concrete used for concrete Bridge deck resurfacing, concrete Bridge deck and partial depth of concrete structures/members repairs. Additional requirements include the following:
   4.1 An approved water reducing admixture shall be used;
   4.2 Set accelerating admixtures shall not be used;
   4.3 Shall consist of a minimum of 50 percent (50%)of ½ inch coarse aggregate in accordance with Section 509.2.3.2.1, "Coarse Aggregate Gradation Requirements";
   4.4 Maximum shrinkage when tested in accordance with ASTM C157 less than 0.035 at 28 Days or 0.05 at 56 Days;
   4.5 Shall contain a minimum 20 percent (20%) supplementary cementitious material (SCM) or the minimum SCM needed to mitigate alkali-silica-reactivity, whichever is greater;
   4.6 Maximum permeability when tested in accordance with ASTM C1202 shall be 2,500 coulombs at 28 Days or 2,000 coulombs at 56 Days;
   4.7 When examined in accordance with the ASTM C457 linear traverse method, hardened air void system characteristics shall have a minimum air content of five percent (5.0%), a specific surface greater than 600 inches-1; and
   4.8 Spacing factor less than 0.008 inch;
5. **Class F** is a general purpose, air entrained concrete allowed for slip formed concrete wall barriers, curb/gutter; with a maximum aggregate size less than 1 ½ inches;
6. **Class G** concrete is required for below grade applications, drilled shafts and caissons. Additional requirements include the following:
   6.1 Air content shall be less than four percent (4.0%) unless specified by the Contract;
   6.2 When specified, the air content shall be five to eight percent (5% to 8%);
   6.3 Maximum coarse aggregate shall be ½ inch in accordance with Section 509.2.3.2.1, "Coarse Aggregate Gradation Requirements" unless approved otherwise;
   6.4 Set retarders and water reducing admixtures are allowed to extend the concrete mixing time and extend the concrete's slump life;
   6.5 A viscosity modifying admixture may be used;
   6.6 Shall have a slump range of 7.0 inches +/- 1.0 inch except when placed under a drilling fluid;
   6.7 When placed under a drill flued, shall have a slump of 8.0 inches +/- 1.0 inch; and
   6.8 Admixtures shall be adjusted for the job site conditions so that the concrete remains workable and plastic for the two (2) hours placement limit;
7. **Class P** concrete is required for concrete paving. Additional requirements include the following:
   7.1 When tested in accordance with ASTM C157, shall have a maximum shrinkage less than 0.035 at 28 Days; and
   7.2 Shall consist of a minimum of 55 percent (55%) of one (1) inch or 1 ½ inch coarse aggregate in accordance with Section 509.2.3.2.1, "Coarse Aggregate Gradation Requirements";
8. **S55** is a dense, high strength structural concrete allowed for precast concrete. Additional

requirements include the following:

8.1 An approved water reducing admixture shall be used;
8.2 A viscosity modifying admixture may be used;
8.3 Target slump shall be determined by the mix designer, but no greater than 10.0 inches +/- 1.0-inch; and
8.4 Shall have a slump flow of 22 to 26 inches if designed or modified to be a self-consolidating concrete (SCC);

9. **S95** is a dense, high strength structural concrete allowed for precast and prestressed concrete applications. Additional requirements include the following:
   9.1 An approved water reducing admixture shall be used;
   9.2 A viscosity modifying admixture may be used;
   9.3 Target slump shall be determined by the mix designer but no greater than 10.0 inches +/- 1.0 inch; and
   9.4 Shall have a slump flow of 22 to 26 inches if design or modified to be a SCC; and
10. **Special** is a classification for concrete mix designs which have been developed to meet Contract specific requirements.

Delete **Section 509.2.7.4 Freeze-Thaw Risk Zones** in its entirety.

Delete **Section 509.2.7.5.2 Concrete Mix Design Requirements** in its entirety.

Delete **Section 509.2.7.6 Mixture Design Submittals** in its entirety and replace with the following:

For standard concrete mix designs, the Supplier shall submit a completed electronic copy of the NMDOT Concrete Mix Design Submittal Form to the Concrete Unit of the State Materials Bureau for review and approval. The Contractor shall submit Special mix designs to the Project Manager for review and approval by the State Concrete Engineer.

The following information shall be included in the mix design submittal:

1. Supplier name;
2. Production facility physical address, telephone number and e-mail address;
3. PTL's name;
4. The New Mexico registration number of the professional Engineer who is responsible for the concrete mixture design Work;
5. Aggregates:
   5.1 Source name and location;
   5.2 ASTM C295 "Petrographic Examination of Aggregates for Concrete" and an ASTM C294, Constituents of Natural Mineral Aggregates for both the coarse and fine aggregates after completing processing and manufacturing procedures and the aggregate is ready for use shall be submitted. Include the geologic origin of the Material; perform and certify the analysis using a petrographer previously approved by the Department;
   5.3 AASHTO M 6 - Fineness modulus;
   5.4 AASHTO T 11 - Material finer than No. 200 sieve;
   5.5 AASHTO T 21 - Organic impurity content, including soft fragments, coal and lignite, flat or elongated pieces, and other Deleterious substances;
   5.6 AASHTO T 27 - Sieve analysis;
   5.7 AASHTO T 84 - Aggregate absorption;
   5.8 AASHTO T 85 - Specific gravity of coarse aggregates;

5.9 AASHTO T 96 - Los Angeles wear;
5.10 AASHTO T 104 - Soundness loss;
5.11 AASHTO T 112 - Clay lumps content;
5.12 AASHTO T 152 - Aggregate correction factor;
5.13 AASHTO T 176 - Sand equivalent of fine aggregate; and
5.14 AASHTO T 335 - Percent of Fractured Faces for aggregate greater than 3/8 inch;

6. Alkali-Silica-Reactivity
   6.1 ASTM C1260 - Potential Alkali Reactivity of Aggregates;
   6.2 If need, ASTM C1567 - Potential ASR of Combinations of Cementitious Materials and Aggregate; and
   6.3 ASTM C1293 - Length Change of Concrete Due to ASR;
7. Portland and Blended Cements
   7.1 Supplier name;
   7.2 Specific source name;
   7.3 Specific cement type;
   7.4 Specific SCM type; and
   7.5 Percent SCM;
8. SCM:
   8.1 Supplier name;
   8.2 Specific source name; and
   8.3 Specific SCM type;
9. Concrete mixture proportions; state clearly if submitting request under the combined gradation provisions;
10. Water/cementitious ratios;
11. Type and amount of admixtures; use admixtures on the Department's Approved Products List;
12. Water source and location;
13. Plastic Concrete Properties:
   13.1 Air temperature;
   13.2 Concrete temperature;
   13.3 Slump: ASTM C143, when using super-plasticizer, document the slump before and after addition of the super-plasticizer;
   13.4 Unit weight: ASTM C138; and
   13.5 ASTM C231 or C173;
14. Hardened Concrete Properties:
   14.1 Compressive strength tests (the average of three (3) cylinders tested at three (3) Days, seven (7) Days, 14 Days and 28 Days);
   14.2 Type of fracture of each cylinder;
   14.3 Flexural strength if required;
   14.4 Hardened air void analysis, if required;
   14.5 Rapid chloride permeability, if required; and
   14.6 Shrinkage data, if required.

February 1, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 511: CONCRETE STRUCTURES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 511.1 Description:**

Reference Section 512 for additional information related to Superstructure Concrete.

Delete the following Pay Item from **Section 511.5: Basis of Payment:**

Pay Item	**Pay Unit**
Substructure Concrete, Class ____	Cubic Yard

Add the following to **Section 511.5.1 Work Included in Payment:**

8. All provisions of Specification Sections 509, 510, 511, and 512. In the event of a conflict, the more stringent shall apply; and
9. Welded wire fabric.

April 15, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 512: SUPERSTRUCTURE CONCRETE

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the Pay Items from **Section 512.5: Basis of Payment** and replace with the following;

The Department will pay for Superstructure Concrete and High Performance Concrete (HPD) in accordance with Section 511.5: Basis of Payment:

Pay Item	**Pay Unit**
Structural Concrete, Class AA	Cubic Yard
Structural Concrete Class HPD	Cubic Yard

December 20, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 514: CONCRETE BARRIER RAILINGS FOR BRIDGES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to Section **514.5.1: Work Included in Payment:**

5. Two (2) Bridge number plates for every Bridge.

March 10, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 518: PRESTRESSED CONCRETE MEMBERS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 518: PRE-STRESSED CONCRETE MEMBERS** in its entirety and replace with the following:

518.1 DESCRIPTION
This Work consists of manufacturing and erecting pretensioned Prestressed Concrete Bridge Members and Precast Prestressed Slabs.

518.2 MATERIALS

518.2.1 Portland Cement Concrete
The Contractor shall provide an approved State Materials Bureau concrete mix in accordance with Section 509, "Portland Cement Concrete Mix Designs", requirements for Special Concrete and the compressive strength specified in the Contract.

518.2.1.1 Coarse Aggregate
The Contractor shall provide coarse aggregate that consists of Material no larger than one-third (1/3) the size of the smallest clear space where the Contractor shall place the concrete.

518.2.1.2 Design and Acceptability Requirements
The Contractor shall obtain the State Materials Bureau's approval of the concrete mix designs before casting. Once the State Materials Bureau approves a concrete mix design, the Contractor may only make subsequent changes in the mix proportions in accordance with Section 509.2.7.7, "Mixture Design Approval."

When the concrete mix design has been approved, the State Materials Bureau will provide the Contractor/Supplier with a field report form. The Contractor/Supplier shall enter the actual batch weights used in each batch of concrete and the measured moisture contents for each of the aggregates contained within each batch on the field report form. provided to the Contractor/Supplier at the same time the approved mix was provided. The Contractor shall ensure that all test results for compressive strength and fresh concrete properties, including slump, air content and unit weight, are also entered on the field report form.

518.2.1.3 Testing Requirements for Release Strength
The Contractor shall test using the Maturity Method in accordance with Section 510.3.5.2, "In-Place Concrete Strength Measurements", or make additional field cured cylinders for in-place strength tests (to determine application of prestressing forces). The Contractor shall make at least four (4) field cured cylinders from concrete placed on each casting bed.

The test results shall confirm the compliance with the release strength requirement shown in the Contract.

518.2.1.4 Acceptance Requirements

The Contractor shall test a minimum of two (2) cylinders per girder or pile in accordance with AASHTO T23 to ensure compliance with Section 510, "Portland Cement Concrete" and the required 28-Day compressive strength.

The Department will not Accept girders or piles with test results less than 90% of the 28-Day required strength. Girders or piles greater than 90% and less than 100% of the 28-Day required strength will be evaluated by the Project Manager for possible Acceptance. Cylinders that have achieved required strength requirements prior to 28-Day cylinder breaks will be Accepted,

The Contractor shall not ship girders or piles until the required ultimate compressive strength is confirmed by the Maturity Method or compressive strength tests, unless otherwise approved by the Project Manager.

Acceptance will be based upon measurements, tests, supporting data, and visual inspection of the Work for compliance with the Contract.

518.2.2 Steel Products

518.2.2.1 Reinforcing Steel

The Contractor shall provide steel reinforcement in accordance with Section 540, "Steel Reinforcement."

The Contractor shall use uncoated corrosion resistant reinforcing steel for reinforcing bars that project from the tops of girder and those within four (4) feet of girder ends. The Contractor may substitute the remaining reinforcing bars with the same corrosion resistant bars used in the girder ends at no additional cost to the Department.

518.2.2.2 Prestressing Reinforcement

The Contractor shall provide prestressing reinforcement consisting of high strength steel wire, high strength seven (7) wire steel strands, or uncoated high strength steel bars, in accordance with the Contract.

The Contractor shall provide prestressing reinforcement that is uncoated, clean, and free of dirt, loose rust, oil, grease, or other Deleterious Material when placed in the Prestressed Concrete Members.

518.2.2.2.1 High-Strength Wire

The Contractor shall provide high-strength steel wire in accordance with AASHTO M 204.

518.2.2.2.2 High-Strength Multiple-Wire Steel Strand

The Contractor shall provide high-strength multiple-wire steel strands in accordance with AASHTO M 203M, Supplement S1 (low-relaxation), unless otherwise specified.

518.2.2.2.3 Uncoated High-Strength Steel Bars

The Contractor shall provide uncoated high-strength steel bars in accordance with AASHTO M 275. If the Department allows bars with a greater minimum ultimate strength, the Contractor shall produce and test them in accordance with AASHTO M 275.

518.2.2.2.4 Identification of Prestressing Reinforcement

The Contractor shall assign prestressing reinforcement and anchorage assemblies with a lot number and tag

for identification purposes. The Department will reject high-strength Materials lacking identification.

518.2.2.2.5 Sampling of Prestressing Reinforcement

The Contractor shall provide samples for further testing if requested by the Project Manager.

The Contractor shall provide certification with the samples that states the samples were taken from and are representative of the lot numbers provided.

The Contractor shall provide load elongation curves and mechanical properties representative of the strands or bars to the Project Manager.

The Contractor shall sample and test in accordance with AASHTO 203/M 203. If the Department requests, the Contractor shall provide the following:

1. Enough wire to make up one (1) parallel lay strand at least eight (8) feet long, consisting of the same number of wires required for the strand in which they are to be assembled. Cut wires requiring heading for anchoring to length and headed on both ends;
2. At least eight (8) feet of wire strand of each diameter, measured between near ends of fittings. Provide the sample with fittings attached;
3. One completely fabricated prestressing tendon ten (10) feet long for each size tendon, including anchorage assemblies;
4. At least eight (8) feet of high-tensile strength bars of each diameter, measured between threads at ends of bars if furnished with threaded ends and nuts, or between anchorage devices; and
5. At least two (2) anchorage assemblies, complete with distribution plates of each size or type, unless such anchorage assemblies are attached to the samples of pre-stressing reinforcement.

The Contractor shall provide Material samples for testing six (6) weeks in advance of the anticipated time of casting.

518.2.2.2.6 Protection of Prestressing Steel

The Contractor shall protect prestressing steel against physical damage, rust, and other results of corrosion, from the time the strand is manufactured to the time of release. The Department will reject prestressing steel that is damaged in any way.

The Contractor shall package prestressing steel in containers or other shipping forms to protect the steel against physical damage and corrosion during shipping and storage. The Contractor shall place a corrosion inhibitor that prevents rust or other results of corrosion in the package and form or apply directly to the steel if the Project Manager allows. The Contractor shall ensure the corrosion inhibitor has no damaging effect on the steel or concrete or bond strength of steel to concrete.

The Contractor shall immediately replace or restore damaged packaging or forms. If using a corrosion-inhibiting carrier-type packaging Material, the Contractor shall provide the Material in accordance with Military Specification MIL-P-3420. The Contractor shall clearly mark the shipping package or form with the following:

1. A statement that the package contains high-strength pre-stressing steel;
2. The care in handling;
3. The type, kind, and amount of corrosion inhibitor used, including the date placed or applied;

4. Safety orders; and
5. Instructions for use.

If directed by the Project Manager, the Contractor shall submit the following for the corrosion inhibitor:

1. A sample, a list of chemicals and their proportions, and instruction for use;
2. Evidence that the prestressing steel will be protected from rust and other results of corrosion; and
3. A Certificate of Compliance.

After the Contractor installs the prestressing steel, the Contractor shall not weld or have ground welding Equipment on the forms or on the steel in the member.

518.2.2.3 Structural Steel

The Contractor shall provide Structural Steel in accordance with Section 541, "Steel Structures."

518.2.2.4 Debonding and Camber Control Sleeves

The Contractor shall only debond designated strands shown on the Plans. No additional debonding will be allowed unless included in the Accepted Shop Drawings.

The Contractor shall provide debonding sleeves that have such strength, durability, chemical resistance, and other properties so that the sleeves will provide complete debonding between strands and concrete as called for in the Contract. The Contractor shall submit debonding and camber control sleeves product information to the Project Manager for approval.

518.2.3 Girder Identification

The Contractor shall apply a unique girder mark to each Prestressed Concrete Member in a location that shall be visible after construction is complete. This mark shall be consistent with Quality Control Plan (QCP) documentation in accordance with Section 518.3.1.1, "Quality Control (QC)". The mark shall be applied with black paint using a stencil that is approximately one (1) inch in height. The Contractor shall apply the text, over a clear acrylic coating to seal the concrete, and apply a clear acrylic coating over the text.

Alternatively, an electronic tracking mark may be embedded into the Prestressed Concrete Member if approved by the Project Manager. The Contractor shall include the same information on the electronic tracking mark as required on the paint stencil mark.

518.2.4 Submittals

518.2.4.1 Precast/Prestressed Concrete Institute Certified Plant

The Contractor shall provide Prestressed Concrete Members manufactured in a plant certified by PCI. The manufacturer shall have a B4 certification for Prestressed Deflected-Strand Bridge Members. The Contractor shall maintain certifications throughout the production of Prestressed Concrete Members. The Contractor shall stop production if at any time the manufacturer's certification is revoked, regardless of the status of completion of contracted Work. The Contractor shall not resume production until the necessary corrections are made and certification has been re-established.

The Department will not be responsible for time, additional compensation, or other Project impacts due to lack of certification.

518.2.4.2 Annual Approval Letter to Fabricate Prestressed Concrete Members

In addition to PCI certification, the Contractor shall submit the annual plant approval letter, signed by the State Bridge Engineer confirming approval to fabricate Prestressed Concrete Member for the Department, to the Project Manager.

518.2.4.2.1 Request for Annual Approval from State Bridge Engineer

The Fabricator shall submit a written request for plant approval to the State Bridge Engineer yearly for review and Approval. The State Bridge Engineer will have 60 Days for review and Approval.

The following documents shall be included with the request submittal to the State Bridge Engineer:

1. QCP, aka Quality Systems Manual (QSM) – certified by PCI;
2. Last two (2) PCI audit documentation, including the corrective action report (CAR);
3. Minutes from the yearly quality system committee;
4. Qualifications and certifications for:
   - 4.1 Quality Control (QC) Manager;
   - 4.2 QC Inspector(s);
   - 4.3 Material testing technician(s); and
   - 4.4 Shop welder(s);
5. Product data for repair Materials (concrete rub, concrete patch Material, epoxy injection Materials, etc.).

At the discretion of the State Bridge Engineer, a site visit may be required. This will be scheduled around the fabrication required for a Department Project. During a site visit, the follow actions could be observed: batching, concrete Material testing, pre-pour inspection, placement, curing, and final product inspections.

Upon Acceptance of the submittal, a letter of approval to fabricate prestressed elements for the Department will be issued to the Fabricator by the State Bridge Engineer. The Contractor shall submit only the approval letter to the Project Manager. The Contractor shall not submit the information reviewed and approved by the State Bridge Engineer for specific Projects.

518.2.4.2.2 Quality Control Plan (QCP)

The QCP shall list all methods utilized by the manufacturer to ensure that the Work conforms to the requirements in the Contract. The QC Manager is responsible for establishing the QCP, as well as conformance to the QCP. If Work methods for a specific Project or product are not listed in the original QCP, the Contractor shall submit written revisions addressing the proposed methods that are necessary to meet Contract requirements. The Contractor shall not start fabrication until the revisions have been reviewed and Accepted in writing by the Project Manager.

The Contractor shall ensure the manufacturer's QCP includes the following:

1. A listing of qualifications of the QC Manager and personnel conducting inspection and testing;
2. Materials sampling and testing schedule, showing testing methods and frequencies;
3. QC inspection methods and procedures for all stages of fabrication operations;
4. Methods for curing products and test specimens;
5. Method and sequence for tensioning strands, including methods used for verifying equal distribution of jacking forces and elongation measurements;

6. Method and sequence of de-tensioning strands;
7. Written report format for Materials sampling, testing, and inspection for all phases of the Work;
8. Provisions for fabrication operations during cold, windy, or hot weather conditions;
9. Procedures for patching small production holes and holes left by strand hold-down devices;
10. Procedures for identifying, evaluating and reporting defects, including dimensional Non-Conformance, discovered during QC/QA inspections and testing; and
11. Procedures for notifying the Project Manager of structural defects, and submittal of written proposal for repairs.

The QCP shall contain provisions for increased frequencies of inspection and testing when operations or products do not conform to the Contract. Repeated out of tolerance Work, including dimensional Non-Conformance, shall be considered as recurring deficiencies. When the State Bridge Engineer determines that fabrication operations are producing recurring defects that do not conform to the Contract, the Contractor/Fabricator shall be required to submit a written proposal addressing corrective procedures that the Contractor/Fabricator will take to prevent recurrence of the Non-Conformance Work. Approval of the QCP may be suspended until the proposal has been reviewed and Accepted in writing by the State Bridge Engineer.

518.2.4.3 Working Drawings

The Contractor shall furnish Working Drawings to the Project Manager for review and approval by the State Bridge Engineer. The Working Drawings shall be in accordance with Section 105.2, "Plans, Working Drawings", for all Prestressed Concrete Members. The Contractor shall provide Working Drawings stamped by a professional Engineer licensed in the State of New Mexico, that has a minimum of five (5) years' experience with prestressed concrete design. The Department's review of the Working Drawings does not relieve the Contractor of the responsibility for the adequacy of the Prestressed Concrete Members. The Contractor shall submit all supporting calculations for the Working Drawings. The Contractor shall allow 30 Days for review and Acceptance of Working Drawings and calculations. Any re-submittals will require an additional 14 Days for review.

The Contractor's Working Drawings shall include the following:

1. Unit dimensions;
2. Location, size, and type of prestressing strands;
3. Initial and final jacking forces;
4. Location, description, and detail of structural reinforcing items;
5. Location of all hold-down devices;
6. Shop Drawings of all steel items, and details for steel diaphragm connections. Shop Drawings shall be in accordance with AASHTO/NSBA G1.3, Shop Drawing Presentation-Guidelines;
7. Block-out and keyway dimensions, if any, including surface preparation;
8. Location and detail of debonded strands;
9. Rebar schedule per ACI detailing manual SP-66;
10. Framing Plan with the Fabricators unique mark numbers. Girders that are identical in every detail may be set interchangeably;
11. Embeds for overhang brackets and permanent steel deck forms;
12. Stresses in the top and bottom of the Prestressed Concrete Member during de-tensioning of the strands;
13. The predicted girder shortening, camber at release, and camber at 90 Days;

14. Shop Drawings, written procedures, and calculations for the special design such as camber control using prestressing top strands; and
15. Handling, storing and transportation details.

518.2.4.4 Notification of Fabrication for Prestressed Concrete Members

The Contractor shall notify the Project Manager of the following:

1. Start of Work. Fabrication shall not begin until the Working Drawings submittal has been reviewed and Accepted by the Project Manager;
2. Production Schedule. The production schedule shall be submitted to the Project Manager a minimum of 21 Days prior to the start of fabrication. The production schedule shall include start of Work, phase of Work, and shipment dates. Should modifications to the production schedule be necessary, the Contractor shall provide written notice to the Project Manager a minimum of 72 hours in advance of Work. After start of fabrication, the Department will Work with the Fabricators to flex the schedule around unforeseen circumstances;
3. Notice of Shipment. The Contractor shall notify the Project Manager, at least 72 hours before shipment of Prestressed Concrete Members to the job site; and
4. Notification. Failure to notify the Project Manager may be cause for suspension of Work or rejection.

518.2.4.5 Post Fabrication / Pre-Delivery QA/QC Documents

The Contractor shall submit the following records and reports to the Project Manager for acceptance ten (10) Days prior to the shipment of the girders.

1. Prestressing Steel. Tensioning reports for each setup, showing the jacking force calculations; initial and final jacking force used; calculated and final net measured elongation; applicable stressing corrections for seating, slippage, shortening, rotation movement, and temperature;
2. Concrete. Concrete cylinder break reports and daily reports of each mix design used, showing the fresh concrete slump, temperature, unit weight, and air content (if specified). The daily report shall also include the following data:
   - 2.1 Date and time of casting;
   - 2.2 Casting bed and setup location;
   - 2.3 Ambient conditions;
   - 2.4 Total cubic yards placed and number of girders or pieces completed;
   - 2.5 Actual product curing temperature charts or graphs;
   - 2.6 Average release strength in psi;
   - 2.7 Date and time of release strength; and
   - 2.8 Copies of individual batch tickets when requested by the Project Manager;
3. Pre-pour inspection records shall be per the Accepted QCP plan; and
4. Post-pour inspection records shall be per the Accepted QCP plan. These records shall include all discovered variances from product dimensional tolerances, report of minor repairs made to each individual product, and all other member specific information.

518.3 CONSTRUCTION REQUIREMENTS

518.3.1 Quality Processes

518.3.1.1 Quality Control (QC)

QC of Prestressed Concrete Member fabrication is the responsibility of the Contractor. The Contractor shall designate a QC Manager who shall be responsible for product quality requirements and the Contractor's approved QCP.

518.3.1.2 Quality Assurance (QA)

QA and product Acceptance are the prerogatives of the Department. The Project Manager will be the QA Representative. QA administration will be performed to the extent necessary to assure Contract compliance.

518.3.2 Fabrication

518.3.2.1 Pre-Fabrication Conference

A Pre-Fabrication Conference is required. The Pre-Fabrication Conference will be scheduled, by the Project Manager and will be held after Acceptance of Working Drawings, a minimum of 72 hours prior to start of fabrication. The agenda will include review of the fabrication schedule and the Department's QA involvement. Required attendees are the Project Manager, a Contractor representative, a Fabricator representative who can speak to schedule and quality, and the Bridge Engineer.

518.3.2.2 Forms

The Contractor shall use forms that are smooth, grout tight, and capable of withstanding the action of form vibrators. The Contractor shall accurately fabricate and secure the forms in position so that the cast member will present true, smooth and even surfaces.

The Contractor shall construct forms for interior cellular spaces with an approved Material that is watertight, resistant to breakage and deformation, and as lightweight as possible. The Contractor shall anchor interior forms to resist flotation or displacement during concrete placement. The design of interior and exterior forms shall not restrict the longitudinal movement of the member when the Contractor transfers the prestressing force to the casting.

518.3.2.3 Placement of Reinforcing Bars and Appurtenances

The Contractor shall place and secure reinforcing bars, forms for cored holes and cellular spaces in accordance with the Contract. The Contractor shall conform to concrete cover requirements over reinforcing bars near and at ends of girders.

518.3.2.4 Tensioning

The Contractor shall apply tension to prestressing steel with hydraulic jacks to produce forces in accordance with the approved Working Drawings.

During strand stressing, individual wire failures may be Acceptable if no more than one (1) wire in any strand is broken and the area of broken wire does not exceed two percent (2%) of the total area of the pre-stressing steel in the member. Wire failure shall be documented by the Contractor in record documents, in accordance with Section 518.2.4.2.2, "Quality Control Plan (QCP)".

The Contractor shall stress the members in a sequence that produces a minimum of eccentric forces.

518.3.2.4.1 Tensioning Equipment

The Contractor shall apply stress to tendons using hydraulic jacks that can provide and sustain the necessary

forces and have either a pressure gauge or a load cell for determining jacking stresses.

The Contractor shall use a pressure gauge with at least a six (6) inch diameter dial accompanied with a certified calibration chart. The Contractor shall calibrate each jack and its gauge as a unit with the cylinder extension in the approximate position that it will be at final jacking force.

The Contractor shall calibrate a load cell and provide it with an indicator to determine the prestressing force in the tendon. The Contractor shall use a load cell range that does not include the lower ten percent (10%) of the Fabricator's rated capacity to determine the jacking stress.

The Contractor shall use a testing Laboratory approved by the Project Manager to calibrate the Equipment. The Contractor shall ensure that the Equipment has been calibrated within a year of the Work. The Project Manager may check certified calibration charts for the hydraulic jacks, pressure gages or load cells used for tensioning pre-stressing steel before and during tensioning operations.

518.3.2.4.2 Measurement of Stress

The Contractor shall provide a record of gauge pressures and tendon elongations for each tendon, for review and approval by the Project Manager. The Contractor shall measure elongations to an accuracy of within 1/16 inch.

The Contractor shall use the gauge or load cell readings to determine the stress in the tendons during tensioning and verify with the measured elongations.

The Contractor shall use the modulus of elasticity to calculate anticipated elongations of and base calculations for the nominal area (provided by the Fabricator per lot of tensioned steel), or as determined by a bench test of strands used in the Work.

Before starting elongation readings, the Contractor shall tension the tendons to a preliminary force to eliminate take-up in the tensioning system. The Contractor shall ensure this preliminary force is between five percent (5%) and 25% of the final jacking force. The Contractor shall measure the initial force with a dynamometer or with other approved methods. The Contractor shall mark each strand before the final stressing to permit measurement of elongation and to ensure that anchor wedges are set properly.

The Contractor shall address a discrepancy in indicated stress between jack gauge pressure and elongation. If this occurs, the load used, as indicated by the gauge pressure, will produce a slight overstress rather than understress. The Contractor shall check the entire operation to determine the source of errors, if a discrepancy occurs between gauge pressure and elongation; more than five percent (5%) for tendons longer than 50 feet, or seven percent (7%) for tendons shorter than 50 feet. The Contractor shall correct errors before proceeding

518.3.2.4.3 Tensioning Pre-tensioned Members

The Contractor may cast several Prestressed Concrete Members in a continuous line on the casting bed.

Two (2) splices of pre-stressing strand are allowed within the entire spool. The Contractor shall not use strands within each Prestressed Concrete Member that have splices.

The Contractor shall accurately locate and hold strands in positions in accordance with the Contract for each

individual Prestressed Concrete Member. The Contractor may request to modify the strands by submitting an alternate strand layout, with Shop Drawings and calculations stamped by a professional Engineer licensed in the State of New Mexico, to the Project Manager for review and approval by the Bridge Engineer.

The Contractor may anchor straight prestressing strands at one end of the casting bed and stress the other end with hydraulic jacks. The Contractor shall tension each individual strand to the required stress. The Contractor shall adopt a method for stressing draped strands that prevents significant stress loss between the jacking and anchor ends of the casting bed. If required to avoid significant stress loss, the Contractor shall stress draped strands from both ends of the casting bed.

The Contractor shall stress or check prestressed strands for required stress within 24 hours before placing concrete in the Prestressed Concrete Members.

The Contractor shall not release or cut pre-tensioned strands until cylinder tests indicate that the concrete in the Prestressed Concrete Members has reached the designated compressive strength at release as shown in the Contract. The Contractor shall remove side forms before releasing the strands. Strands may be flame cut to release stress. The Contractor shall release or cut the strands in accordance with a previously approved sequence to avoid unbalanced forces in excess of that applied by one (1) strand. The Contractor shall trim strands in piles flush with the top and bottom of the piles.

518.3.2.5 Placement and Consolidation of Concrete

The Contractor shall place concrete in accordance with Section 511, “Concrete Structures,” and Section 512, “Superstructure Concrete.”

The Contractor shall inspect all items to be embedded in the concrete prior to concrete placement. The Project Manager may inspect embedded items at their discretion. The Department will allow the placement of concrete in the bottom flange of Prestressed Concrete Member Type Box before placement of the interior form and reinforcing bars in the upper portion of the Prestressed Concrete Member Type Box if concrete placement is continuous for longer than 30 minutes.

The Contractor shall use external vibration for Prestressed Concrete Member Type Box to eliminate internal honeycombing. The Contractor shall rigidly attach external vibrators to the forms in sufficient quantity so that the vibration extends throughout the entire length of the Prestressed Concrete Member Type Box.

The Contractor shall not use vibrating methods that cause segregation. The Department may reject Prestressed Concrete Members with voids in piles, voids in the bottoms of girders, voids in girders over-bearing points or honeycombing sufficient to expose pre-stressing tendons or reinforcement.

518.3.2.6 Finishing Concrete Surfaces

The Contractor shall provide a transversely roughened top surfaces of Prestressed Concrete Members over the entire flange width to a minimum depth of 1/4 inch and a maximum of 3/8 inch. The maximum allowable space between roughened areas on surfaces shall be 1/2 inch. The Contractor shall clean the top surface of Prestressed Concrete Members after initial set to remove laitance, dirt and debris.

The Contractor shall finish the top surface of Prestressed Concrete Member Type Box and piles by over filling the forms, vibrating, and striking off with a metal plated strike board. On the final forward movement of the strike board, the Contractor shall carry excess grout ahead to completely fill the form. After striking off the

concrete, the Contractor shall finish the surface to a true plane. The Contractor shall ensure that surface irregularities do not exceed 9/16 inch per ten (10) feet.

If the Contract requires the Contractor to embed the ends of Prestressed Concrete Members in concrete diaphragms, the ends of the Prestressed Concrete Members do not require hand finishing after removal of forms. If the Contract does not require the Contractor to extend strands for field or shop bending to provide continuity reinforcement, the Contractor shall cut the strands three (3) inches or less beyond the Prestressed Concrete Member ends.

The Contractor shall finish Prestressed Concrete Member ends that will not be embedded in concrete and other surfaces of Prestressed Concrete Members with a Class 2, Rubbed Surface Finish in accordance with Section 511.3.9, "Finishing".

518.3.2.6.1 Mockup of Finishing Concrete Surfaces

When required by the State Bridge Engineer, the Contractor shall mockup the concrete surface finish on a concrete slab with minimum dimensions of 24 inches by 48 inches. The mockup shall include simulated stirrups and stay-in-place form tabs at common spacing to demonstrate surface prep around these obstacles. Upon Acceptance by the State Bridge Engineer, this mockup shall be retained and made available upon request.

518.3.2.7 Curing

The Contractor shall steam cure or water cure Prestressed Concrete Members. The Contractor shall not use a curing temperature greater than 150 degrees F. The Contractor shall uniformly increase the temperature to the maximum temperature over a period not less than seven (7) hours. The Contractor shall additionally uniformly reduce the curing temperature such that at least seven (7) hours are required to reduce the temperature of the curing environment.

The Contractor shall perform steam curing in accordance with Section 517, "Precast Concrete Structures".

The Contractor shall perform water curing in accordance with Section 511, "Concrete Structures".

518.3.2.8 Tolerances

The maximum allowable deviations from the dimension and details shown on the Plans are listed in the Manual for Quality Control for Plants and Production of Structural Precast Concrete Products and the PCI Tolerance Manual, most current version, published by the PCI with the following exceptions:

1. The tolerance on tipping and flushness of shoe plates within 1/16 inch; and
2. The tolerance of steel diaphragms attachment holes shall be no greater than 1/16 inch.

The Contractor shall repair cracks in the end regions of Prestressed Concrete Members as follows:

1. Cracks that do not impact the structural integrity of the Prestressed Concrete Member that are equal to or greater than 0.007 inches in width and/or are located under expansion joints in the final condition of the Structure shall be epoxy injected in accordance with Section 534, "Epoxy Injection";
2. Cracks that may impact the structural integrity of the Prestressed Concrete Member shall be analyzed by the Bridge Engineer prior to Acceptance. The Contractor shall repair the Prestressed Concrete Member per the Bridge Engineer's recommendations; and

3. Excessive cracking that is outside the tolerance of Section 518.3.2.8 “Tolerances” shall not be repaired with epoxy injection and the Prestressed Concrete Member will not be Accepted.

518.3.2.9 Lifting, Handling, Storing and Transporting Prestressed Concrete Members

The Contractor shall not handle Prestressed Concrete Members until after prestressing tendons have been released and forms have been removed.

The Contractor shall always keep webs of Prestressed Concrete Members vertical and in the same position as shown in the final installation. The bottoms of Prestressed Concrete Members shall be kept level. The Contractor shall keep the points of support and direction of reactions in accordance with approved Working Drawings.

The Contractor shall limit the camber growth to a value not to exceed the predicted camber at erection dimension by two (2) inches at the time of deck slab placement for Prestressed Concrete Members greater than 54 inches in depth. The Contractor shall limit camber growth to one (1) inch for Prestressed Concrete Members 54 inches or less. If camber growth measures are necessary, the Contractor shall include the methods for camber control in the Shop Drawings submittal.

The Contractor shall include any devices that will be used for lifting, handling, transporting, and erection of the Prestressed Concrete Members in the Shop Drawings.

The Contractor shall not crack, spall, or otherwise damage Prestressed Concrete Members during lifting, handling, hauling, storing, erecting or transporting. Prestressed Concrete Members damaged by improper handling shall be brought to the attention of the Project Manager immediately and may be rejected.

The Contractor shall not transport Prestressed Concrete Members to the job site until the required ultimate compressive concrete strength is attained in accordance with Section 518.2.1.4,”Acceptance Requirements”.

518.3.3 Bracing for Prestressed Concrete Members

The Contractor shall tie and brace the Prestressed Concrete Members immediately after erection to prevent overturning. The Contractor shall leave ties and bracing in place until the Prestressed Concrete Members are permanently secured for lateral stability. If steel girder diaphragms are used, the Contractor shall install diaphragms during Prestressed Concrete Member erection.

Bracing shall be in accordance with Section 512.3, “Construction Requirements”.

518.3.4 Grouting Keyways in Prestressed Concrete Member Type Box and Precast Prestressed Slabs

The Contractor shall provide an exposed aggregate finish for all keyways used to connect adjacent Prestressed Concrete Members with a minimum amplitude of ¼ inch unless otherwise shown on the Plans.

The Contractor shall grout keyways between adjacent Prestressed Concrete Member Type Box or Precast Prestressed Slabs designated for grout in accordance with Section 521, “Non-Shrink Grout”.

518.4 METHOD OF MEASUREMENT

Prestressed Concrete Members will be measured by the linear foot. Precast Prestressed Slabs will be measured by the Square Foot.

518.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Prestressed Concrete Member Type ____	Linear Foot
Precast Prestressed Slab _____ In. Depth	Square Foot

518.5.1 Work Included in Payment

The following items will be considered as included in the payment for the main item(s) and will not be measured or paid for separately:

1. Prestressing steel, reinforcing steel and embedded items for Prestressed Concrete Members;
2. Mockup of surface finish;
3. The Quality Control and Quality Assurance requirements;
4. Epoxy Injection of cracks in end regions; and
5. Shipping and erecting Prestressed Concrete Members.

December 20, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 537: POLYESTER/EPOXY CONCRETE OVERLAY

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to Section **537.5.1: Work Included in Payment:**

4. Tining and/or grooving.

July 15, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 540: STEEL REINFORCEMENT

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 540.2: Materials:**

540.2.13 Headed Reinforcing Bars
Headed reinforcement shall meet the requirements of ASTM A970 "Headed Steel Bars for Concrete Reinforcement", Annex A1, Class HA.

If headed reinforcement is not included in the Contract, the Contractor may propose the use of headed reinforcement at no additional cost to the Department.

540.2.14 Mechanical Couplers
Mechanical couplers shall meet the requirements for AASHTO M31, Grade 60, and ASTM A706, Grade 60 or ACI 318, Type 2. Mechanical coupler splice strength must be greater than or equal to 125% of the yield strength of the spliced reinforcing bars and must develop the specified tensile strength of the bars. The Contractor shall submit the coupler type (manufacturer and model number) and certified test results showing that the coupler meets these requirements.

Delete 4. and 5. from **Section 540.2.5 Corrosion-resistant and Coated Reinforcing Bars** and replace with the following:

4. Uncoated low-carbon, chromium steel bars in accordance with AASHTO M334 or ASTM A1035; or
5. Galvanized reinforcement in accordance with ASTM A767 or ASTM A1094.

Delete 3. from **Section 540.2.6 Coating and Patching Materials and replace with the following:**

3. Zinc-rich paint with a minimum 65% zinc content in accordance with ASTM A780 for patching damaged and uncoated areas of galvanized reinforcing bars.

Delete the first paragraph and 6. from **Section 540.2.7 Accessories** and replace with the following, respectively**:**
The Contractor shall provide plastic-coated reinforcing tie wire for tying epoxy-coated reinforcing bars, for deformed stainless steel bars, for stainless steel clad deformed steel bars and for uncoated low-carbon, chromium, steel deformed bars. The Contractor shall provide galvanized, annealed wire tires for galvanized bars and for hot-dip galvanized reinforcing bars.

6. Galvanized sand chairs, hot-dip galvanized wire bar supports, or other non-corrosive metal supports placed directly on the ground; or

Delete **Section 540.2.11 Hot-Dip Galvanized Reinforcing Bars** in its entirety and replace with the following**:**
The Contractor shall choose one (1) of the options listed below when providing galvanized bars:

1. The Contractor shall provide hot-dip galvanized reinforcing bars in accordance with ASTM A767. The Contractor shall galvanize bar after cutting and bending; or
2. The Contractor shall provide continuous hot-dipped galvanized reinforcing bars (CGR) in accordance with ASTM A1094. The Contractor shall bend and cut bar after galvanizing.

Delete **Section 540.3.1.1 Bar Lists and Bending Diagram** in its entirety **and replace with the following:**
When the Plans do not include detailed bar lists and bending diagrams, the Contractor shall provide Shop Drawings, bar lists, bending diagrams, and estimated reinforcement quantity to the Project Manager for Bridge Engineer review and Acceptance, prior to ordering any Materials.

When a detailed bar list and bending diagram are included on the Plans, they are included for the Contractor's information and for quantity estimation only. It is the responsibility of the Contractor to notify the Department of any errors identified in the provided bar lists and bending diagrams. Once notified, the Department will correct the identified errors as necessary and provide the Contractor with amended details. The Contractor shall provide Shop Drawings, bar bending lists, bending diagrams, and estimated reinforcement quantity to the Project Manager for Bridge Engineer review and Acceptance in advance of ordering any Materials.

The Contractor shall include the bar marks, shown on the Plans, on the bar tags and the rebar details, bar lists, and bending diagrams on the Shop Drawings. Contractor may include an alternate bar mark for fabrication purposes, but the Contractor shall also show the Plan bar marks in all locations on Shop Drawings and bar tags.

Acceptance of the Shop Drawings, bar lists, bending diagrams and estimated reinforcement quantity shall not relieve the Contractor of responsibility for correctness of the Shop Drawings, bar lists, bending diagrams, and estimated reinforcement quantity. The Contractor's detailed bar lists and bending diagrams shall meet the requirements of the current edition of the Concrete Reinforcing Steel Institute's (CRSI) publication, Manual of Standard Practice. The Contractor shall allow 30 Days for review of the submittal.

Delete **Section 540.3.1.3 Bar Bending** in its entirety and replace with the following**:**
The Department will allow cold bending around a pin. The Contractor shall not field bend, Grade 60 bars, epoxy-coated bars or standard class hot-dip galvanized bars after galvanizing. For continuous hot-dip, galvanized reinforcing bars (CGR), the Contractor shall fabricate, bend and cut after galvanizing.

Unless otherwise directed, the Contractor shall ensure the bend diameter is in accordance with CRSI Manual of Standard Practice current edition.

Delete **Section 540.3.1.4: Splicing** in its entirety and replace with the following:
The Contractor shall splice bars in accordance with the Plans unless otherwise approved by the State Bridge Engineer.

The Contractor shall place and tie bars in lapped splices to maintain minimum reinforcing cover.

The Contractor shall splice spiral reinforcement by lapping. The Contractor shall ensure that laps are at least 48 bar or wire diameters, but not less than one (1) foot with 90° hooks around longitudinal bars at ends unless

otherwise indicated in the Contract.

The Department will allow the use of headed reinforcing bars in accordance with Section 540.2.13, “Headed Reinforcing Bars”.

The Department will allow the use of mechanical couplers in accordance with Section 540.2.14, “Mechanical Couplers”.

Unless otherwise specified, the Contractor shall ensure that welded wire fabric and bar-mat reinforcement overlap is at least one (1) spacing of cross wires plus two (2) inches when measured between the outer-most cross wires of each sheet.

Delete **Section 540.3.3.3: Thickness of Galvanizing** and replace with the following**:**
For ASTM A1094, the Contractor shall ensure that the galvanizing after drying with air, steam or wiping is from two (2) mils to three (3) mils thick.

For ASTM A767, the Contractor shall ensure that the galvanizing after drying with air, steam or wiping is from three (3) mils to 3.9 mils thick.

The Contractor shall determine the thickness with a magnetic thickness gage. The Contractor shall submit a Certificate of Compliance.

Add the following to **Section 540.5.1: Work Included in Payment:**

4. Headed reinforcement shall be included in the reinforcing bar pay item(s). No additional weight will be added.

SPECIAL PROVISIONS
MODIFYING
SECTION 542: HIGH-STRENGTH BOLTS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 542: HIGH STRENGTH BOLTS** in its entirety and replace with the following:

542.1 DESCRIPTION
This Work consists of providing and installing High-Strength Bolts.

542.2 MATERIALS
The Contractor shall mark bolts, nuts, and washers in accordance with the applicable ASTM Specifications.

542.2.1 Bolts
The Contractor shall provide bolts in accordance with ASTM F3125, Grade F1852 or Grade F2280 bolts ("twist-off" style bolts). The Contractor shall ensure that bolt dimensions are in accordance with ASTM F3125 Table 2.

When specified in the Contract, or when bolts are embedded, or when a snug-tight condition is specified, it is Acceptable to use F3125 grade A325.

When the Contract requires unpainted corrosion resistant (weathering) steel, the Contractor shall supply Type 3 High-Strength Bolts in accordance with ASTM F3125. When the Contract does not require unpainted corrosion resistant (weathering) steel, the Contractor shall provide Type 1 High-Strength Bolts in accordance with ASTM F3125.

When the Contract requires galvanized fasteners, the Contractor shall mechanically galvanize in accordance with ASTM B695, Class 50.

542.2.2 Nuts
The Contractor shall provide nuts in accordance with ASTM A 563 with dimensions in accordance with ANSI 18.2.2. For both plain (ungalvanized) and heat-treated galvanized nuts, the Contractor shall ensure nuts meet the requirements of ASTM F3125 Table 2.

The Contractor shall lubricate galvanized nuts with a dyed lubricant of a color that contrasts with the galvanizing color.

542.2.3 Washers
The Contractor shall provide washers in accordance with ASTM F436.

The Contractor shall provide flat circular hardened washers and square or rectangular beveled washers with

dimensions according to ASTM F436 Table 2 and Table 3.

When the Contract requires unpainted corrosion-resistant (weather) steel, the Contractor shall supply Type 3 hardened washers.

542.2.4 Material Testing Requirements

542.2.4.1 Testing of Bolts

The Contractor shall conduct proof load tests in accordance with ASTM F606, Method 1.

The Contractor shall conduct wedge tests on full-size bolts in accordance with ASTM F606, paragraph 3.5. The Contractor shall perform tests on galvanized bolts after galvanizing.

The Contractor shall ensure that the minimum testing frequency is in accordance with ASTM F3125, paragraph 9.6.1. The Contractor shall measure zinc coating thickness on galvanized bolts on the wrench flats or bolt head tops.

The Contractor shall conduct additional testing of "twist-off" style bolts in accordance with ASTM F3125 paragraph 11.

542.2.4.2 Testing of Nuts

The Contractor shall perform proof load tests in accordance with ASTM F606, paragraph 4.2.

The Contractor shall ensure that the minimum testing frequency is in accordance with ASTM A563, paragraph 9.3. Test galvanized nuts after over tapping, galvanizing and lubricating.

542.2.4.3 Testing of Washers

The Contractor shall, test galvanized washers for hardness after galvanizing. The Contractor shall remove the coating before conducting the hardness tests.

542.2.5 Testing of Assemblies

The Contractor shall provide the manufacturers or distributors rotational capacity test results on bolt, nut, and washer assemblies. The Contractor shall use washers in the test, even if washers are not used in the assembly on the Project.

The Contractor shall test each combination of bolt production lot, nut lot, and washer lot as an assembly. Unless required by the installation procedures, the Contractor shall not include washers in the lot identification.

The Contractor shall assign a rotational capacity lot number to each lot combination tested.

The minimum testing frequency is two (2) assemblies per rotational capacity lot.

542.2.5.1 Procedure for Rotational Capacity Tests for Long Bolts

The Contractor shall test bolts long enough to test in a tension calibrator in accordance with the following procedures:

1. Mark the calibrator face plate with lines at vertical and at 1/3 (120°) and 2/3 (240°) of a turn, clockwise from vertical;
2. Use a calibrated torque wrench;
3. Use spacers with a hole size no larger than 1/16 inch larger than the bolt to be tested; and
4. Mount the bolt calibrator on a steel frame or section such as a flange or a cross frame.
   4.1. Put the nut on the bolt. Measure from the end of the threaded shank to the underside of the bolt head when there are three (3) to four (4) full threads of the bolt between the bearing face of the nut and the bolt head;
   4.2. Put the bolt in the tension calibrator and install the required number of shim plates and washers needed to produce the measurement from Step 4.1 (always install one (1) washer under the nut);
   4.3. Snug tighten the bolt with a hand wrench to the tension listed in Table 542.2.5.1:1, "Snug Tight Tension"; do not exceed two (2) kips more than the value;

Table 542.2.5.1:1
Snug Tight Tension

Bolt diameter (in)	Snug tight tension, minimum (kip)
1/2	1
5/8	2
3/4	3
7/8	4
1	5
1 1/8	6
1 1/4	7
1 3/8	9
1 1/2	10

   4.4. Match mark the nut to the vertical line on the bolt calibrator faceplate;
   4.5. Using the calibrated manual torque wrench, tighten the bolt to at least the tension listed in Table 542.2.5.1:2, "Installation Tension." Measure and record the torque and the tension generated simultaneously with that torque. Measure torque with the nut in motion;

Table 542.2.5.1:2
Installation Tension

Bolt diameter (in)	Installation tension, minimum (kip)
1/2	12
5/8	19
3/4	28
7/8	39
1	51
1 1/8	56
1 1/4	71
1 3/8	85
1 1/2	103

4.6. Calculate the torque in accordance with the following equation:

$$V = \frac{T \times d}{4}$$

Where,

V is the calculated torque value
T is the measured tension in pounds
d is the bolt diameter in feet

Record the calculated value. The measured torque values must equal or be less than the calculated torque. Assemblies with measured torque values exceeding the calculated value fail the test; and

4.7. For assemblies passing Step 4.6, further tighten the bolt to the rotation listed in Table 542.2.5.1:3, "Required Rotation." Measure the rotation from the vertical line to the initial match marking in Step 4.4. Record the bolt tension.

Table 542.2.5.1:3
Required Rotation

Bolt length (L) measured in step 1	Required rotation (turns)
$L \leq 4d_b$	2/3
$4d_b < L \leq 8d_b$	1
$L > 8d_b$	1 1/3

Note: d_b = bolt diameter

Assemblies that fail before completing the required rotation by stripping or fracture fail the test.

Bolt tension measured at the required rotation must equal or exceed the values in Table 542.2.5.1:4, "Minimum Tension Requirements." Assemblies that do not meet this tension fail.

Table 542.2.5.1:4
Minimum Tension Requirements

Bolt diameter (in)	Tension, minimum (kip)
1/2	14
5/8	22
3/4	32
7/8	45
1	59
1 1/8	64
1 1/4	82
1 3/8	98
1 1/2	118

4.8. Loosen and remove the nut and examine the threads on the nut and bolt. Assemblies showing evidence of thread shear failure, stripping, or torsion failure fail.

542.2.5.2. Procedure for Rotational Capacity Tests for Short Bolts

The Contractor shall test bolts that are too short for a tension calibrator in accordance with these procedures:

Equipment Requirements:

1. A calibrated torque wrench and a spud wrench;
2. Spacers with a hole size no larger than 1/16 inch greater than the tested bolt;
3. A steel section with a normal size hole to install bolt. Any available splice hole with plate thicknesses that will provide the number of threads under the nut required in Step 3.1 of the following procedures is Acceptable.

   This procedure is as follows:

   3.1. Mark the steel section with lines at vertical and at 1/3 (120°) and 2/3 (240°) of a turn, clockwise from vertical;

   3.2. Put the nut on the bolt. Measure the bolt length and the distance from the end of the threaded shank to the underside of the bolt head when there are three (3) to five (5) full threads of the bolt between the bearing face of the nut and the bolt head;

   3.3. Put the bolt in the hole and install the required number of shim plates to produce the thread stick-out measured in Step 3.1. Always install one (1) washer under the nut;

   3.4. Snug using a hand wrench. Do not exceed 20% of the torque determined in Step 3.6 of this procedure;

   3.5. Match mark the nut to the vertical line on the steel section; and

   3.6. Tighten the bolt using the torque wrench by turning the nut to the rotation listed in Table 542.2.5.2:1, "Initial Required Rotation". Use a second wrench to prevent bolt head rotation during tightening. Record the torque required to reach this rotation. Measure torque with the nut in motion.

Table 542.2.5.2:1
Initial Required Rotation

Bolt length (L) measured in step 3.2	Required rotation (turns)
$L \leq 4d_b$	1/3
$4d_b < L \leq 8d_b$	1/2
$L > 8d_b$	2/3

Note: d_b = bolt diameter

Assemblies that exceed the torque values listed in Table 542.2.5.2:2, "Torque Requirements," fail.

Table 542.2.5.2:2
Torque Requirements

Bolt Diameter (in)	Torque foot-pounds, maximum
1/2	150
5/8	290
3/4	500
7/8	820
1	1230

Table 542.2.5.2:2
Torque Requirements

Bolt Diameter (in)	Torque foot-pounds, maximum
1 1/8	1500
1 1/4	2140
1 3/8	2810
1 1/2	3690

3.7. For assemblies that pass Step 3.5, further tighten the bolt to the rotation required in Table 542.2.5.2:3, "Final Rotation Requirements." Measure the rotation from the vertical line to the initial match marking in Step 3.4; and

Table 542.2.5.2:3
Final Rotation Requirements

Bolt length (L) measured in step 1	Required rotation (turns)
$L \leq 4d_b$	2/3
$4d_b < L \leq 8d_b$	1
$L > 8d_b$	1 1/3

Note: d_b = bolt diameter

3.8. Loosen and remove nut and examine the threads on the nut and the bolt. Assemblies showing evidence of thread shear failure, stripping, or torsional failure fail the test.

542.2.6 Reporting

The Contractor shall provide notarized manufacturer and distributor CTR and MTR for mill steel used to manufacture bolts, nuts and washers. The Contractor shall indicate the steel melting and manufacture location in the MTR.

The Contractor shall show test results, including zinc coating thicknesses, in the CTR. The Contractor shall show test performance locations and test dates in the CTR.

542.2.6.1 Manufacturer CTR

The Contractor shall provide CTRs from the bolt, nut, and washer manufacturers that include the following:

1. Lot numbers of each item tested;
2. Rotational capacity test results, rotational capacity lot numbers, and individual lot numbers of the items tested if performed by the manufacturer;
3. Results of all other required tests; and
4. Locations where the bolt assembly components were manufactured.

542.2.6.2 Distributor CTR

The Contractor shall provide CTR from the bolt, nut, and washer distributors that include:

1. Documentation required in Section 542.2.6.1, “Manufacturer CTR”;
2. Rotational capacity test results, rotational capacity lot number, and individual lot numbers of the items tested if performed by the distributor; and
3. A statement that the manufacturer’s CTR represents the same items.

542.2.7 Sampling and Testing by the Department

Before installation, the Project Manager may select two (2) bolts, nuts, and hardened washer assemblies from each rotational capacity lot and at least three (3) bolts, nuts, and hardened washers, for each diameter and grade of fastener for testing by the State Materials Bureau.

542.2.8 Shipping

The Contractor shall ship bolts, nuts, and washers from each rotational capacity lot in the same container. If there is only one (1) production lot number for each size of nut and washer, the Contractor may ship the nuts and washers in separate containers.

The Contractor shall permanently mark each container with the rotational capacity lot number.

542.3 CONSTRUCTION REQUIREMENTS

The Contractor shall fabricate the Materials, to be connected with High-Strength Bolts, in accordance with Section 541, “Steel Structures”.

The Contractor shall blast clean steel faying surfaces in accordance with SSPC-SP 10.

The Contractor shall ensure that the bolted part surfaces adjacent to the bolt head and nut are parallel within the three (3) degrees for parallel surface rolled steel members. The Contractor shall use beveled washers on surfaces with more than a 1:20 slope for proper seating. The Contractor shall use bolted parts that fit solidly together when assembled. The Contractor shall not use gaskets or other flexible Material.

The Contractor shall erect joints and splices with cylindrical erection pins and bolts in accordance with Section 541, “Steel Structures.” The Contractor shall use high strength bolts instead of erection bolts if necessary. These can be left in place, provided they are not loosened and retightened.

542.3.1 Installation of Bolts

The Contractor shall ensure that bolt, nut and washer combinations are from the same rotational capacity lot.

542.3.2 Lubrication

The Contractor shall ensure that black bolts are oily to the touch when delivered and installed.

Secondary lubrication, by any party other than that which certified the assembly lot, is not permitted on a “twist-off” style bolt assembly lot, unless under the direction of the manufacturer.

If relubrication is permitted, the Contractor shall clean and relubricate weathered or rusted bolts and nuts before installation. The Contractor shall retest recleaned or relubricated bolt, nut, and washer assemblies.

Before installing galvanized nuts, the Contractor shall inspect the nuts to ensure the threads are properly lubricated. If lubricant is not visible or if tensioning indicates that thread friction is too high, the Contractor shall replace the bolt and nut with an unused lubricated bolt or if allowed apply an approved lubricant to the

remaining threads before installation.

542.3.3 Method of Installation

Wherever practical, the Contractor shall place the nut where it is not visible from the Traveled Way. When one end of a bolted assembly is embedded in concrete, the Contractor shall place the assembly so the nut end is in the concrete.

When tightening connections involving several bolts, The Contractor shall draw together plies of the steel by snugging the bolts before starting the tightening operations.

The Contractor shall prevent the stationary element from turning.

For oversized or slotted holes, the Contractor shall place additional hardened washers between the bolted Material and the fastener.

The Contractor shall not reuse bolts previously tightened. Touching up or re-tightening bolts that may have been loosened by the installation of adjacent bolts shall not be considered a reuse.

542.3.3.1 "Twist-off" Style Bolt Installation

The Contractor shall snug all bolts within the connection without severing the splined ends, drawing all plies of the connection together. If a splined end is severed prior to all bolts within the connection being snugged, the Contractor shall remove and replace severed end bolts. After all bolts within the connection are snug tight, the Contractor shall pretension all bolts within the connection with a calibrated "twist-off" style tension control bolt installation wrench, progressing systematically from the most rigid part of the connection to its free edges.

542.3.3.2 Turn-of-Nut Bolt Installation

The Contractor shall snug all bolts within the connection, drawing all plies of the connection together. The Contractor shall give bolts a suitable match-mark and tightened additionally by the applicable amount of nut rotation specified in Table 542.3.3.2:1, "Nut Rotation from Snug-Tight Condition", progressing systematically from the most rigid part of the connection to its free edges. During this operation, there shall be no rotation of the part not turned by the wrench. Nut rotation is relative to the bolt, regardless of the element being turned. For bolts installed by 1/2 turns and less, the tolerance is 0 to 30 degrees; for bolts installed by 2/3 turn or more, the tolerance is 0 to 45 degrees.

Table 542.3.3.2:1
Nut Rotation from Snug-Tight Condition

Bolt Length[2]	Disposition of Outer Faces of Bolted Parts[1]		
	Both faces normal to bolt axis	One face normal to bolt axis, other sloped not more than 1:20[3]	Both faces normal to bolt axis, other sloped not more than 1:20[3]
Not more than $4d_b$	1/2 turn	1/2 turn	2/3 turn

Table 542.3.3.2:1
Nut Rotation from Snug-Tight Condition

Bolt Length[2]	Disposition of Outer Faces of Bolted Parts[1]		
	Both faces normal to bolt axis	One face normal to bolt axis, other sloped not more than 1:20[3]	Both faces normal to bolt axis, other sloped not more than 1:20[3]
More than $4d_b$ but not more than $8d_b$	1/2 turn	2/3 turn	5/6 turn
More than $8d_b$ but not more than $12d_b$	2/3 turn	5/6 turn	1 turn

Notes:
1. Nut rotation is relative to bolt regardless of the element (nut or bolt) being turned. For all required nut rotations, the tolerance is plus 60 degrees (1/6 turn) and minus 30 degree;
2. When the bolt length exceeds $12d_b$, the required nut rotation shall be determined by actual testing in a suitable tension calibrator that simulates the conditions of solidly fitting steel;
3. Beveled washer not used; and
4. d_b = bolt diameter.

542.3.4 Quality Control Inspection

When turn-of-nut method is used, the Contractor shall use an inspection wrench to inspect the tightened bolts. If the inspection wrench is a torque wrench, the Contractor shall tighten each calibration test bolt in the calibration device to the minimum tension specified for its size listed in Table 542.3.4:1, "Bolt Tension'. The Contractor shall then apply the inspection wrench to the tightening bolt, and the torque necessary to turn the nut or bolt head five (5) degrees in the tightening direction shall be determined. The average torque measured in the tests of three (3) bolts shall be taken as the job-inspection torque. The torque wrench shall be a dial torque wrench and shall have been checked for accuracy within one (1) year of its current use by the manufacturer or an approved testing agency.

Table 542.3.4:1
Bolt Tension

Bolt Diameter	Required min. Bolt Tension (kips)
	ASTM A 325 Bolts
1/2	12
5/8	19
3/4	28

Table 542.3.4:1
Bolt Tension

Bolt Diameter	Required min. Bolt Tension (kips)
	ASTM A 325 Bolts
7/8	39
1	51
1 1/8	56
1 1/4	71
1 3/8	85
1 1/2	103

The Contractor shall inspect bolts that have been tightened in the Structure by applying, in the tightening direction, the inspection wrench and its job-inspection torque to ten percent (10%) of the bolts but not fewer than two (2) bolts within a connection. If no nut or bolt head is turned by this application of the job-inspection torque, the connection will be Accepted as properly tightened. If any nut or bolts head is turned by the application of the job-inspection torque, the Contractor shall apply this torque to all bolts in the connection. The Contractor shall retighten and reinspect bolts whose nut or head is turned by the job-inspection torque or all bolts in the connection may be retightened and the connection resubmitted for inspection.

The Contractor shall submit a written record of the inspection results, indicating the location, test dates, and the results of each inspection.

542.3.5 Quality Assurance Inspection

The Department may visually inspect every bolt for gaps. For "twist-off" style bolts, the Department may visually inspect any or all bolts to verify the splined ends have been properly severed. If "twist-off" style bolts are not used, the Department may require the Quality Control inspection be performed in the presence of a representative of the Department. If the inspections indicate improper installation, the Project Manager may reject the connection.

542.4 METHOD OF MEASUREMENT – Reserved

542.5 BASIS OF PAYMENT

The Department will pay for high strength bolts as a part of Structural Steel tonnage in accordance with Section 541, "Steel Structures."

December 20, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 543: METAL RAILING

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to Section **543.5.1: Work Included in Payment:**

4. Two (2) Bridge number plates for every Bridge.

February 8, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 548: COATING OF CONCRETE

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the first paragraph of **Section 548.1 Description** and replace with the following:

This Work consists of applying Coating of Concrete-Stain, Coating of Concrete-Paint or Coating of Concrete-Textured Coating as designated in the Contract.

Delete the first paragraph of **Section 548.2 Materials** and replace with the following.

The following coating of concrete systems are included in this Specification:

1. Coating System 548-1: colored concrete stain/sealer;
2. Coating System 548-2: paint; and
3. Coating System 548-3: textured coating.

Delete the second paragraph of **Section 548.2 Materials.**

Delete the first paragraph of **Section 548.3.1 General** and replace with the following:

Prior to application of a Coating of Concrete System, , the Contractor shall apply a Class 2, Rubbed Surface Finish in accordance with Section 511.3.9.3, “Class 2, Rubbed Surface Finish”.

May 9, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 560: ELASTOMERIC BEARING PADS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 560.5: Basis of Payment and replace** with the following**:**

Pay Item	**Pay Unit**
Elastomeric Bearing Pads	Each

December 7, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 562: BRIDGE JOINT STRIP SEALS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 562.1: Description** in its entirety and replace with the following**:**

This Work consists of providing, assembling, and installing Bridge joint strip seal assemblies and in accordance with the Standard Drawings for Bridge Joint Strip Seals.

In addition, this Work consists of replacing and installing Bridge joint elastomer on existing Bridge joints in accordance with the Standard Drawings for Bridge Joint Strip Seals.

Add the following to **Section 562.4: Method of Measurement:**

Bridge Joint Elastomer will be measured by the Linear Foot.

Add the following Pay Item to **Section 562.5: Basis of Payment:**

Pay Item	**Pay Unit**
Bridge Joint Elastomer	Linear Foot

Add the following to **Section 562.5.1: Work Included in Payment:**

8. Bridge Joint Elastomer.

February 20, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 571: STRUCTURAL PLATE STRUCTURES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 571: STRUCTURAL PLATE STRUCTURES** in its entirety.

May 14, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 601: REMOVAL OF STRUCTURES AND OBSTRUCTIONS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 601.3.2 Removal of Bridges, Culverts and Other Drainage Structures:**

601.3.2.1 Partial Removal of Bridge Elements
If partial removal is specified, the partial removal shall be in accordance with Section 533.3, "Construction Requirements".

Add the following to **Section 601.5.1: Work Included in Payment**:

4. Means and methods associated with partial removal of Bridge elements.

July 17, 2023

SPECIAL PROVISIONS
MODIFYING
SECTION 607: FENCE

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 607.2: MATERIALS**

607.2.7 Channel Fence

607.2.7.1 Channel Fence
The Contractor shall provide two (2) inch by four (4) inch by 50 inch high V-mesh wire fence as indicated on the Plans. Channel Fence horizontal wire shall be two (2) 12.5 gauge wires twisted to form cables on four (4) inch spacing from top to bottom. Channel Fence vertical wire shall be 14 gauge securely wrapped around horizontal cables to form a diamond pattern.

607.2.7.2 Brace Wire
The Contractor shall provide steel cables with minimum diameter of 0.3125 inch (5/16 inch) to support fence fabric at top and bottom.

607.2.7.3 Metal Posts
The Contractor shall provide four (4) inch diameter by 14 feet long Schedule 40 steel pipe. Equivalent post Materials may be substituted for Schedule 40 steel pipe with approval of the Project Manager.

Add the following to **Section 607.3: CONSTRUCTION REQUIREMENTS**

607.3.10 Channel Fence
The Contractor shall set posts plumb. The Contractor shall install posts by driving or pushing, without setting the posts in concrete.

The Contractor shall install Channel Fence lines as indicated on the Plans. In the event fence posts cannot be fully embedded to a minimum depth of eight (8) feet, the Contractor may adjust the location of the post by one (1) foot either direction along the fence line. Project Manager to consult with Drainage Design Bureau for any other installation issues.

After the posts are installed to their final depth, the Contractor shall cut holes in posts four (4) inches from the ground and 42 inches above the bottom hole. The Contractor shall string brace wire through the line posts and securely fasten to the end posts using cable clamps. The Contractor shall weave cable through V-mesh wire fence at two (2) foot intervals top and bottom and tensioned to adequately support fence fabric between posts.

The Contractor shall place the V-mesh wire fence on the upstream side of the posts and support the fence fabric with the top and bottom brace cables. The Contractor shall tie the V-mesh wire fence to the fence posts

January 23, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 602: SLOPE AND EROSION PROTECTION STRUCTURES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

602.2.1 Classifications
Delete **Table 602.2.1:1** and replace with the following:

Table 602.2.1:1
Riprap Classifications and Gabion Requirements

Class	Description	Stone Volume (cubic feet)		Minimum Dimension [a] (inches)	Nominal D50 (feet)	Minimum Blanket Thickness (feet)
		Minimum	Maximum			
A	Wire enclosed riprap	1/6	2/3	4	0.75	--
A	Non-enclosed riprap	1/6	2/3	4	0.75	1.25
B [b]	Non-enclosed riprap	1	2	6	1.25	2.0
C [b]	Non-enclosed riprap	2	4	9	1.5	2.25
D	Derrick stone	See Table 602.2.1:2				3.0
E	Grouted riprap	1/3	1	3	1.0	1.5
F	Grouted riprap	1	2	6	1.25	2.0
G	Rock plating	--	--	4-8 [c]	--	1.0
N/A	Wrapped rockfacing	--	--	1	--	--
N/A	Gabions	--	--	4-8 [d]	--	--

[a] Minimum size in the least dimension.

[b] Class B and C stone – at least two (2) Fractured Faces.

[c] 70% to 80% of the stone: at least four (4) inches but not more than eight (8) inches in the smallest dimension; 30% to 20% of the stone: no larger than four (4) inches in any dimension. Minimum of three (3) fractured faces.

[d] 70% to 80% of the stone: at least four (4) inches but not more than eight (8) inches in the smallest dimension; 30% to 20% of the stone: no larger than four (4) inches in any dimension.

Add the following to **602.5 Basis of Payment**:

Pay Item	**Pay Unit**
Riprap Class A (Non-Enclosed)	Cubic Yard

June 17, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 603: TEMPORARY EROSION AND SEDIMENT CONTROL

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 603: TEMPORARY EROSION AND SEDIMENT CONTROL** in its entirety and replace with the following:

603.1 DESCRIPTION

This Work consists of preparing a Storm Water Pollution Prevention Plan (SWPPP), constructing, inspecting, and maintaining erosion, sediment control, and storm water pollution prevention facilities for the discharge of storm water associated with construction activity. This Work includes construction phase activities through final stabilization.

The Contractor shall follow requirements in this section regardless of a watercourse's jurisdictional status when Projects are over one (1) acre or contain disturbed slopes with bare ground steeper than 3:1 regardless of acreage. Projects less than one (1) acre that do not have slopes steeper than 3:1 are not required to have SWPPP measures. The Contractor shall prevent erosion, sediment, and construction related pollutants from leaving the Project and protect channels, conveyances and waterbodies within or adjacent to the Project. Channels shall include any ephemeral, intermittent, and perennial watercourse including arroyos, acequias, ditches, drains and conveyances.

603.1.1 Storm Water Pollution Prevention Plan

The Contractor's SWPPP shall satisfy the requirements in accordance with Section 632.3, "Construction Requirements", the current Construction General Permit (CGP), applicable Environmental Protection Agency (EPA) Municipal Separate Storm Sewer System (MS4) Permit and shall contain the following sections, forms, and information sheet(s):

1. Identification of other site operators;
2. Storm water team, including at least two (2) EPA-certified inspectors consisting of one (1) from the Contractor and one (1) from the Department;
3. Nature of construction activities;
4. Site map with a maximum disturbed area approved by the Project Manager that the Contractor shall not exceed;
5. Table of Materials including revegetation and initial soil stabilant that the Contractor expects to use for SWPPP based on the maximum disturbed area;
6. Non-storm water discharges;
7. Sequence and estimated dates of construction activities;
8. Temporary Erosion and Sediment Control Plan (TESCP) and description of storm water control measures (construction phase and final stabilization);
9. Natural buffer documentation;
10. Perimeter controls for a "linear construction site";
11. Stabilization measures;
12. Procedures for inspection, maintenance, and corrective action;

13. Procedures for turbidity benchmark monitoring from dewatering discharges (if applicable);
14. Documentation of compliance, including documentation of inspections, emergency related measures, and applicable State, local, and federal requirements;
15. Staff training;
16. Pollution prevention procedures;
17. List of SWPPP certified personnel and documentation of their certifications; and
18. Post-authorization additions to the SWPPP.

The Contractor shall use the most current version of the forms required for the SWPPP:

1. CGP Site Inspection Report template EPA form (for meeting the requirements in Part 4.7 of the 2022 CGP);
2. CGP Dewatering Inspection Report template EPA form (preparing inspection reports related to dewatering activities required by Part 4.6.3 of the 2022 CGP);
3. CGP Corrective Action Log template EPA form (recording the required corrective action documentation that meet the requirements in Part 5.4 of the 2022 CGP);
4. Notice of Intent (NOI);
5. Contractor certification for NPDES "General Permit for Storm Water Discharges" from construction sites EPA form;
6. Notice of Termination (NOT); and
7. Other forms as authorized by the Department or EPA.

A SWPPP Information Sheet provided by the Department will include the following:

1. NOI inputs;
2. General notes;
3. Soil loss model (if applicable); and
4. MS4 retention (if applicable).

The Department will include the SWPPP information sheet on the Plans.

603.1.1.1 Temporary and Final Erosion and Sediment Control Plan

The Contractor's construction phase TESCP, as part of the SWPPP, shall depict the location, type, and length of temporary erosion control measures, off-site flows, discharge locations, and flow paths within the Work area of the Right of Way on construction phasing Plan sheets.

The Department will prepare the final stabilization Erosion and Sediment Control Plan (ESCP) sheets depicting the location, type, and length of temporary erosion control measures, off-site flows, discharge locations, and flow paths within the Right of Way on Plan sheets at the final placement after all construction activities haven been Accepted.

603.1.1.2 Department Responsibilities

The Project Manager will assign an EPA-certified (or equivalent) Department representative (with qualification form per CGP section 9.6.1.c) experienced and trained in implementing Best Management Practices (BMPs). The Department will include a SWPPP Information and the final stabilization ESCP on the Plans. The SWPPP Information Sheet will include an NOI Inputs table that provides information needed to complete the NOI.

The Department's final stabilization ESCP Plan sheets will include the following:

1. Site map(s);
2. Existing and new Structures;
3. Drainage flow patterns and discharge locations;
4. Existing and proposed Roadway grades;
5. Approximate slopes;
6. Areas of soil disturbance;
7. Major controls locations;
8. Structural practices;
9. Surface waters (including wetlands);
10. Conditions before and after construction;
11. Right of Way lines including easements; and
12. Detours outside of the Right of Way.

603.1.1.3 Contractor Responsibilities

Before disturbing any soil, the Contractor shall prepare and submit to the Project Manager and the Department's Roadside Environment Design Manager or representative, a SWPPP based on the planned construction phasing and schedule. The Contractor shall prepare amendments to the SWPPP as Work progresses or as phasing or scheduling changes are made. The Contractor's TESCP shall be developed by the Contractor's SWPPP certified inspector for each construction phase, complying with provisions of the NPDES CGP and shall include the following activities:

1. Develop the SWPPP using a combination of structural, non-structural, and vegetative BMPs appropriate for the identified location to control erosion and sedimentation and manage storm water during construction activities. Refer to the recommendations in the current version of the Department's National Pollutant Discharge Elimination System Manual: Storm Water Management Guidelines for Construction and Industrial Activities;
2. Include proposed methods for minimizing or eliminating pollution of streams, lakes, reservoirs, canals, and other water impoundments from storm water discharge associated with construction activities;
3. Do not start earth-disturbing activities until the Contractor developed SWPPP has been submitted and the NOI is active; and
4. Maintain the SWPPP in accordance with the NPDES CGP and this Section until final grading, erosion control and seeding operations have been completed.

603.1.2 Retention of Records

The Contractor shall retain and maintain SWPPP changes as required by the NPDES CGP and this Section. The Contractor shall include copies of the permit language and inspection and maintenance reports in the SWPPP. The Contractor shall prepare inspection and maintenance reports from commencement of earthwork activities to Project completion. The Contractor shall deliver the SWPPP to the Project Manager at Project completion. The Contractor shall ensure that these records are available to the public at all timesand shall retain records for a minimum of three (3) years after the Contractor's NOT is Accepted.

603.1.3 Notice of Intent (NOI)

The Contractor shall prepare and submit an electronic NOI. The Contractor shall provide a copy of the NOI that meets the NPDES CGP requirements for discharge of storm water associated with construction activities to the Project Manager. The Contractor shall provide the NOI and attachments to the Project Manager at least three (3) weeks before the start of construction.

The Department and the Contractor shall each prepare and submit separate NOIs to the EPA, designating the status of owner/operator. The Contractor shall not begin earth-disturbing activities until both NOIs are listed on the EPA website as “active.” The EPA will post NOI approvals on their website.

603.1.4 Off-Site Storm Water Pollution Prevention Plan

The Contractor shall prepare and submit a SWPPP, NOI, and NOT, if required, to appropriate agencies for Work performed outside the Project Right of Way. The Contractor shall be responsible for all associated NPDES CGP requirements for the offsite locations. If the offsite location is on private land, the Contractor shall notify the landowner of NPDES CGP compliance requirements and requirements in accordance with Section 632.3.6, “Revegetation of Areas Outside the Project Limits”. The Contractor shall provide a copy of each off-site submittal to the Project Manager.

603.2 MATERIALS

603.2.1 General

The Contractor shall provide Materials for erosion, sediment control, and storm water pollution prevention measures that consist of siltation fences, Erosion Control Socks, rock, riprap, or other Acceptable measures approved by the Project Manager.

603.2.2 Pipe

The Contractor shall provide pipes in accordance with Section 570, “Pipe Culverts”.

603.2.3 Riprap

The Contractor shall provide riprap and rock plating in accordance with Section 602, “Slope and Erosion Protection Structures.”

603.2.4 Temporary Soil Stabilant

The Contractor shall provide a Temporary Soil Stabilant in accordance with Section 632, “Revegetation”. The Contractor shall ensure that the Temporary Soil Stabilant contains an anti-foaming agent and color additive to assist in its uniform application and that the color disappears from the surface within 36 hours after application of a product on the Approved Products List (APL).

603.2.5 Composted Mulch Socks

The Contractor shall furnish composted mulch Material in accordance with Section 632, “Revegetation”. The screened compost mulch and wood chips shall be premixed by a provider on the APL.

603.2.5.1 Containment Mesh

The Contractor shall furnish containment mesh found on the APL that is made of 100 percent (100%) biodegradable plant-based fiber Material such as cotton, jute, sisal, burlap, wood-based yarn, coir or other Acceptable Material as directed by the Roadside Environment Design Manager or representative.

The Contractor shall furnish containment mesh that does not exceed 3/8 inch in diameter and is not greater than nine (9) inches in height after being packed.

603.3 CONSTRUCTION REQUIREMENTS

603.3.1 General

The Contractor shall apply appropriate erosion, sediment, and dewatering control measures for construction activities as per the Accepted Contractor developed SWPPP.

The Contractor shall install temporary erosion and sediment control features and maintain them until final grading, erosion control, and seeding operations are completed.

The Contractor shall incorporate permanent erosion and sediment control measures, such as riprap pads or other forms of energy dissipaters at the outlets of Structures, into the Project at the earliest practical time, as directed by the Project Manager.

603.3.1.1 Non-Conformance

The Department will issue a corrective action/non-conformance when the Contractor fails to comply with the Contractor developed SWPPP; or fails to maintain CGP compliance, including, but not limited to the following:

1. Fails to maintain temporary erosion and control measures in accordance with Section 603.3.6, "SWPPP Inspection and Maintenance";
2. Fails to document inspection and maintenance activities; and
3. Fails to document in the SWPPP Corrective Action Report field changes to Erosion Control measures as directed in writing by the Project Manager.

If the Contractor fails to comply with the CGP or this Section, the Department may issue a corrective action/non-conformance in accordance with Sections 107.13, "Contractor's Responsibility for Damage to Environmental and Cultural Resources" and 107.14.3," Clean Water Act".

603.3.2 Contractor's Operations

The Contractor shall keep construction activity to a minimum within the Project Right of Way, adjacent to the Project, to prevent damage to vegetation. The Contractor shall repair damage or disturbance to areas not necessary for construction of the Project at no additional cost to the Department, including revegetation and Temporary Soil Stabilant exceeding what was approved in documents submitted in accordance with Section 603.1.1, "Storm Water Pollution Prevention Plan."

The Contractor shall keep construction areas in an orderly condition and promptly dispose of refuse and discarded Materials.

As directed by the Project Manager, the Contractor shall provide erosion and sediment control measures necessary to correct negligent or improper installation, at no additional cost to the Department.

603.3.2.1 Sequence of Operations

Before Work begins, the Project Manager, the Contractor and the storm water team in accordance with Section 603.1.1, "Storm Water Pollution Prevention Plan", will conduct a site review for the implementation of the proposed SWPPP. The Roadside Section manager or representative shall be invited to the site review.

The Contractor shall coordinate the placement and maintenance of BMPs required for CGP compliance before earth-disturbing Work begins.

603.3.2.2 Watercourse Protection

The Contractor shall provide filtration or settling basins to treat water used to wash aggregate or water used for similar operations.

The Contractor shall locate and construct waste disposal areas and haul roads to prevent sediment from entering streams and water impoundment areas or leaving the Project.

The Contractor shall not operate mechanized Equipment in perennial streams, unless construction in a channel is unavoidable.

The Contractor shall use temporary Bridges or other crossing Structures constructed of non-erodible Material, where frequent stream crossings are necessary.

The Contractor shall clear falsework, piling, debris, and other obstructions placed during construction from streambeds, arroyos, and watercourses when no longer required. The Contractor shall not allow waste from haul truck cleaning to drain into watercourses.

The Contractor shall provide the necessary buffer protection for adjacent surface waters as required by the NPDES CGP.

603.3.3 Temporary Soil Stabilant Application

The Contractor shall apply Temporary Soil Stabilant to disturbed non-road-bed bare ground not being worked. The Contractor shall apply Temporary Soil Stabilant within one (1) Working Day after Work ceases, unless construction will resume within 14 Days after Work ceases. The Contractor shall reapply Temporary Soil Stabilant to areas of continued erosion or areas that remain bare within four (4) weeks after the initial application and at least once every 4 (four) weeks throughout the life of the Project or as directed by the Project Manager. The Contractor shall maintain stabilization of disturbed areas created by Contractor activity not necessary for the completion of the Work in accordance with Section 603.3.2, “Contractor’s Operations” at no additional cost to the Department including parking areas, clearing beyond what is required for the Work, Contractor-travel on non-roadbed areas, and other areas created by the Contractor for their own convenience.

The Contractor shall follow the manufacturer’s recommendations for storage and application of the Temporary Soil Stabilant. The Contractor shall maintain the rate of application recommended by the manufacturer. If the Temporary Soil Stabilant does not produce the required results, the Project Manager and the Roadside Section Manager or representative may modify the manufacturer’s application rate at no additional cost to the Department.

603.3.4 Composted Mulch Socks

The Contractor shall install the Composted Mulch Socks near the downstream perimeter of the disturbed area as shown on the SWPPP to intercept sediment from sheet flow or as inlet protection as directed by the Project Manager. The Contractor shall maintain close contact between the earth and Composted Mulch Socks by removing remaining vegetation, rocks, debris, and dirt clods. The Contractor shall interlock and overlap Composted Mulch Socks at the ends.

The Contractor shall anchor the Composted Mulch Socks to prevent displacement during rain events and to prevent flow under the Composted Mulch Socks. The Contractor shall use two (2) inch by two (2) inch wooden

stakes, APL product, or as approved by the Project Manager. The Contractor shall place wooden stakes at ten (10) foot maximum spacing on all flat areas and four (4) foot maximum spacing on slopes to prevent the Composted Mulch Socks from sagging. The Contractor shall drive stakes in the ground 12 inches with three (3) inches extending above the Composted Mulch Socks.

To prevent stormwater from circumventing the edge of the perimeter control, the Contractor shall install the perimeter control on the contour of the slope and extend both ends of the control up slope (e.g., at 45 degrees) for a minimum of two (2) feet vertically, forming a crescent rather than a straight line.

603.3.5 Earthwork Operations

The Contractor shall protect slopes as earthwork operations progress.

The Contractor shall maintain and protect the earthwork in Roadway sections through all construction stages to prevent sediment from leaving the construction limits.

The Contractor shall provide temporary slope drain facilities that can collect runoff and carry it to the slope bottoms. The Contractor shall use drain Materials capable of length change as earthwork operations progress.

603.3.6 SWPPP Inspection and Maintenance

The Contractor shall inspect and maintain the Project site for NPDES CGP compliance during the Project. The Contractor shall inspect and maintain installations at the following frequencies:

1. At least once every seven (7) Days;
2. Once every 14 Days and within 24 hours of a 0.25 inch or greater rainfall event; and
3. For arid, semi-arid, or drought-stricken areas, as defined in Appendix A of the NPDES CGP, the frequency of inspections may be reduced to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. This applies only during the seasonally dry period or a period in which drought is occurring. The Contractor shall document that they are using this reduced schedule and the beginning and ending dates of the seasonally dry period in the SWPPP.

The Contractor's maintenance Work shall include, but is not limited to, repair of damaged installations, removal of trapped sediment, and cleaning of any silt fence. The Contractor shall remove accumulated silt when the control installation becomes 50 percent (50%) filled. The Contractor shall inspect disturbed areas, Material storage areas, discharge locations, and structural control measures. The Contractor shall inspect vehicle entrances and exits for Material being tracked off-site. The Contractor shall document each inspection on the EPA CGP Site Inspection Report. The Contractor shall submit the Site Inspection Report form signed by EPA-certified (or equivalent) personnel to the Project Manager within 24 hours after the inspection. The Contractor shall include copies in the SWPPP. The Site Inspection Report form should be the same form listed on the EPA website.

The Contractor shall install a rain gauge at the Project site to track rainfall amounts for the inspection schedule and install the required SWPPP sign in accordance with the CGP section 1.5.

The Contractor shall designate the person responsible for the SWPPP on the qualification form provided by the Department. The Contractor shall ensure that the person is an EPA-certified SWPPP inspector and document the responsible person's experience and training on the qualification form (per CPG section 9.6.1.c). The Contractor shall include the signed qualification form with the SWPPP.

The Contractor shall install missing sediment erosion control measures and/or repair damaged erosion and sediment control installations by the close of the next Working Day following an inspection or following notification by the Project Manager that repairs are required. The Roadside Environment Design Manager or representative may conduct sight inspections for SWPPP compliance and notify the Project Manager in writing when corrective actions are needed.

If a damaged erosion control installation could result in sediment discharge into a live stream, water impoundment, or other body of water, the Contractor shall initiate repairs within 24 hours or sooner, as necessary, or as directed by the Project Manager.

The Contractor shall maintain erosion and sediment control installations specified to remain following completion of the Work until the Project is completed.

603.3.7 Removal of Control Installations

The Contractor shall remove and dispose of temporary erosion and sediment control installations and features from the Project in accordance with Section 603.1.1.3 "Contractor Responsibilities", unless otherwise specified in the Contract or directed by the Project Manager. After removing temporary erosion control installations, the Contractor shall restore ground lines, cover, and features as closely as possible to original condition.

The Contractor may deposit removed sediment at locations within the Right of Way, if approved by the Project Manager. Where removed sediment is deposited in previously undisturbed areas, the Contractor shall reseed those areas at no additional cost to the Department.

603.3.8 Notice of Termination (NOT)

The Contractor shall prepare and submit a NOT to the EPA within 30 Days after Project completion, indicating that the operator of the Project has changed to the Department. The Contractor shall provide a copy of the submittal to the Project Manager.

603.4 METHOD OF MEASUREMENT

The Department will measure Rock Check Dam along the crest of the dam.

603.5 BASIS OF PAYMENT

Pay Item	Pay Unit
SWPPP Plan Preparation and Maintenance	Lump Sum
Temporary Soil Stabilant	Acre
Rock Check Dam	Linear Foot
Composted Mulch Socks	Linear Foot

603.5.1 Work Included in Payment

The following Work and items will be considered as included in the payment for the above item(s) and will not be measured or paid for separately:

1. Cleaning and maintenance of the temporary erosion and sediment control measures;
2. Posts, hardware, and appurtenances of the temporary erosion and sediment control measures;
3. Riprap for pipe slope drains and sediment traps;
4. Excavation and disposal of sediment deposits;

5. Removal and disposal of temporary erosion and sediment control measures:
6. Subsequent applications of Temporary Soil Stabilant due to unsatisfactory results as determined by the Project Manager;
7. Removal and replacement of the BMP at the same location due to construction;
8. Relocation of BMPs during phasing and final placement; and
9. CMS stakes and overlaps.

603.5.2 Partial Payments

The Department will make monthly partial payments for SWPPP Plan Preparation and Maintenance upon receipt and Acceptance of the Contractor SWPPP. Monthly partial payments will be based on the rate of progress of the Project, less previous partial payments for this item. The Department will calculate partial payments in accordance with the following equation:

$$P = [(A \times L)/B] - C$$

Where,

P is the partial payment during the progress of the Project;
A is the total number of Days charged the Contractor toward completion of the Project;
L is the Total Bid Amount for SWPPP Plan Preparation and Maintenance;
B is the Contract Time; and
C is the total amount of previous partial payments for this item.

May 14, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 606: METAL BARRIER, CABLE BARRIER AND CONCRETE WALL BARRIER

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the first paragraph of **Section 606.2.2.2: Submittal** in its entirety and replace with the following:

A minimum of three (3) weeks prior to the Pre-Construction Conference, the Contractor shall submit three (3) sets of manufacturer's most current Shop Drawings and product manuals covering installation and maintenance of the installation to the Project Manager.

Delete **Section 606.2.7: Materials Certification** in its entirety.

Delete the first paragraph of **Section 606.3.1: Guardrail Installation** in its entirety.

Delete 9. from **Section 606.5.1: Work Included in Payment** and replace with the following:

9. Hot/Warm Mix Asphalt Material, placement and compaction;

every 12 to 18 inches. The Contractor shall bury the bottom edge of fence fabric.

Delete **Section 607.5: BASIS OF PAYMENT i**n its entirety and replace with the following:

Pay Item	**Pay Unit**
Barbed Wire Fence ___ft	Linear Foot
Game Fence ___ft	Linear Foot
Woven Wire Fence ___ft	Linear Foot
Chain Link Fence ___ft	Linear Foot
Chain Link Security Fence ___ft	Linear Foot
Vinyl-Coated Chain Link Fence ___ft	Linear Foot
Snow Fence ___ft	Linear Foot
Channel Fence	Linear Foot
Pedestrian/Bicycle Railing ___ft	Linear Foot
Pedestrian Screening Fence Type ____ft	Linear Foot
Post and Cable Access Fence ___ft	Linear Foot
Remove and Rebuild (type) Fence	Linear Foot
Standard Gate ___ft	Each
Barbed Wire Gate, ___ft	Each
Chain Link Gate, ___ft Span	Each
Chain Link Gate, ___ft Span by ___ft Rise	Each
Pipe Gate ___ft	Each
Water Gap Gate	Linear Foot
Turnstile Gate ___ft	Each
Remove and Reset Gate	Each
Stile and Post Wire Trap	Each
Braces/Corner Posts	Each

Delete 9. from **Section 607.5.1: Work Included in Payment.**

September 10, 2021

SPECIAL PROVISIONS
MODIFYING
SECTION 610: CATTLE GUARDS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 610: CATTLE GUARDS** in its entirety and replace with the following:

610.1 DESCRIPTION
This Work consists of constructing precast concrete Cattle/Game Guards or steel frame Cattle/Game Guards.

610.2 MATERIALS

610.2.1 General
The Contractor shall provide Cattle/Game Guards and grids in accordance with the Contract. The Contractor shall provide individual Cattle/Game Guards with grids of identical type having the same shapes, dimensions, and weight of the steel members.

The Contractor may use steel frame Cattle/Game Guards as an alternate to precast concrete Cattle/Game Guards at turnouts or at other locations in accordance with the Contract.

The Contractor shall permanently cap all vertical metal pipes.

If the Contract specifies precast concrete Cattle/Game Guards, the Department will not allow substitutions.

610.2.2 Precast Concrete Cattle and Game Guards
The Contractor shall use Class AA concrete in accordance with Section 510, “Portland Cement Concrete.”

The Department will reject Cattle/Game Guards with cracks, chips, spalls, or honeycombed or patched areas in excess of 30 in^2; or those that fail to meet the minimum strength requirements.

The Contractor shall provide Shop Drawings in accordance with Section 105.2, “Plans, Working Drawings” and in accordance with the current edition of the ACI Detailing Manual.

The Contractor shall fabricate precast concrete Cattle/Game Guards steel grids and other steel appurtenances in accordance with Section 541, “Steel Structures.”

610.2.3 Steel Frame Cattle and Game Guards
The Contractor shall provide steel frame Cattle/Game Guards guard, grids and appurtenances in accordance with Section 541, “Steel Structures.”

610.2.4 Reinforcing Steel

The Contractor shall use Grade 60 reinforcing steel deformed bars in accordance with Section 540, "Steel Reinforcement."

The Contractor shall provide welded wire fabric in accordance with AASHTO M *55.*

610.2.5 Cattle and Game Guards Guard Grids and Hardware

The Contractor shall provide traffic grill units, warning devices, bolts, tie bolts washers, hardware, and other Materials in accordance with Section 541, "Steel Structures."

The Contractor shall provide grid units in accordance with AASHTO M 183.

The Contractor shall provide aluminum members in warning devices in accordance with the ASTM Specifications listed in Table 610.2.5:1, "Aluminum Members Warning Devices Standards."

Table 610.2.5:1
Aluminum Members Warning Devices Standards

Description	ASTM	Alloy	Temper
Tubing	B 429	6061	T-6
Fence angle	B 221	6061	T-6
Base plate	B 209	6061	T-6

610.3 CONSTRUCTION REQUIREMENTS

610.3.1 Concrete Footings and Foundations

The Contractor shall excavate or build with Embankment, level, and compact foundations for Cattle/Game Guards before installing the Cattle/Game Guards. The Contractor shall excavate wide enough to compact and test Material adjacent to the Cattle/Game Guards or backfill with flowable fill at no extra cost to the Department.

The Contractor shall finish uneven foundation surfaces to ensure full bearing of Cattle/Game Guards units. The Contractor shall compact Subgrade foundations in accordance with Section 207*,* "Subgrade Preparation."

If the Contractor finds unstable Material in footing foundations, the Contractor shall stabilize, or remove and replace with Material approved by the Project Manager.

The Contractor shall place a three (3) inches thick bedding of fine aggregate over the Subgrade and compact it to at least 95% of the maximum density in accordance with AASHTO T 180 (Modified Proctor), Method D (TTCP Modified). The Contractor shall place the Cattle/Game Guards unit on the fine aggregate bedding.

The Contractor shall finish the tops of concrete footings so that stringer-bearing surfaces receive the full bearing under each stringer.

610.3.2 Placement Requirements

The Contractor shall place the precast concrete Cattle/Game Guards in accordance with Section 511, "Concrete Structures." The Contractor may splice reinforcing bars over 30 ft long using a minimum 24-bar diameter lap.

The Contractor shall chamfer exposed edges of concrete ¾ inch.

The Contractor may use used steel members that are free of bends and in good condition, if approved by the Project Manager.

The Contractor shall fabricate grids so that the bottoms of the stringers are in a plane surface.

610.3.3 Protective Coating

The Contractor shall provide Cattle /Game Guards with a protective coating in accordance with Section 545, "Protective Coating of Miscellaneous Structural Steel."

610.3.4 Backfill

The Contractor shall perform the excavation, placement and compaction of select backfill in accordance with Section 206, "Excavation and Backfill for Culverts and Minor Structures."

610.4 METHOD OF MEASUREMENT - Reserved

610.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Cattle Guard	Linear Foot
Game Guard	Linear Foot

610.5.1 Work Included in Payment

The following Work and items, except when otherwise specified, will be considered as included in the payment for the main items, complete in place as detailed in the Contract, and will not be measured or paid for separately:

1. Shop Drawings;
2. Subgrade preparation, excavation, replacement of unstable Subgrade, placement and compaction of select backfill;
3. All steel reinforcement (Including welded wire fabric);
4. All Structural Steel, bearing pads, all connecting hardware and associated components; and
5. All warning devices, all field painting, and all appurtenances necessary to complete the Work.

September 22, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 618: TRAFFIC CONTROL MANAGEMENT

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete 10. from **Section 618.2.2: Duties.**

April 8, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 621: MOBILIZATION

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 621.5.1: Work Included in Payment** in its entirety and replace with the following:

The Department will pay the Contractor partial payments using the following precedure:

1. When one percent (1%) or more of the Total Original Contract Amount less Mobilization is earned, up to 25 percent (25%) of the amount Bid for Mobilization or three percent (3%) of the Total Original Contract Amount, whichever is less, will be paid;
2. When five percent (5%) or more of the Total Original Contract Amount less Mobilization is earned, up to 50 percent (50%), less previous amounts paid, of the amount Bid for Mobilization will be paid;
3. When 10 percent (10%) or more of the Total Original Contract Amount less Mobilization is earned, up to 75 percent (75%), less previous amounts paid, of the amount Bid for Mobilization will be paid;
4. When 25 percent (25%) or more of the Total Original Contract Amount less Mobilization is earned, up to 90 percent (90%), less previous amounts paid, of the amount Bid for Mobilization will be paid; and
5. When 50 percent (50%) or more of the Total Original Contract Amount less Mobilization is earned, up to 100 percent (100%), less previous amounts paid, of the amount Bid for Mobilization will be paid.

The total sum of all Mobilization payments shall not exceed the Total Original Contract Amount Bid for the item.

The Department will not make additional payments for demobiliation and remobilization due to shutdowns, whole or partial suspensions of the Work or for other Mobilization activities required for satisfactory completion of the Contract.

May 3, 2023

SPECIAL PROVISIONS
MODIFYING
SECTION 622: FIELD LABORATORIES AND FIELD OFFICES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 622.1: DESCRIPTION**:
The Contractor shall provide the Equipment required for the Field Laboratories in compliance with the applicable current TTCP manuals located on the following link:

http://dot.state.nm.us/content/nmdot/en/TTCP.html

If Equipment becomes inoperable, the Contractor shall replace or fix the Equipment within 24 hours of notification from the Department that the Equipment is inoperable. All Equipment provided by the Contractor will remain the property of the Contractor upon conclusion of the Project.

Delete **Section 622.2.1.7: Field Laboratory Computer Facilities** in its entirety and replace with the following:
If the Contract specifies Type II Field Laboratories, the Contractor shall provide the Laboratory with a personal computer. The Contractor shall maintain this computer for the duration of the Project. The Project Manager will approve the model and location of the personal computer. The computer Equipment shall remain the property of the Contractor.

The Contractor shall provide computer hardware/software in accordance with the following requirements, or latest industry standard, or greater:

1. Microprocessor: Minimum Dual-core 3.0 GHz i-7;
2. Memory: Minimum of 32 gigabytes;
3. Hard disk: Minimum of 1 terabyte SSD;
4. Media drives: 16x DVD ±R/±RW Multi-burner;
5. Monitor: Dual 24-inch color graphics monitor;
6. Printer: letter-quality color laser printer, eight (8) pages per minute minimum;
7. Minimum 11-inch x 17-inch flatbed and/or ADF scanner w/600 optical dpi;
8. Operating System: Windows 10 64 bit (x64) Professional;
9. Microsoft Office 365 License; and
10. Adobe Acrobat Pro.

Add the following to **Section 622.2.1.9**: **Field Laboratory Utilities:**
The Contractor shall coordinate with the appropriate agencies to obtain the necessary permits for electricity, water, sewer, and communications, including internet, to the field Laboratories. Costs associated with the same shall be considered Incidental.

Delete the fifth paragraph of **Section 622.3.1**: **General** and replace with the following**:**
The Contractor shall locate the field office where telephone, cellular service and internet access, with internet speeds to adequately meet business needs or as Accepted by the Department due to available speeds by the local provider, are available.

Add the following to **Section 622.3.2.3: Field Office Utilities:**
The Contractor shall coordinate with the appropriate agencies to obtain the necessary permits for electricity, water, sewer, and communications, including internet, to the field Offices. Costs associated with the same shall be considered Incidental.

October 8, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 632: REVEGETATION

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 632: REVEGETATION** in its entirety and replace with the following:

632.1 DESCRIPTION

This Work consists of preparing the soil, seeding, mulching, crimping and the application of Temporary Soil Stabilant to areas stripped of vegetation during construction operations and are required to be revegetated. Construction staking and digital submittals are included in the scope of the revegetation Work. The Contractor shall have at least one (1) certified seeding Inspector during seeding operations.

632.2 MATERIALS

The Contractor shall provide seeding submittals to the Project Manager in accordance with Table 632.3:1, "Construction Requirements for Classes of Seeding," for each class of seeding on the Project a minimum of ten (10) Working Days before any revegetation Work commences. The Contractor shall digitally provide for approval a to-scale printable revegetation Plan as part of the seeding submittals before the mandatory pre-Seeding meeting. The Contractor shall provide submittals that conform to the Specifications and the revegetation Plan and shall be on the Approved Products List (APL). After the Roadside Environment Design manager or representative approves submittals in accordance with Section 632.3.2, "Pre-seeding conference," the Contractor may substitute products on APL with prior approval from the Roadside's Section Manager or its representatives.

632.2.1 Materials and Sampling

The Department's certified seeding Inspector will be present when Materials are loaded into Equipment or distributed on the areas to be seeded.

The Contractor shall provide all containers and bags to the Department's certified seeding Inspector for verification upon request. The Contractor shall provide a certified weigh master ticket for all bulk Materials.in accordance with Section 109.1, "Measurement of Quantity," with the exception of compost mulch. Split loads of fertilizer, seed, straw, Temporary Soil Stabilant and bonded fiber matrix may be allowed with proper weigh master ticket and a notarized Contractor statement indicating a breakdown of the shipment total as indicated on the weigh master ticket. Split loads shall not be allowed for compost mulch and rock mulch.

The Contractor shall deliver all packaged Materials wrapped or otherwise securely protected from the weather which might affect their integrity. The Department will reject Materials in weather-damaged packaging.

The Contractor shall provide rock mulch Material in accordance with Section 632.2.10, "Rock Mulch for Class C Seeding." Rock mulch Materials do not need to be on the APL. The submittal shall be a full five (5) gallon bucket sample provided to the Project Manager for sieve analysis.

The Contractor shall provide two (2) cups of seed in a sealed bag labeled with the Material identification and the CN to the Roadside's Section Manager or its representatives for examination and testing. The Department will reject Materials not in accordance with Section 632, "Revegetation".

The Contractor shall ensure all fertilizers, compost mulch, and biotic soil amendments comply with the most current EPA standards for per- and poly-fluoroalkyl substances (PFAS).

632.2.2 Material Certifications

The Contractor shall provide Certificates of Compliance, in accordance with Section 106.4, "Certificates of Compliance." The Contractor shall notify the Department's certified seeding Inspector when bulk Materials are delivered so loads may be inspected and verified.

632.2.3 Seed

The Contractor shall use the Department's Revegetation Zones and Seed Lists map (Map) to establish a seed list. The Contractor shall use the current seed list. The Contractor shall substitute unavailable seeds adding the quantity of the unavailable seed to the quantity of the next seed species listed within that subcategory of the seed list. If the last seed species is unavailable the Contractor shall replace it with the first available species listed in the subcategory. Before substitutions can be made the Contractor shall provide proof of unavailability in letter form from three (3) seed Suppliers listed on the APL that the seed is not available. The Map can be found at the following link:

https://nmdot.maps.arcgis.com/apps/Viewer/index.html?appid=57543133e0d34c3688df5dfd37d738fe

The Contract shall specify varieties of noxious weed-free seed in accordance with New Mexico Seed Law (NMSA 1978, § 76-10-11 et seq.).

The Contractor shall submit a seed list from a seed Supplier showing the common name, botanical name, pure live seed, total poundage, source locality (County and State), and CN in accordance with the Plans to the Project Manager.

The Contractor shall ensure seed Suppliers are on the current APL and provide documentation that their regulating state agency belongs to the Association of Official Seed Certifying Agencies (AOSCA).

The Contractor shall bag pre-mix seed mixtures certifying the mixture quantity and percentage as noted in the seeding submittal.

The Contractor shall store all seed delivered bags in a container protected from rodents and moisture and not subject to temperatures higher than 90°F.

632.2.3.1 Seed Labeling

The seed Supplier shall seal and label each bag in accordance with the Federal Seed Act (7U.S.C. § 1551 et seq.) and New Mexico Department of Agriculture (NMDA) seed labeling requirements (NMSA 1978, § 76-10-13). The Supplier shall ensure each seed tag is affixed to the bag and has the CN clearly identified. The seed Supplier shall maintain records of seed tag CN's for a period of three (3) years. The seed Suppliers shall provide one (1)-acre seed bags in original, sealed bags and the Contractor shall provide all tags and

certifications to the Project Manager. The seed Supplier shall provide seed analysis results that are not older than 15 months prior to use.

The seed Supplier shall provide the following information on each bag tag for each species:

1. Variety (specify if certified);
2. Kind of seed;
3. Lot number;
4. Purity;
5. Germination;
6. Percentage crop seed, percentage inert, percentage noxious weeds;
7. Origin;
8. Test date; and
9. Weight (in pounds) of this species or percentage of total lot.

632.2.4 Fertilizer

The Contractor shall provide organic slow-release fertilizer with an N-P-K (nitrogen, phosphorous, potassium) analysis of either 3-6-3 or 3-7-2 and blended with arbuscular endo-mycorrhiza with a minimum propagule of 1.33 propagules per gram and a minimum of 15 percent humates by weight. The Contractor shall apply 1,000 lbs. per acre. Endo-mycorrhiza shall be arbuscular with a minimum propagule of 1.33 propagules per gram. The Contractor shall provide fertilizer (specified type and formulation) and Supplier's certification in accordance with the Contract. Each bag or tote of fertilizer shall have a visible, sealed, and un-altered analysis tag from the manufacturer that shall be approved by the Department's certified seeding Inspector prior to application of the Material. The tag shall include the manufacturer's information, the N-P-K analysis of the product, and the weight of the bag or tote. The Department reserves the right to inspect any bill of ladings or packing slips from the Supplier to verify quantity of Material on site.

632.2.5 Composted Mulch

The Contractor shall furnish and place composted mulch as shown on the revegetation Plan. Composted mulch Supplier shall be registered with or permitted by the New Mexico Environment Department Solid Waste Bureau and the composted mulch shall be in compliance with 20 NMAC 9.1, "Environmental Protection Solid Waste Management."

Composted mulch is defined as the product of a controlled aerobic thermophilic biological decomposition process that meets the quality requirements in Table 632.2.5:1, "Requirements of Compost Mulch." Raw Materials used in producing composted mulch may include green waste, animal manure, animal bedding, paper waste, food waste, biosolids or other non-toxic organic matter, but shall not include animal mortalities.

Table 632.2.5:1
Requirements of Composted Mulch

Material	Measure	Method	Criterion
Composted Mulches	Moisture Content*	Evaporative loss at 105°C	Between 35% and 60% during composting process. Compost mulch shall be shipped with moisture content not to exceed 40%.
	Carbon/Nitrogen Ratio*	Nitrogen by AOAC 993.13, Carbon by ASTM D5373	Between 15:1 and 60:1
	Particle Size	Sieve	40% minimum to 100% maximum of Material may pass ¾ inch screen; 100% of pieces smaller than 4 inches in length and 2 inches in diameter
	Electrical Conductivity*	1:5 slurry (mass basis)	<10 mmho/cm
	pH*	1:5 slurry (mass basis)	pH 5.0 - pH 8.0
	Organic Matter*	Loss on ignition at 550°C	25% - 100% of dry weight
	Maturity	Germination test in 50:50 (volume basis) mixture of ¾ inch screened composted mulch and twice-rinsed nursery sand.	Minimum 50% germination to second set of leaves for marigold seeds
	Stability	By temperature and moisture content	Maximum core temperature of 110°F after 48 hours in 5-foot-tall conical pile, with moisture adjusted to between 40% and 60%.

Table 632.2.5:1
Requirements of Composted Mulch

Material	Measure	Method	Criterion
Composted Mulches	Debris	By volume	Less than one percent (1%) inorganic debris, including but not limited to, glass, plastic, stones and metal.
Composted Mulches with Wastewater Biosolids	Trace Metals*	HNO_3 digestion	Complies with Table 3 of 40CFR503.13
	Fecal Coliforms*	MPN with A-1 broth	<1000 MPN/dry gram
*Tests marked with asterisks shall be performed by a suitable analytical Laboratory; other tests may be performed by the composted mulch producer.			

632.2.5.1 Acceptance of Composted Mulch
The Contractor shall ensure composted mulch Suppliers are on the APL.

Before delivering composted mulch, the Supplier shall furnish documentation that includes the following upon request:

1. The raw Materials, by percentage of volume, used in the production of the delivered composted mulch;
2. Daily temperature records for at least 20 percent of the piles or batches used to produce the composted mulch, illustrating attainment of at least 130°F for at least seven (7) consecutive Days;
3. A Laboratory analysis for criteria shown in Table 632.2.5:1, "Requirements of Composted Mulch" performed on composted mulch no more than 180 Days prior to delivery; and
4. A notarized statement signed by a corporate officer, confirming that the composted mulch meets each requirement shown in Table 632.2.5:1, "Requirements of Composted Mulch."

When Class A Seeding is established in the revegetation Plan but composted mulch is unavailable within 300 paved road miles of the Project, in accordance with Table 632.2.5:1, “Requirements of Composted Mulch”, the Contractor shall replace Class A Seeding with Class B Seeding. The Contractor shall provide documentation of compost mulch unavailability to the Project Manager.

632.2.6 Hydraulic Biotic Soil Amendment
The Contractor shall supply hydraulic biotic soil amendment (HBSA) in accordance with Table 632.2.6:1, “Hydraulic Biotic Soil Amendment Properties”.

Table 632.2.6:1
Hydraulic Biotic Soil Amendment Properties

Biotic Soil Amendment Property	Test Method	Desired Results
Physical		
Color	Observation	Colored to contrast application area. Shall not stain concrete or painted surfaces.
Organic Matter	ASTM D586	85% minimum
Acute Toxicity	ASTM 7101 & EPA Method 2021.0	Non-toxic
pH	ASTM D1293	5.0-8.5
C:N Ratio	ASTM E1580	10:1 minimum 100:1 maximum
Water Holding Capacity		400% minimum
Moisture Content	ASTM 2974	10% minimum, 50% maximum
Endurance		
Functional Longevity	Observation	Grass established in 6 months
Performance		
Vegetation Establishment	ASTM 7322	400% minimum

632.2.7 Straw Mulch

The Contractor shall not use rotten or moldy straw and shall ensure that straw bales stored on the Project shall not exceed 20 percent moisture content. All straw mulch shall be barley, wheat, or grama straw and is to be free of noxious weeds as certified by an industry-recognized forage certification authority. Certification twine shall appear on all certified straw bales. The color of the certified twine for straw bales shall be listed on the certification submittal for identification purposes. The Department's certified seeding Inspector or Roadside's Section Manager or its representatives may reject bales if the twine appears to be tampered with. The date on the straw certification provided to the Department may not be older than 18 months from the date of purchase. Before Acceptance, the Contractor shall provide weight tickets signed by a certified weigh master in accordance with Section 109.1, "Measurement of Quantity."

632.2.8 Temporary Soil Stabilant

The Contractor shall provide Temporary Soil Stabilants that have a blue or green dye lasting a minimum of 36 hours to aid in application, inspection and be biodegradable. When used as part of Class A seeding operations, the Contractor shall apply Temporary Soil Stabilant at a rate of 200 pounds per acre.

The Contractor shall use Temporary Soil Stabilants that are plant-derived and bio-degradable and shall be composed of either guar, psyllium (Plantago ovata), or starch.

Guar. Guar is a plant-based product derived from the ground endosperm of the guar plant, related with dispersant agents for easy mixing.

Psyllium. Psyllium is composed of the finely ground muciloid coating of Plantago ovata seeds that is applied as a dry powder or in a wet slurry to the surface of the soil. It dries to form a firm but re-wettable membrane that binds soil particles together but permits germination and growth of seed. Psyllium requires 12 to 18 hours drying time.

Starch. Starch is non-ionic, cold-water soluble (pre-gelatinized) granular cornstarch. The Material is mixed with water. Approximate drying time is nine (9) to 12 hours.

632.2.9 Hydro-Mulch - Bonded Fiber Matrix (BFM)

The Contractor shall use BFM hydro-mulch. BFM is a hydraulically-applied blanket that controls soil erosion and accelerates seed germination. BFM is a three (3)-dimensional composite of wood or paper fibers bonded by polymer Temporary Soil Stabilant that provides high performance erosion prevention on slopes. Dye and Temporary Soil Stabilant shall be included in the BFM formulation. The Contractor shall apply BFM at a rate of at least 2,000 lbs. per acre. The Contractor shall ensure all BFM products have a functional longevity of at least three (3) months on slopes that are 3:1 or steeper, are at least 50 feet, and have a C Factor of not more than 0.1 as tested using ASTM D 6459 and a minimum vegetative establishment of 200 percent (200%) as tested using ASTM D 7322.

632.2.10 Rock Mulch for Class C Seeding

The Contractor shall provide rock mulch that is a minimum of one (1) inch and no greater than 1½ inches in size. Rock shall have a minimum of two (2) Fractured Faces. Pumice rock is not Acceptable.

632.3 CONSTRUCTION REQUIREMENTS

632.3.1 General

The Contractor shall coordinate with the Project Manager prior to starting seeding operations to ensure that the Contractor's and the Department's certified seeding Inspector will be present during seeding operations. The Contractor shall not perform revegetation Work without the presence of the Department's certified seeding Inspector.

The Contractor shall not apply fertilizer, compost mulch, or HBSA within 50 feet of waterways as directed by the Project Manager and Roadside Environment Design Manager or Representative.

The Contractor shall provide seeding in accordance with Table 632.3:1,"Construction Requirements for Classes of Seeding."

Table 632.3:1
Construction Requirements for Classes of Seeding

Material	Class A	Class B	Class C	Class D
Description	Slopes up to and including 3:1	Inaccessible, narrow, or rocky areas	Slopes steeper than 3:1 up to and Including 2:1, and 55' in length or less. Refer to plans for slopes greater than 55' in length.	Utility Projects under 0.25 acres
Seed Mix	According to seed zone	2x seed zone weight	2x seed zone weight	2x seed zone weight
Fertilizer	1,000 lbs./acre	1,000 lbs./acre	1,000 lbs./acre	1,000 lbs./acre
Composted Mulch	134 cu.yd./ acre	NA	NA	NA
Hydraulic Biotic Soil Amendment (HBSA)	NA	3,000 lbs./acre for zones 2, 4, 6; 3,500 lbs./acre for zones 1, 3, 5	NA	NA
Straw	4,000 lbs./acre	NA	NA	NA
Temporary Soil Stabilant	200 lbs./acre	NA	NA	NA
Hydromulch - Bonded Fiber Matirx (BFM)	NA	2,000 lbs./acre	2,000 lbs./acre	NA
Class C Rock Mulch	NA	NA	300 tons/acre	NA

632.3.2 Pre-seeding conference

The Project Manager shall schedule an on-site mandatory pre-seeding conference before revegetation Work begins. The Project Manager, Roadside's Section Manager or its representatives, the Contractor, the Department's certified seeding Inspectors, and the revegetation Subcontractor shall attend.

The Contractor shall provide seeding submittals to the Project Manager and Roadside's Section Manager or its representatives between ten (10) and 20 Working Days prior to the pre-seeding conference. Any revegetation Work done prior to the pre-seeding conference will be rejected.

The Project Manager will have documentation of all pits, Contractor yards, etc. approved by the Roadside's Section Manager or its representatives. The Contractor shall complete construction staking, and quantities approved by the Project Manager prior to the pre-seeding conference.

All areas to be revegetated shall be measured and confirmed for each class of seeding in accordance with Section 801, "Construction Staking by the Contractor." This Work shall be Incidental to Bid Item 801000- “Construction Staking by the Contractor.” The Contractor shall complete construction staking for revegetation no more than 20 Working Days prior to the start of revegetation activities. The Project Manager shall notify the Roadside’s Section Manager or its representatives at least ten (10) Days prior to when construction staking takes place. The Project Manager and Roadside’s Section Manager or its representatives will establish the areas for each Class of seeding before any Materials are ordered or delivered. The Contractor shall identify areas that have less than four (4) inches of soil cover prior to the seeding submittal.

There will be no change in Materials or the scope of revegetation Work after the seeding submittal is approved unless agreed upon by the Roadside’s Section Manager or its representatives, and the Project Manager.

The Contractor shall ensure that revegetation Work areas are accessible, free of Equipment, and no further construction processes are occurring which would interfere with seeding operations. No Equipment access shall occur on areas which have been revegetated.

The Contractor shall maintain a minimum 15-foot-wide Equipment access to all revegetated areas until revegetation Work is complete.

632.3.3 Weather Limitations

The Contractor shall not perform revegetation Work when the ground is frozen or when temperatures are below 32°F and/or when sustained wind speed exceeds 12 mph as measured by anemometer and as determined by the Project Manager. Sustained wind speed is to be determined by averaging the high and low wind speeds that occur over a two (2)-minute period. The Contractor may perform disking with sustained winds exceeding 12 mph.

632.3.4 Equipment

The Contractor shall inspect the Equipment to confirm it is in good working order prior to commencing Work. The Department’s certified seeding inspector shall witness the inspection and calibration.

The Contractor shall pressure-wash all revegetation Equipment (including but not limited to trucks, trailers, tractors, hydro-seeders, drill seeders, straw blasters, and disks) to remove all visible mud, soil, and debris prior to entering the Project limits within the Department’s Right of Way (ROW) to avoid the spread of noxious weeds. If Equipment leaves the Project for any reason, the Department’s certified seeding Inspector will re-inspect Equipment when it is returned to the Project site.

632.3.4.1 Drill Seeder

The Department’s certified seeding Inspector will inspect the drill seeding Equipment so that drill seed drop tubes are not torn or clogged. The Department’s certified seeding Inspector will verify that all seed loaded into the Equipment is for the correct application rates. The Department’s certified seeding Inspector will verify that the auger in the seed bin is rotating, and that seed is dropping through drop tubes.

The Department’s certified seeding Inspector will inspect the drill seeder daily to prevent loss of seed or to prevent over-seeding. Drill seeder shall be capable of calibration. Calibration is not necessary on revegetation areas that are less than one (1) acre. Seeds shall be drilled to a depth of one half (½) inch to one (1) inch. The Contractor shall perform drill seeder calibration upon request of the Department’s certified seeding

Inspector in accordance with the manufacturer's recommendations. The Contractor shall calibrate the drill seeder once per Project unless it is replaced on the Project. Drill seeders shall only be modified by the manufacturer's recommendations and documentation of the modifications shall be available.

The Department's certified seeding Inspector will ensure that the Equipment has the following:

1. Double disk openers with 'A' frames;
2. Depth bands;
3. Drop tubes;
4. Packer wheels or drag chains;
5. Rate control attachments;
6. Seed boxers with covers and agitators for trashy seed; and
7. Keyway holding auger to shaft.

632.3.4.2 Hydro-Seeder

The hydro-seeder cannons, hoses and agitators shall be in good working condition.

632.3.4.3 Miscellaneous Equipment Requirements

The Contractor shall provide Equipment that meets the following:

1. Disking attachments with a minimum six (6) foot carriage with front and rear discs;
2. Crimping Equipment with a minimum eight (8) foot wide carriage;
3. Skid steer attachments may only be used on confined areas for seeding operations: and
4. Skid steers shall not be used for spreading compost unless in a confined area.

632.3.5 Class A Seeding

The Contractor shall use Class A Seeding for any Project areas with slopes 3:1 or flatter requiring revegetation that are more than eight (8) feet wide, are accessible to drill seeding Equipment, and can be disked to a four (4) inch depth.

632.3.5.1 Class A Seeding Order of Operations

The Contractor's Class A Seeding order of operations shall be as follows:

1. Disk ground to four (4) inches;
2. Apply fertilizer;
3. Apply compost mulch;
4. Disk ground to four (4) inches;
6. Drill seed;
7. Apply straw;
8. Crimp straw; and
9. Apply Temporary Soil Stabilant and dye. BFM is not to be used as dye.

632.3.5.2 Seedbed Preparation for Class A Seeding

The Contractor shall till the seedbed across the slope and along the contour with a disk, harrow, or chiseling tools to at least four (4) inches deep. The Contractor shall uproot competitive vegetation during seedbed preparation, and provide a surface free of clods, large stones, or other Deleterious Material that would interfere with seeding Equipment. The Department's certified seeding Inspector will approve the area that was disked before compost is added to the soil. Disking may be performed with wind speeds exceeding 12 mph.

632.3.5.3 Composted Mulch Application for Class A Seeding

The Contractor shall ensure the compost mulch has a moisture content between 20 percent and 40 percent while at the Project location. At the time of delivery, the Contractor shall wet down compost mulch so that wind loss is kept to a minimum. Stockpiles shall be less than six (6) ft tall. The Project Manager may require additional wetting of composted mulch at no additional cost to the Department.

The Contractor shall add one (1) inch of composted mulch as specified by disc, harrow, or chisel to a depth of four (4) inches. The Contractor shall not spread composted mulch if sustained wind velocity exceeds 12 mph as determined by the Project Manager but may still perform disking.

The Contractor shall incorporate composted mulch into the seedbed before adding fertilizer and commencing drill seeding.

When Class A Seeding is established in the Contract but composted mulch, is unavailable, the Contractor shall replace Class A Seeding with Class B Seeding.

632.3.5.4 Fertilizer Application for Class A Seeding

The Contractor shall apply the fertilizer uniformly to the prepared seedbed. Fertilizer may be broadcast or hydro-applied. If hydro-applied, the Contractor shall mix fertilizer in the hydro-seeder for a minimum of ten (10) minutes before applying.

632.3.5.5 Drill Seeding for Class A Seeding

After seed bed preparation and before drill seeding commences, the Contractor shall remove all rocks larger than four (4) inches in diameter from the seed bed and no payment shall be made thereof.

The Contractor shall provide a test strip of Class A Seeding before commencing the seeding operation. Each test strip shall measure no less than one (1) acre in a configuration appropriate for the Equipment and the site, shall be at a location of the Contractor's choosing within the Project, with the Department’s certified seeding Inspector and Roadside’s Section Manager or its representatives in attendance. A test strip is not required for Projects less than one (1) acre but all seed shall be applied evenly on revegetation area. Equipment calibration will be conducted upon request of the Department’s certified seeding Inspector, Roadside’s Section Manager or its representatives, on revegetation areas greater than one (1) acre. The test strip is to verify Equipment functionality, proper adjustment, application rate, and the Contractor's ability to perform the Work.

Upon Acceptance of the test strip, the Contractor may proceed with seeding operations. If the test strip is not Accepted, the Contractor shall establish a new one (1) acre strip location. The Contractor shall not proceed to full seeding operation until an Acceptable test strip has been produced. Payment will only be made for Accepted test strips, which is included as part of the revegetation area established in the revegetation Plan.

The Contractor shall coordinate with the Project Manager prior to starting seeding operations to ensure that the Department’s certified seeding Inspector is present at all times. No revegetation Work shall be performed without the presence of the Department’s certified seeding Inspector.

The Contractor shall uniformly plant seed 1/2 inch deep. The Contractor shall ensure that the distance between the drilled furrows is no more than eight (8) inches. If the furrow openers on the drill exceed eight (8) inches, the Contractor shall re- drill the area at no additional cost to the Department.

Once drill seeding is completed on all areas with bare ground, the Contractor shall complete all remaining Class A operations within 24 hours.

If rainfall or some other factor prevents the Contractor from seeding to the specified depth on prepared surfaces, the Contractor shall prepare the seedbed and apply seed again, at no additional cost to the Department.

The Contractor shall not drive vehicles or other Equipment on seeded areas. The Contractor is responsible for protecting revegetation Work until Acceptance.

If erosion or crusting of seed bed occurs and seed or fertilizer is lost to erosion prior to completion of seeding operations, Project Manager or Roadside's Section Manager or its representatives may instruct the Contractor to perform seedbed preparation at eroded locations again at no additional cost to the Department.

632.3.5.6 Straw Mulching for Class A Seeding

When the revegetation Work is being done the Contractor shall test straw bale moisture content with a straw bale moisture meter with an eight (8) inch minimum length probe for the duration of the Project. The Department's certified seeding Inspector shall be present and record this test. The Contractor shall test each bale to confirm that the bale interior moisture content is not greater than 20 percent. Any bales with moisture above this level will be rejected and removed from the Project. Higher levels of moisture may indicate the presence of mold and the risk of spontaneous combustion.

The Contractor shall anchor straw mulch using a crimper with flat serrated discs at least one (1) inch thick with dull edges, spaced no more than nine (9) inches apart. The Contractor shall ensure that the disk diameter is large enough to prevent the frame of the Equipment from dragging in mulch.

The Contractor shall ensure that the rate of application of straw mulch is at least two (2) tons of air-dry straw per acre. The Department's certified seeding Inspector will verify the total tons per acre of straw required per acre.

The Contractor shall ensure that straw mulch has at least 50 percent of fibers exceeding ten (10) inches long on the ground after application.

The Contractor shall spread straw mulch following drill seeding with a mechanical spreader or by hand. If spreading by hand, the Contractor shall break apart the bales of mulch and fluff it before spreading.
The Contractor shall ensure that straw mulch crimping is at least two (2) inches deep and not covered with excessive amounts of soil. The Contractor shall perform straw mulch anchoring across the slope where practical, with no more than two (2) passes of the anchoring Equipment. The Contractor shall apply the straw mulch evenly over the entire bedding area with no bare areas showing or areas with straw mulch deeper than four (4) inches in depth before crimping.

632.3.5.7 Application of Dye and Temporary Soil Stabilant for Class A Seeding

The Contractor shall anchor straw following crimping with an approved Temporary Soil Stabilant with green dye at a rate of 200 lbs. per acre.

632.3.6 Class B Seeding

The Contractor shall use Class B Seeding, for any Project areas that are either less than eight (8) feet wide, and/or are inaccessible to drill seeding Equipment or Class C rock mulch application Equipment, and/or cannot be disked to a four (4) inch depth.

632.3.6.1 Order of Operations for Class B Seeding

The Contractor's Class B Seeding order of operations shall be as follows:

1. Hydro-apply fertilizer;
2. Disk ground to four (4) inches when practicable;
3. Add water, HBSA and seed to hydroseeder and agitate for ten (10) minutes to create slurry;
4. Apply slurry in two (2) coats from opposing directions within one hour after slurry is created; and
5. Apply BFM with Temporary Soil Stabilant and dye in two coats from opposing directions.

632.3.6.2 Seed Bed Preparation for Class B Seeding

Unless soil is determined by the Project Manager and Roadside Section Manager or its representatives to be too rocky, the Contractor shall till the seedbed across the slope and along the contour with a disk, harrow or chiseling tools to at least four (4) inches deep. The Contractor shall uproot competitive vegetation during seedbed preparation, and uniformly prepare the soil to a surface free of clods, large stones, or other Deleterious Material that would interfere with seeding Equipment. The Contractor shall ensure the Department's certified seeding Inspector approves areas that were disked. The Contractor may perform disking with winds exceeding 12 mph.

632.3.6.3 Application of HBSA, Fertilizer, Humates, Mycorrhizae and Seed

The Contractor shall add water and HBSA to the hydro-seeder at a consistent rate. The ratio of water to HBSA shall be in accordance with the manufacturer's recommendations. The Contractor shall then add fertilizer, humates and mycorrhizae. The Contractor shall add the seed last and then agitate or mix to a uniform slurry for a minimum of ten (10) minutes after all water and Materials are in the tank.

The Contractor shall apply HBSA and seed to the soil surface in two (2) coats in opposing directions. Seed shall be applied at twice the normal rate. The Contractor shall apply HBSA in accordance with Table 632.3:1, "Construction Requirements for Classes of Seeding."

Once slurry is hydro-applied, the Contractor shall apply BFM within 24 hours.

632.3.6.4 Application of Bonded Fiber Matrix for Class B Seeding

The Contractor shall apply approved bonded fiber mulch with Temporary Soil Stabilant and dye in two (2) coats from opposing directions at a rate of 2,000 lbs. per acre. If traffic control issues prevent vehicle travel in both directions during the application process, the Contractor may use a sweeping motion to apply the coats.

632.3.7 Class C Seeding

The Contractor shall apply Class C Seeding in areas steeper than 3:1 up to and including 2:1 slopes.

632.3.7.1 Order of Operations for Class C Seeding

The Contractor's Class C Seeding order of operations shall be as follows:

1. Install composted mulch socks at top of slopes;
2. Track slopes;
3. Apply seed and fertilizer mix in two (2) coats from opposing directions;
4. Apply BFM; and
5. Apply rock mulch to seeded area without damaging the BFM.

632.3.7.2 Composted Mulch Socks for Class C Seeding

The Contractor shall place Composted Mulch Socks at the top of the slope on contour in areas to be revegetated where water flow or sheet flow moves from undisturbed soil or Roadway pavement onto disturbed soil or bare ground.

632.3.7.3 Tracking and Scarification for Class C Seeding

The Contractor shall track-walk areas designated as Class C Seeding treatment with tracks parallel to the toe of slope to compact and score the slopes within seven (7) Working Days prior to the commencement of Class C Seeding operations. The Contractor shall hand rake or chain harrow areas with Class C Seeding that cannot be tracked to incorporate seed into the soil.

The Contractor shall re-track slopes which have eroded or otherwise degraded in the seven (7) Working Day period before seeding as determined by Roadside's Section Manager or its representatives at no additional cost to the Department.

The Contractor shall uproot competitive vegetation before hydro-seeding so that seed has good adherence to the surface and soil cover at no additional cost to the Department.

632.3.7.4 Hydro-Seeding for Class C Seeding

The Contractor shall apply Class C Seeding in a slurry with fertilizer and dye. All Materials loaded into the Equipment will be verified by the Department's certified seeding Inspector to confirm correct application rates. The Contractor shall apply Class C Seeding at twice the Class A Seeding rate. The Contractor shall mix all Materials for a minimum of ten (10) minutes before application. The Contractor shall apply slurry in two (2) coats from opposing directions. Once seed is installed on a Class C Seeding area, the Contractor shall complete all Class C Seeding operations for that area within 24 hours.

632.3.7.5 Hydro-Mulching for Class C Seeding

The Contractor shall apply BFM in two (2) sweeps from opposing directions to ensure coverage is complete. The BFM shall contain a Temporary Soil Stabilant when applied. The slurry shall include a dye capable of lasting 36 hours so that the Department's certified seeding Inspector can confirm coverage. The Contractor shall apply BFM and rock mulch to seeded areas within 24 hours after application to protect seed. The Department's certified seeding Inspector shall verify that all Materials loaded into the Equipment are for the correct application rates. The Contractor shall mix all Materials for a minimum of ten (10) minutes before application.

632.3.7.6 Rock Mulch for Class C Seeding

The Contractor shall cover the entire Class C Seeding area with rock mulch surface that is smooth and of uniform thickness while maintaining the original flow lines, slope gradients, and contours of the Work. The Contractor shall apply rock mulch so as not to damage the hydro-mulch when being placed. The Department

does not specify methods and means of rock mulch installation and they may vary as per access. The Contractor shall replace damaged hydro-mulch at no additional cost to the Department.

632.3.8 Class D Seeding

The Contractor shall apply Class D Seeding in accordance with Table 632.3:1, “Construction Requirements for Classes of Seeding.”

632.3.8.1 Order of Operations for Class D Seeding

The Contractor’s Class D Seeding order of operations shall be as follows:

1. Grade disturbed surfaces to match adjacent grades;
2. Apply seed and fertilizer to disturbed areas; and
3. Work seed and fertilizer into the top 1/2 inch of soil.

632.3.8.2 Grading Disturbed Areas for Class D Seeding

The Contractor shall regrade soils to match existing grades on adjacent slopes after trenches are backfilled and compacted, or other earth-disturbing activity is complete.

632.3.8.3 Applying Seed and Fertilizer for Class D Areas

The Contractor shall apply seed mix for the region evenly at twice the normal rate of Class A Seeding along with fertilizer.

632.3.8.4 Integrating Seed and Fertilizer for Class D Areas

The Contractor shall work seed and fertilizer into the top ½ inch of disturbed area so that no seed is exposed when complete.

632.3.9 Revegetation of Exposed Soil within the Project Limits

The Contractor shall vegetate areas of exposed soil within the Project Limits (as defined by the 2022 Construction General Permit, 2.2.14.c.i., Final Stabilization Criteria) that existed before construction commenced in accordance with Section 107.14.2 “Parking and Cleaning of Equipment”. The Contractor shall include these areas in the revegetation Plan at no additional cost to the Department.

632.3.10 Revegetation of Areas Outside the Project Limits

The Contractor shall revegetate all areas of bare ground on off-site locations in accordance with Section 104.7, "Final Cleanup," and shall use the appropriate class of seeding for the terrain. The Contractor shall follow these Specifications for all public and private lands requiring revegetation unless other seed lists and procedures are required in a resource agency permit. The Contractor shall perform all revegetation Work done for Contractor located activities at the Contractor's expense.

In accordance with the 2022 Construction General Permit Part 1.1.1 and Part 1.1.2, a private landowner outside of the Project Limits is considered an operator in accordance with the Construction General Permit and will need to file a Notice of Intent (NOI). As part of the submittal, the Contractor shall also provide a notarized letter of intent from landowners to the Department for off-site locations in accordance with Section 104.7, "Final Cleanup." The letter of intent shall acknowledge that the private landowner is an Operator, and the landowner is obligated to have revegetation performed in accordance with Department Specifications. If the landowner waives the revegetation obligation contrary to the Environmental Protection Act, 2022 Construction General Permit regulations Part 2.2.14, the landowner shall acknowledge that neither the

Contractor nor the Department are responsible for any claims related to the owner's decision to forgo revegetation including but not limited to fugitive dust, noxious weeds, siltation of waterways, or Non-Conformance with the Construction General Permit. The Contractor shall provide a right of access permit for inspection of the revegetation Work when revegetation Work is being performed on private land and shall be considered Incidental to the Work.

632.4 METHOD OF MEASUREMENT

The Contractor's revegetation Plan shall identify each area by station, numerical order, Project left, Project right, and is to indicate the class of seeding. Quantities shall match those produced by construction staking and shall include all off-site areas with bare ground.

The Contractor shall submit an accompanying table to the Plan showing the amount of each Material apportioned for each area on the Project and the acreage of that sub-area. The Contractor shall include all off-Project areas requiring revegetation as enumerated in Section 632.5, "Basis of Payment."

632.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Class A Seeding	Acre
Class B Seeding	Acre
Class C Seeding	Acre
Class D Seeding	Acre

632.5.1 Work Included in Payment

The following Work items will be considered as included in payment for the main items and will not be measured or paid for separately:

1. Revegetation plan;
2. Moisture probe for straw bales;
3. Moisture probe for compost mulch; and
4. Scale for drill seeder calibration.

July 25, 2023

SPECIAL PROVISIONS
FOR
SECTION 635: BAT BOX

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

635.1 DESCRIPTION

This Work shall consist of providing and installing Bat Box(es). A Bat Box consists of modular bat unit panels, mounting racks and associated hardware.

635.2 MATERIALS

635.2.1 Modular Bat Unit Panels

The Contractor shall furnish and install Bat Boxes consisting of various types of modular bat unit panels. Modular bat unit panels shall be provided by ModernBat LLC or equivalent.

Bat Box manufacturer contact information:
ModernBat LLC
Justin Stevenson
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The number and type of panels required for each Bat Box will be indicated on the Plans. The Contractor shall provide modular bat unit panels that are made of a Material that has beneficial thermal properties for native bat species. The Contractor shall seal modular bat unit panels in accordance with Section 532, “Penetrating Water Repellent Treatment” which shall not contain volatile organiccompounds.

The modular bat unit end panel shall be 0.625 inches thick and weighs 50 lbs. It contains grooves on one side of the panel that run parallel to the 4-foot-long edge.

The modular bat unit 1 panel is 2.25 inches thick and weighs 115 lbs. It contains grooves on both sides of the panel that run parallel to the 4-foot-long edge. The bottom opening varies between 0.75 inches and 1.25 inches, because the panel thickness varies along the 4-foot-long edge.

The modular bat unit 2 panel is 2.50 inches thick and weighs 115 lbs. It contains grooves on both sides of the panel that run parallel to the 4-foot-long edge. The bottom opening varies between 1.00 inches and 1.5 inches, because the panel thickness varies along the 4-foot-long edge.

The modular bat unit 3 panel is 9.0 inches thick and weighs 250 lbs. It contains a natural rock texture with varying dimensions. These panels can be used together or with the other panel types to provide a variety of bat roosting habitat. The bottom opening generally varies from 5.00 inches to 7.00 inches wide.

Alternative groove dimensions may be considered if proven effective through the submittal process. Other panel dimensions shall remain unchanged.

635.2.2 Mounting Racks

Dimensions of the mounting rack will vary depending on the number and type of modular bat unit panels furnished and if mounted under a CBC, under a slab Bridge, or between Bridge girders. Mounting racks will hold a maximum of 36 inches of combined panels.

The Contractor shall powder coat the mounting rack angles, tubes and other structural steel in accordance with Section 545, "Protective Coating of Miscellaneous Structural Steel". The Contractor shall ensure that the threaded rods, bolts, washers, nuts and other hardware are galvanized. Mounting racks shall be designed to rest on the bottom flanges of adjacent girders for girder Bridges or to anchor into the underside of the slab for CBCs or slab Bridges. Mounting racks and attachments to the supporting structure, as shown on the Plans, shall use the modular bat unit panel weights and thicknesses in accordance with Section 635.2.1, "Modular Bat Unit Panels". If the modular bat unit panel weights and/or thicknesses are exceeded, the Supplier shall submit Shop Drawings detailing the modular bat unit panel dimensions and weights, along with a modified mounting rack design prepared and stamped by a professional Engineer licensed in the State of New Mexico. Shop Drawings shall be submitted to the Project Manager for review by the Bridge Engineer prior to fabrication. The Contractor shall install mounting racks at the locations shown on the Plans.

635.2.3 Mounting Hardware

The Contractor shall utilize hardware in accordance with Section 542, "High Strength Bolts."

The Contractor shall mount bat box frames under CBCs and slab Bridges using coil loop inserts that meet the requirements of ASTM A510. Coil loop hardware shall be electroplate galvanized in accordance with ASTM B633.

For post-installed applications, the Contractor shall mount the bat box frames in accordance with Section 522, "Chemical Adhesive Anchors".

635.3 CONSTRUCTION REQUIREMENTS

635.3.1 Construction

The Contractor shall install the modular bat unit panels together creating a sealed surface on the upper edge and sides of the modular bat unit panels that results in a protected environment for roosting bats.

635.3.2 Shop Drawings and Submittals

The Contractor shall submit complete Shop Drawings for the modular bat unit panels and mounting racks to the Project Manager for review by the Bridge Engineer and Environmental Bureau.

The Contractor shall include the following information:

1. Detailed dimensions and sizes of modular bat unit panels;
2. Photographic or video evidence of product use by bat species in Arizona, New Mexico, Texas or Oklahoma;
3. Installation position of modular bat unit panels within mounting racks;

4. Total and unit weight of modular bat unit panels;
5. Detailed dimensions and sizes of mounting racks and components (including welds, bolt holes and fasteners);
6. Detailed list of mounting rack components; and
7. Total weight of mounting racks.

The Contractor shall not make any changes to Accepted Shop Drawings. If changes are made, the Contractor shall re-submit the Shop Drawings for Acceptance.

635.3.3 Installation

The Contractor shall furnish and install the Bat Box mounting rack and modular bat unit panels as indicated on the Plans. The Contractor shall not drive machinery such as lifts and bucket trucks into or across live streams containing water or within temporary protective fence areas.

635.4 METHOD OF MEASUREMENT - Reserved

635.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Bat Box	Each

635.5.1 Work Included in Payment

The Department will consider the following Work as included in the payment and no separate payment will be made:

1. The Shop Drawings and submittals.

February 29, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 664: LANDSCAPE PLANTING

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 664: LANDSCAPE PLANTING** in its entirety and replace with the following:

664.1 DESCRIPTION

This Work consists of providing trees, shrubs, and other Materials necessary to complete the landscape. This Work includes labor, Equipment, and the performance of operations including planting, fertilizing, watering, cleanup of planting areas, and replacement of unsatisfactory, damaged, and unacceptable planting Materials.

664.2 MATERIALS

664.2.1 Plant Materials

The Contractor shall provide healthy, vigorous plants of the type (species and variety), size. The Contractor shall provide plants with normal, well-developed branch and root systems. The Contractor shall ensure plants are free of the following:

1. Damage from machines;
2. Sun or frost damage;
3. Insects and insect eggs; and
4. Disfiguring knots or other objectionable defects.

The Contractor shall provide plants that equal or exceed the minimum specified measurements. The Contractor shall select plant Materials for shape and branching habit that will produce the strong, full foliage of a typical, mature specimen.

664.2.2 Inspection of Plant Materials

The Contractor shall provide plant Materials in accordance with State and federal laws, including the New Mexico Plant Protection Act (NMSA 1978, § 76-5-11 et seq.), for disease infestation inspection.

The Contractor shall ensure inspection certificates required by law accompany each shipment, invoice, or order of stock. On delivery, the Contractor shall provide the certificate to the Project Manager. The Contractor shall provide for Department inspection at the place of origin or in a local nursery, and upon delivery to the planting location at the Project.

664.2.2.1 Notification and Inspection

The Contractor shall submit an itemized list of the plants to the Project Manager, along with a time and location for the inspection, at least seven (7) Days in advance.

The Roadside Design section manager or representative and the Project Manager will make plant inspections jointly. The Project Manager will tag the Accepted plants before plants are removed from the nursery for delivery to the Project.

The Project Manager and the Roadside Design section manager or representative will inspect for size, vigor, representation of the species and variety, damage, condition of ball and roots, and latent defects.

664.2.3 Container Plants

The Contractor shall provide plants specified on the plant list as "container grown" at a reasonable stage of development for the specified container size. The Contractor shall provide plants that are grown in their containers long enough to develop good, round, root systems capable of holding the soil intact after removal from the container, but not enough to become root bound.

664.2.4 Pole and Whip Plantings

The Contractor shall provide poles and whips that are members of the salicaceae family unless otherwise specified by the Roadside Design section manager or representative. The diameter of cottonwood poles shall not exceed three (3) inches. The Contractor shall not prune the leading stem (also known as the terminal bud). The Contractor shall tie the poles and whips in secure bundles that weigh between 50 and 60 lbs.

664.2.5 Substitutions

The Department will permit substitutions of equivalent varieties of plant Materials or other Materials only after the Contractor makes every reasonable effort to secure Materials of the species, varieties, and kinds listed on the Bid Forms or in the Contract. The Contractor shall submit requests for substitutions in writing to the Project Manager for approval by the Roadside Design section manager or representative. The Contractor shall obtain written approval from the Project Manager before substituting the Materials.

664.2.6 Delivery of Shipments to Site

The Contractor shall protect plant Materials before shipment to prevent damage (over- drying or wind). The Contractor shall ensure the safe digging, wrapping, binding, loading, shipment, and handling of heavy balled plants.

The Contractor shall notify the Project Manager of the time and manner of delivery at least seven (7) Days in advance. The Contractor shall provide two (2) copies of an itemized list of the quantities of plant Materials in each delivery with the notice.

The Project Manager will inspect the plants upon delivery. The Department will reject cracked or mushroomed balls and damaged plants that are unacceptable for planting. The Contractor shall immediately remove rejected plants from the Project.

664.2.7 Tagging and Labeling of Plant Materials

The Contractor shall securely tag plants with legible, durable labels using weather-resistant ink and identifying the following for each plant:

1. Origin;
2. Species;
3. Variety;

4. Name; and
5. Size.

The Contractor shall keep tags on through final inspection.

664.2.8 Fertilizer
The Contractor shall supply fertilizer in accordance with the Contract.

664.2.9 Water
The Contractor shall use clean water that is free from pollutants harmful to plant growth or that could contaminate the environment.

664.3 CONSTRUCTION REQUIREMENTS

664.3.1 Planting
The Contractor shall use the planting backfill mixture and provide watering basins in accordance with the contract. The Contractor shall not plant deeper than the original ground line.

664.3.2 Care and Replacement
During any period of suspension of Work, the Contractor shall properly and continuously maintain in a growing condition all plant Material in newly installed plantings furnished under the Contract. The Contractor shall water the plants upon installation and at appropriate intervals as specified by the contract until Acceptance by Roadside Design section manager or representative, or until any required irrigation system is in place and operational.

The Contractor shall take adequate precautions to protect new plant growth against any injury.

664.3.3 Harvesting and Care of Cottonwoods or Gooding's Willow Poles (poles) and Willow Whips
The Contractor shall harvest and plant all cuttings between October 1st and April 15th in revegetation zones one (1), two (2) and four (4), and between Oct 15th and April 1st in zones three (3), five (5) and six (6). The Contractor shall harvest poles and whips to lengths necessary to be placed in the groundwater at the planting site. The Contractor shall harvest plants within 120 miles of the Project site. The Contractor shall prune poles so that fewer than ten (10) branches are attached to the main stem and shall not prune the leading stem (also known as the terminal bud). The Contractor shall place poles and whips within 12 hours of harvesting in soaking tubs for a minimum of seven (7) days prior to planting.

664.3.4 Planting of Pole and Willow Whips
Following the required soaking period, the Contractor shall transport the poles and whips to the Project. The Contractor shall dig, trench, or auger the soil (or access the water table by other means) to at least one foot (1') beyond the depth of ground water. The Contractor shall place the plantings at least ten feet (10') apart ensuring that the bottom of the poles and whips are submerged at least six inches (6")-eight inches (8") below the water table. The Contractor shall trim the willow whips and poles to ensure that 50-80 percent of the cuttings are below ground. The Contractor shall ensure that each pole is planted at least 20 feet from another pole. The Contractor shall plant a bundle of willow whips with a ten foot (10') radius of poles. A bundle of willow whips may be planted in the same hole as poles or may be planted in a separate hole within a ten foot (10') radius of the poles. After planting, the Contractor shall backfill and compact the soil around the cuttings to ensure good soil to stem contact.

664.3.5 Final Inspection and Acceptance

After the completion of the landscape planting Work, the Project Manager and Roadside Design section manager or representative will make final inspection and Acceptance.

664.4 METHOD OF MEASUREMENT

Payment shall be made on a Lump Sum basis in accordance with the itemized list of unit prices submitted for Bid Item 664000-Landscape, Complete.

664.5 BASIS OF PAYMENT

Pay Item	Pay Unit
Landscape, Complete	Lump Sum

664.5.1 Work Included in Payment

The following Work items will be considered as included in payment for the main items and will not be measured or paid for separately:

1. Furnishing, transporting, and planting of plants; and
2. Excavation, furnishing prepared backfill mixture, wrapping, staking, watering, care, weeding and maintenance of plants.

February 8, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 701: TRAFFIC SIGNS AND SIGN STRUCTURES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the first paragraph of **Section 701.2.4.6: Inspection** and replace with the following:

Prior to fabrication, the Contractor shall provide the Project Manager all signing information, including text, for review and approval. The Department will inspect Material and finished signs before and after installation at the Project site.

Delete **Section 701.3.5 Removing and Resetting Traffic Signs** and replace with the following:

701.3.5 Removing and Resetting Panel Signs
The Contractor shall remove existing panel signs, posts, and associated appurtenances from specified locations and reset on new posts with new hardware as shown in the Contract.

Before removing existing panel signs, the Contractor shall submit a sign removal and resetting schedule to the Project Manager for approval.

Add the following to **Section 701.3.5 Removing and Resetting Panel Signs:**

701.3.5.2 Removing and Resetting Overhead Sign Structures
The Contractor shall remove existing overhead sign structures, I-beam posts and footings. The Contractor shall stockpile removed overhead sign structures and I-beam posts at locations specified in the Contract. The Contractor shall reset removed overhead sign structures on new I-beam posts with new hardware and drilled shaft foundations. The Contractor shall design new hardware for existing conditions in accordance with the manufacturer's recommendations and as specified in the Contract. The Contractor shall dispose of footing Material in an environmentally Acceptable manner.

The Contractor shall backfill holes left by the removal of overhead sign structure foundations and compact in accordance with Section 203, "Excavation, Borrow and Embankment".

Polyurethane Material shall be injected into the soils beneath the roadway structure through drilled holes at locations and depths as directed by the Project Manager.

Add the following Pay Item to **Section 701.5 Basis of Payment:**

Pay Item	**Pay Unit**
Remove and Reset Overhead Sign Structure	Each

Delete the following Pay Item to **Section 701.5 Basis of Payment:**

Pay Item	**Pay Unit**
Remove and Reset Traffic Sign	Each

Add the following to **Section 701.5.1 Work Included in Payment:**

8. Polyurethane Material as displayed by the certified flow meters and dynamic cone penetration (DCP) testing.

May 14, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 702: CONSTRUCTION TRAFFIC CONTROL DEVICES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 702.2: MATERIALS:**

702.2.1.3 Multi-Directional Slip Base Posts for Construction Signing
The Contractor shall provide multi-directional slip base post Material in accordance with Section 701.2.6: "Sign Structures and Hardware."

Delete the first paragraph of **Section 702.2.1.2: Portable Sign Supports** in its entirety and replace with the following:

The Contractor shall provide portable sign supports in accordance with the MUTCD, current edition.

Delete the first and second paragraphs of **Section 702.2.2: Barricades and Channelization Devices** in their entirety.

Delete the third paragraph of **Section 702.2.2: Barricades and Channelization Devices** in its entirety and replace with the following:

Unless stated otherwise, the Contractor shall submit to the Project Manager, certification from the manufacturer stating that the traffic control devices proposed for use are in accordance with NCHRP Report 350 and/or MASH.

702.2.6 Temporary Portable Rumble Strips
Temporary Portable Rumble Strips (TPRS) shall be composed of three (3) segments that when interlocked provide an 11-foot width. The Contractor shall provide TPRS that meet the following:

1. The entire TPRS shall be black, white, or orange in color, but shall not be used in combination within an array. An array consists of three (3) TPRS;
2. Constructed from a polymer or other similar, durable Material;
3. Requires no adhesives or anchors for installation;
4. Each TPRS shall weigh at least 100 lbs;
5. The height of each TPRS will be no greater than ¾ inch;
6. The TPRS shall be a minimum of ten (10) inches wide;
7. No assembly shall be required prior to or during deployment;
8. Performance will be rated to withstand surface temperatures of 0 – 180°F and shall maintain integrity while being deployed, used and removed;
9. Integrated, ergonomic handles on both ends of the TPRS;
10. Grooved designs on the bottom to prevent hydroplaning;

11. Raised designs on the top, with leading and trailing beveled edges to facilitate the safe traversing of motorcycles;
12. Durable orientation indicators to prevent improper deployment;
13. Flexible along the length of the TPRS to conform to the road surface;
14. Hinged at the midpoint of the TPRS for ease of installation;
15. Withstand vehicles with a maximum weight of 80,000 pounds and retain original placement with minimal movement such that performance is not compromised;
16. Function on roads with posted speed limits up to 80 mph; and resist movement such that performance is not compromised; and
17. Manufacturer's warranty of at least three (3) years.

Add the following to **Section 702.3.1: General**

702.3.1.3 Temporary Portable Rumble Strips

The Contractor shall install TPRS in accordance with the manufacturer's recommendations.

The Contractor shall clean the roadway to ensure that there is no dust, sand or any other materials that may cause slippage prior to placement of the TPRS.

The Contractor shall install the TPRS arranged in an array, as indicated on the Plans or as directed by the Project Manager. The TPRS array shall consist of three (3) TPRS placed perpendicular to the centerline and parallel to one another. The spacing of TPRS in each array shall be in accordance with Table 702.3.1.3:1, "TPRS Array Spacing". The Contractor shall regularly monitor and maintain TPRS to ensure proper placement under traffic.

Table 702.3.1.3:1
TPRS Array Spacing

Posted Speed	Spacing
Up to 40 mph	10 feet
41-55 mph	15 feet
56-64 mph	20 feet
65+ mph	35 feet+

The Contractor shall install the TPRS array using the manufacturer designed TPRS Deployment and Transport Device (DTD) or TPRS Rapid Deployment and Transport Device (RDTD).

702.3.1.3.1 Deployment Transport Device and Rapid Deployment and Transport Device

The Contractor shall use a TPRS DTD that meets the following requirements:

1. Carry and support at least six (6) folded TPRS or 600 lbs;
2. Weigh no more than 150 lbs. when empty;
3. Designed with roller bearings to facilitate ease of deployment and retrieval;
4. Designed with capability of being attached/detached from the vehicle using a forklift; and
5. Designed with collapsible guide markers for visual conspicuity.

The Contractor shall use a TPRS RDTD that meets the following requirements:

1. Allow deployment, realignment, and retrieval of strips without workers leaving the vehicle.

The TPRS DTD and RDTD shall be designed to transport TPRS in alignment with deployment orientation and to facilitate deployment of TPRS directly onto the road surface.

The Contractor shall install the TPRS using methods that maximize the efficiency of installation, relocation, or removal without impacting the safety of the traveling public or the workers.

The Contractor shall install the TPRS at the beginning of operations in accordance with the following guidelines:

1. The TPRS shall be installed perpendicular to the longitudinal pavement markings;
2. The TPRS shall be positioned across the entire travel lane but not intrude into the opposing travel lane. It may be necessary to extend the TPRS onto the shoulder;
3. TPRS shall be installed in accordance with the permanent orientation indicators on the TPRS, to ensure proper deployment;
4. Unless otherwise indicated on the plans, TPRS shall remain for Work duration; and
5. Removal of TPRS shall coincide with the removal of the Rumble Strips advanced warning sign(s) using the TPRS DTD or RDTD.

The Contractor shall install TPRS as follows:

1. On intermediate and long-term stationary operations when crews are present; and
2. In advance of horizontal curves.

The Contactor may use TPRS in accordance with the following conditions:

1. Short-term stationary, intermediate-term stationary, and long-term stationary Work consisting of the following:
   1.1 Lane closures, lane shifts, shoulder Work;
   1.2 Shoulder Work with minor encroachments, flagging operations, or one-lane two-way applications;
2. Work duration occupies a location for one (1) or more hours; and
3. Posted speed limit is 25 mph or greater.

Temporary Portable Rumble Strips will be measured by each 11-foot width.

Add the following to **Section 702.5: BASIS OF PAYMENT**

Pay Item	**Pay Unit**
Multi-Directional Slip Base Posts for Construction Signing	Each
Temporary Portable Rumble Strips	Each

August 7, 2020

SPECIAL PROVISIONS
MODIFYING
SECTION 704: PAVEMENT MARKINGS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the first paragraph of **Section 704.3.5: Rates and Tolerances for Painted Markings** and replace with the following:

The Contractor shall apply paint at a rate of 22 to 25 wet mills, (25.15 gal per mile of paint for a solid four (4) inch line and 6.31 gal per mile for a broken four (4) inch line) for permanent markings. The Contractor shall apply other permanent striping widths at appropriate multiples of these gal per mile rates, achieving 22 to 25 wet mills for solid and broken stripes.

Add the following to **Section 704.3.6: Dimension Tolerances**:

The Contractor shall contrast striping and symbols on concrete pavement with a black outline a minimum of two (2) inches in all directions.

Delete the second paragraph of **Section 704.4: Method of Measurement** and replace with the following:

The Department will measure permanent and temporary Retroreflectorized Painted Markings for four (4) inch, six (6) inch, eight (8) inch, 12 inch, and 24 inch widths using inch width to calculate a total length. Legends, symbols and specialty markings will be paid by each.

Delete the Pay Items from **Section 704.5: Basis of Payment** and replace with the following:

Pay Item	**Unit**
Retroreflectorized Painted Markings ____inch	Foot
Temporary Retroreflectorized Painted Markings ____inch	Foot
Retroreflectorized Painted Arrow, Type____	Each
Retroreflectorized Painted Word (____)	Each
Retroreflectorized Painted Symbol, Type____	Each
Retroreflectorized Painted Railroad Crossing	Each

December 23, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 704-A: TEMPORARY MARKING TAPE

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 704-A.4 Method of Measurement** and replace with the following:

The Department will measure temporary Removable and Non-Removable Marking Tape by four (4) inch, six (6) inch, eight (8) inch, 12 inch, and 24 inch widths using inch widths to calculate a total length. Temporary words or symbols will be paid by each.

Delete **Section 704-A.5: Basis of Payment** in its entirety and replace with the following;

Pay Item	**Unit**
Removable Marking Tape _____inch	Linear Foot
Temporary Word or Symbol	Each

Section 704-A.5.1 Work Included in Payment

The following Work and items will be considered as included in the payment for the main items and will not be measured or paid for separately:

1. Repair or replacement of damaged striping due to Contractor's negligence or operations;
2. Furnishing, mixing, and applying adhesive or primers;
3. Standard surface preparation;
4. Mobile traffic control operations for traffic marking operations;
5. Removal of Removable Marking Tape and/or Temporary Word(s) or Symbol (s);
6. Repair or replacement of damaged Removable Marking Tape and Temporary Word(s) or Symbols(s).

December 23, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 704-B: RETROREFLECTIVE PREFORMED PLASTIC MARKINGS (TAPE)

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 704-B.3.1: Placing Retroreflective Preformed Plastic Markings (Tape)**:

The Contractor shall contrast striping and symbols on concrete pavement with a black outline a minimum of two (2) inches in all directions.

December 23, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 704-C: HOT THERMOPLASTIC MARKINGS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 704-C.3: Construction Requirements**:

The Contractor shall contrast striping and symbols on concrete pavement with a black outline a minimum of two (2) inches in all directions.

December 23, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 704-D: PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to **Section 704-D.3.1: Application**:

The Contractor shall contrast striping and symbols on concrete pavement with a black outline a minimum of two (2) inches in all directions.

March 7, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 706: SIGNAL AND LIGHTING SERVICE SYSTEMS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

The following is added to the paragraph below the Pay Items from **Section 706.5: Basis of Payment**:

For the purpose of bidding, the Department will enter into the Bid Schedule a fixed amount for Power Service Installation.

May 24, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 713: DETECTORS

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Sections 713.2.2: Radar Presence Detector (RPD) and 713.2.2.1 thru 713.2.2.11** and replace with the following, respectively:

713.2.2 Radar Presence Detector (RPD)

The Contractor shall provide a Radar Presence Detector (RPD) sensor devices which utilizes Frequency Modulated Continuous Wave (FMCW) radar to provide accurate vehicle detection at the stop bar. The RPD shall have the following features:

1. Detect the real-time presence of both moving and stopped vehicles within a 90° field of view extending from 6 feet to 140 feet from the sensor unit;
2. Automatic or manually configurable to provide detection in 16 zones and ten (10) lanes including curved lanes and lanes separated by islands or medians;
3. Provide detector outputs on 16 channels user-mappable to zones with both AND/OR logic and extend and delay functionality;
4. Capable of mitigating detections from wrong way or cross traffic;
5. Requires no cleaning or adjustment necessary to maintain performance; and
6. Housed in a watertight, corrosion-resistant enclosure compliant with the NEMA 250 Type 4X standard.

The RPD shall have the following operational requirements:

1. Radar Operating Frequency of 24.00 – 24.25 GHz (K-Band);
2. Low voltage operation at 10 - 28 VDC;
3. Low power consumption at less than 10 W;
4. Maintain accurate performance in all weather conditions including rain, freezing rain, snow, wind, dust, fog, and changes in temperature and light, including direct light on sensor at dawn and dusk.
5. Ambient operating temperature range of -40°F to 165°F; and
6. Operational in humidity up to 95% (non-condensing).

713.2.2.1 Radar Advance Detector

The Contractor shall provide Radar Advance Detector (RAD) sensor devices which utilize FMCW radar to provide accurate continuous tracking of vehicles approaching the intersection. The RAD shall have the following:

1. Detect and simultaneously track range and speed of 25 independent vehicles in an area extending from 50 feet to 600 feet from the sensor unit;
2. Dynamically tracks ETA-to-stop-bar as each vehicle changes speed;

3. Automatic or manually configurable to provide detection zones in 5-foot increments;
4. Provide eight (8) channel outputs with four alerts per channel (32 alerts) and four zones per alert (128 zones);
5. Support logic filters for zone output, combinational logic on zone outputs for alert output, and channel output from multiple alerts;
6. Support latched channel output controlled by alerts and timer;
7. Support delay and extend settings used for channel outputs;
8. Support user-configurable high-speed and low-speed detection filters in 1-MPH increments for each zone;
9. Support user-configurable ETA-to-stop-bar filters in 0.1-second increments for each zone;
10. Requires no cleaning or adjustment necessary to maintain performance; and
11. Housed in a watertight, corrosion-resistant enclosure compliant with the NEMA 250 Type 4X standard.

The RPD shall have the following operational requirements:

1. Radar Operating Frequency of 10.50–10.55 GHz (X-band);
2. Low voltage operation at 10 - 28 VDC;
3. Low power consumption at less than 10 W;
4. Maintain accurate performance in all weather conditions including rain, freezing rain, snow, wind, dust, fog, and changes in temperature and light, including direct light on sensor at dawn and dusk.
5. Ambient operating temperature range of -40°F to 165°F; and
6. Operational in humidity up to 95% (non-condensing).

713.2.2.2 Radar Detection Cabinet Interface Unit

The Contractor shall provide a Radar Detection Cabinet Interface Unit (RDCIU) which provides power, connectivity, and surge protection to the sensors (RPD's and RAD's); communicates the detector outputs to the traffic signal controller; and shall have the following features:

1. Compliant with applicable NEMA TS2-2003 standards;
2. Shelf-mounted or 19 inch rack-mounted as directed by the Department's Signal Lab;
3. Six (6) terminal block connectors for connecting to the sensors;
4. One (1) SDLC port for connecting to the traffic signal controller;
5. Communication ports (RJ-11, DB-9, mini-USB, and T-bus) for connecting to a computer to configure the sensors;
6. An Ethernet communication port to connect to the Cabinet Interface Unit via an IP network; and
7. Separate power switches to turn on/off each sensor.

The RDCIU shall have the following operational requirements:

1. Operate on power supply voltage of 100 - 240 VDC;
2. Output voltage to sensors of 24 VDC;
3. Power consumption at 120 W maximum;
4. Transient surge suppression conforming to IEC/EN 61000-4-5 level 3 on the AC power input; and
5. Transient surge suppression conforming to IEC/EN 61000-4-5 level 4 on the sensor ports.

713.2.2.3 Radar Detector Cable
The Contractor shall provide Radar Detector Cable as recommended by the manufacturer consisting of multi-conductor cable in a single jacket to provide the necessary conductors for power and communication between the sensor units and the cabinet interface unit. Conductor size shall be selected per the manufacturer's recommendation, taking into account the length of cable and the operational voltage of the sensor unit.

713.2.2.4 Mounting Hardware
The Contractor shall provide mounting brackets to securely attach the sensors to the traffic signal poles or mast arms with 3/4 inch steel banding. Brackets shall have two (2) hinged joints allowing two (2) axes of rotation for horizontal and vertical positioning. Mounting plate shall be directly compatible with the sensor mounting. Brackets shall be powder-coated aluminum with stainless steel hardware.

713.2.2.5 Warranty, Maintenance and Support

1. The Contractor shall obtain and assign to the Department all manufacturers guarantees or warranties which are normally provided as customary trade practice for items and Materials incorporated into the Work. In the absence of a manufacturer's guarantee, the Contractor shall warrant that mechanical and electrical Equipment and Material incorporated into the Work are free from any defects or imperfections in workmanship and Material for a period of one (1) year after partial Acceptance of the Project. The Contractor shall be responsible for repairing any malfunction or defect in any such Equipment or Material, which develops during the one (1) year period.
2. The Contractor shall supply two (2) sets of installation guides and user manuals for the Equipment incorporated in the Project, one (1) of which shall be submitted to the Project Manager with submittal of manufacturers shop drawings.
3. During the warranty period, technical support by toll-free telephone shall be provided by the manufacturer 24 hours per Day, 365 Days per year, and request for support by telephone shall be answered by manufacturer personnel within one hour.

Add the following **to Section 713.3: Construction Requirements**:

713.3.8 Radar Presence Detector
The Contractor shall install the Radar Presence Detector per the manufacturer's recommendations.

713.3.8.1 Mounting and Positioning
The Contractor shall mount each RPD and RAD sensor at the locations as shown on the Contract and as directed by the manufacturer's representative such that the sensor has an unobstructed view of the approach lanes.

The Contractor shall mount each RPD sensor at a height of 20 feet ±5 feet.

The Contractor shall mount each RAD sensor at a typical height of 25 feet or within the range of 17 feet to 40 feet.

The Contractor shall aim, tilt, and align each sensor per the manufacturer's recommendations and as directed by the manufacturer's representative.

713.3.8.2 Cabling and Connections

The Contractor shall route cabling from the RPD and RAD sensors into the signal pole or mast arm to the pole base and then via conduit to the controller cabinet. Radar Detector Cable shall be continuous from the sensor to the Cabinet Interface Unit with no splices.

The Contractor shall leave sufficient slack in the Radar Detector Cable at the sensor to allow aligning the sensor without causing cable strain and to provide a drip loop that drains rain water away from the connector.

The Contractor shall apply silicone dielectric compound to the sensor unit connector before attaching the Radar Detector Cable.

The Contractor shall provide an SDLC cable as recommended by the manufacturer to connect the RDCIU to the Controller. In the case of multiple RDCIU's, provide SDLC wye cables or a SDLC Hub unit to connect the multiple SDLC devices to the controller.

Add the following Pay Items to **Section 713.5: Basis of Payment**:

Pay Item	**Unit**
Radar Advance Detector	Each
Radar Detector Cable	Foot
Radar Detection Cabinet Interface Unit	Each

Delete **Section 713.5.1 Work Included in Payment** and replace with the following:

The following Work and items shall be considered as included in the payment for Radar Presence Detector or Radar Advance Detector and will not be measured or paid for separately:

1. RPD or RAD sensor unit;
2. Mounting bracket, steel banding and hardware; and
3. Silicone dielectric compound.

The following Work and items shall be considered as included in the payment for Radar Detection Cabinet Interface Unit and will not be measured or paid for separately:

1. AC power cord;
2. Rack or shelf mounting hardware;
3. SDLC Cable(s), SDLC wye cable(s); and
4. Multiport SDLC hub unit.

SPECIAL PROVISIONS
MODIFYING
SECTION 716: LUMINAIRES

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete the second and fourth paragraph of **Section 716.2.1.5.3: Photometric Requirements** and replace with the following, respectively:

The Contractor shall provide a nominal corrected color temperature (CCT) range of 2,700K to 4,500K in accordance with NEMA C78.377. The color rendering index (CRI) shall be 70 or greater.

The Contractor shall provide Luminaire with a minimum efficacy of 100 lumens per watt. The Luminaire shall provide a rated life of 70,000 hours when operated at 77°F (25°C) for 12 hours per Day. The Luminaire shall deliver a minimum of 70% of initial delivered lumens after 70,000 hours of operation. The Contractor shall provide a TM-21 calculation and lumen depreciation factor calculated at 25°C at 70,000 hours upon request.

Delete the fourth to the last paragraph and the third to the last paragraph of **Section 716.2.3: LED High Mast Luminaire** and replace with the following, respectively:

The Contractor shall provide High Mast Luminaire with a minimum efficacy of 100 lumens per watt.

The Contractor shall provide a nominal corrected color temperature (CCT) range of 2,700K to 4,500K in accordance with NEMA C78.377. The color rendering index (CRI) shall be 70 or greater.

Delete the fourth to the paragraph and the third to the last paragraph of **Section 716.2.4: Area Luminaire and Ornamental Luminaires** and replace with the following, respectively:

The Contractor shall provide Area and Ornamental Luminaire with a minimum efficacy of 100 lumens per watt.

The Contractor shall provide a nominal corrected color temperature (CCT) range of 2,700K to 4,500K in accordance with NEMA C78.377. The color rendering index (CRI) shall be 70 or greater.

Delete the second to the last paragraph of **Requirements Section 716.2.5: Underpass Luminaire** and replace with the following:

The Contractor shall provide a nominal corrected color temperature (CCT) range of 2,700K to 4,500K in accordance with NEMA C78.377. The color rendering index (CRI) shall be 70 or greater.

February 11, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 902: QUALITY CONTROL

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 902.10: Basis of Payment** in its entirety.

January 1, 2019

SPECIAL PROVISIONS
MODIFYING
SECTION 904: QUALITY LEVEL ANALYSIS (QLA)

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

904.1 Description Quality Level Analysis
Delete reference to Table 901.7:1, "Quality Level Analysis by the Standard Deviation Method Upper Quality Index QU or Lower Quality Index QL" from Equation(s) 6 and 7 and replace with the following:

Table 904.1:3 "Quality Level Analysis by the Standard Deviation Method Upper Quality Index QU or Lower Quality Index QL".

June 17, 2024

SPECIAL PROVISIONS
MODIFYING
SECTION 905: QUALITY ASSURANCE FOR MINOR PAVING

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 905: QUALITY ASSURANCE FOR MINOR PAVING** in its entirety and replace with the following:

905.1 DESCRIPTION
The Department will sample and test Materials for Acceptance unless otherwise specified in the Contract. Department testing is not for Quality Control.

905.1.1 Department Sampling and Testing for Acceptance
Acceptance sampling and testing will be performed by Department representatives, certified by the Department through TTCP in the applicable test procedures. The testing procedures utilized will be in accordance with test methods and modifications as found in the current TTCP Manual(s), AASHTO or Department methods.

The Department will sample and test in accordance with Section 906, "Minimum Testing Requirements (MTR'S)" or at a lesser sublot size for Assurance purposes as determined by the Project Manager before production of Material begins. If Material appears defective, or if the Project Manager determines that a change in the process or product has occurred, additional sampling and testing may occur.

If the Department performs additional informational sampling and testing, the results will be used only to determine if corrective action needs to be taken by the Contractor and will not be used for Pay Factor Determination.

The Department will provide test results to the Contractor within two (2) Working Days after sampling. Any additional testing by the Department will be provided to the Contractor upon written request.

905.1.2 Independent Assurance Testing
TTCP certified independent personnel will perform Independent Assurance testing on split samples from Quality Control and Assurance programs to ensure that the Contractor and Department field personnel are using correct and accurate procedures and the proper Equipment. These personnel will not have direct responsibility for Quality Control or Assurance testing. Independent Assurance Test results will not be used for Acceptance.

905.1.3 Acceptance
The Department will Accept the constructed product based on inspection and Laboratory testing.

The Department will test samples of Minor PavingType I HMA/WMA before compaction and on cut pavement samples (cores).

The Department will Accept Minor Paving Type I, the constructed product based on the following criteria:

Minor PavingType I:

1. Laboratory air voids as determined in accordance with AASHTO T312, AASHTO T166 and AASHTO T209;
2. Asphalt content as determined by the tank strap method or plant asphalt metering system defined in the Contractor's Quality Control Plan (binder ignition oven calibration samples will not be required);
3. Final thickness of the compacted Material as measured from cores in accordance with ASTM D 3549, or other method as approved by the Project Manager; and
4. Density of the compacted HMA/WMA as determined in accordance with AASHTO T355 Standard Method of Test for In-Place Density of Asphalt Mixtures by Nuclear Methods. Percent compaction will be calculated using the current average Gmm representing that Day.

The Department will test samples of Minor Paving Type II HMA/WMA before compaction and on cut pavement samples (cores).

The Department will Accept Minor Paving Type II, the constructed product based on the following criteria:

Minor Paving Type II:

1. Final thickness of the compacted Material as measured from cores in accordance with ASTM D 3549, or other method as approved by the Project Manager; and
2. Density of the compacted HMA/WMA as determined in accordance with AASHTO T355 Standard Method of Test for In-Place Density of Asphalt Mixtures by Nuclear Methods. Percent compaction will be calculated using the current average Gmm representing that Day.

For Minor Paving Type I and Type II, in order to establish a densometer correlation factor, the Contractor shall provide cores from three (3) locations designated by the Project Manager. A new correlation factor can be requested if a change in Materials, conditions, or densometer has occurred or if the accuracy of the established correlation factor is in question.

For Minor Paving Type I and Type II, the Project Manager may reject Material that appears to be defective based on visual inspection.

905.1.4 Pay Factor Determination

The Department will determine component pay factors in accordance with:

1. Table 905.1.4:1, "Single Test Pay Factor for Correlated In-Place Density";
2. Table 905.1.4:2, "Single Test Pay Factor for Laboratory Air Voids";
3. Table 905.1.4:3, "Single Test Pay Factor for Asphalt Content";
4. Table 905.1.4:4 "Single Test Pay Factor for Thickness"; and
5. Table 905.1.4:5 "HMA/WMA Lift Thickness Requirements."

Table 905.1.4:1
Single Test Pay Factor for Correlated In-Place Density [a]

Percent Compaction	Pay factor (%)
> 97.99	Reject
97.0 – 97.99	90
96.01 – 96.99	95
92.00 – 96.00	105
91.50 – 91.99	95
90.50 – 91.49	90
90.00 – 90.49	80
< 90.00	Reject

[a] Minimum of ten (10) density tests per lot is required

For Projects consisting of single lift overlays or mill and inlay with a single lift of two and a half inches or less, the Project Manager may grant an exception to the mean density target requirement of at least 94.5% of the theoretical maximum density if the Contractor can demonstrate that a minimum of 92.0% cannot be reasonably obtained because of the existing conditions of the Pavement Structure or Subgrade Materials. The Contractor shall demonstrate this by providing non-destructive density results obtained during paving operations witnessed by a State Inspector at the location in question. If the Project Manager grants this exemption, the Contractor shall construct a Roadway test strip and develop an HMA/WMA compaction process to get the highest possible density based on an approved roller's density gain per pass, in accordance with Section 423.3.4.4, "Compaction Equipment". The Project Manager will approve the process, establish a new target value for density and establish a new Acceptance lot only for the portion of the Project addressed herein before paving begins or continues. Regardless of the number of lifts, a minimum density of 91.0% shall be achieved on all NHS routes.

Table 905.1.4:2
Single Test Pay Factor for Laboratory Air Voids [a, b]

Deviation from TV shown on approved JMF	Pay factor (%)
< ±1.4	105
±1.5 to ±1.6	95
±1.7 to ±1.8	85
±1.9 to ±2.0	75
≥ ±2.0	Reject

[a] Minimum of three (3) laboratory air void tests per lot is required
[b] Laboratory air voids obtained on Minor Paving Type II shall not be used for pay determination.

Table 905.1.4:3
Single Test Pay Factor for Asphalt Content [a]

Deviation from TV shown on approved JMF	Pay factor (%)
< ±0.35	100
±0.36 to ±0.55	90

Table 905.1.4:3
Single Test Pay Factor for Asphalt Content [a]

Deviation from TV shown on approved JMF	Pay factor (%)
≥±0.56	Reject

[a] Minimum of three (3) asphalt contents per lot is required

Table 905.1.4:4
Single Test Pay Factor for Thickness

Negative Deviation from Minimum Plan Thickness	Pay factor (%)
Plan Minimum Thickness or Thicker	100
≤1/4 inch	100
> 1/4 inch to 1/2 inch	90
> 1/2 inch to 3/4 inch	75
> 3/4 inch to 1.0 inch	50
> 1.0 inch	Corrective Action [1]

[1] Corrective action includes removal and replacement, overlay, or other corrective actions approved by the Project Manager. Thin or feathered edge surface patching is not Acceptable. If the Contractor elects to overlay the deficient area(s) the overlay lift thicknesses shall meet the requirements of Table 905.1.4:5, "HMA/WMA Lift Thickness Requirements".

Table 905.1.4:5
HMA/WMA Lift Thickness Requirements

HMA/WMA Type	Lift Thickness (Inches)	
	Minimum	Maximum
SP-III	2.5	3.5
SP-IV	1.5	3.0
SP-V	0.75	1.5

The Contractor shall remove and replace rejected Material identified as per Table 905.1.4:1, "Single Test Pay Factor for Correlated In-Place Density", Table 905.1.4:2, "Single Test Pay Factor for Laboratory Air Voids" and Table 905.1.4:3, "Single Test Pay Factor for Asphalt Content".

In lieu of removing and replacing rejected Material, if in the best interest of the Department, the Project Manager may allow the Material to remain in place at 50% of the Bid Item Unit Price.

905.1.5 Price Adjustments

The Department will pay for Accepted quantities of Minor Paving by multiplying the Bid Item Unit Price by the composite pay factor determined on a lot by lot basis by:

Determining each component single test pay factor average as determined by:

1. Table 905.1.4:1, “Single Test Pay Factor for Correlated In-Place Density”;
2. Table 905.1.4:2, “Single Test Pay Factor for Laboratory Air Voids”;
3. Table 905.1.4:3, “Single Test Pay Factor for Asphalt Content”;
4. Table 905.1.4:4 “Single Test Pay Factor for Thickness”; and.
5. Table 905.1.4:5 “HMA/WMA Lift Thickness Requirements.

The composite pay factor for each lot will be determined by multiplying the average of each component single test property pay factor and the weighting factors in Table 905.1.5:1, “Weighting Factors Minor Paving Type I” or Table 905.1.5:2, “Weighting Factors Minor Paving Type II”.

The maximum pay factor per lot is one (1.0). If the composite pay factor for a lot is greater than one (1.0), the pay factor will be set at one (1.0).

Table 905.1.5:1
Weighting Factors
Minor Paving Type I

Characteristic	“f” Factor (%)
Correlated In-place Density	35
Laboratory Air Voids	35
Asphalt Content	20
Thickness	10

Table 905.1.5:2
Weighting Factors
Minor Paving Type II

Characteristic	“f” Factor (%)
Correlated In-place Density	50
Thickness	50

May 12, 2022

SPECIAL PROVISIONS
MODIFYING
SECTION 906: MINIMUM TESTING REQUIREMENT'S (MTR'S)

The 2019 Edition of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete **Section 906: MINIMUM TESTING REQUIREMENT'S (MTR'S)** in its entirety and replace with the following:

906.1 DESCRIPTION

906.1.1 General

This work consists of Minimum Testing Requirement's (MTR's) for the T/LPA and Contractor which includes construction sampling, tests, and testing frequencies of materials incorporated into the Work for acceptance and quality control.

906.1.2 T/LPA Minimum Testing Requirements

Table 906.1.2:1 - EARTHWORK

Item	Test Required	Sampling/ Testing Location	Agency Testing	Contractor Testing	Independent Assurance*
					Project Approach
Embankment, Unclassified Excavation (Section 203)	In-Place Density and Moisture	Roadway	1 per 2,000 C.Y.	N/A	1 per 50,000 C.Y. or minimum 1 per project
	Moisture/Density Tests (Proctor), Soils Classification	Stockpile / Roadway	1 per material type per 20,000 C.Y.		1 per 50,000 C.Y. or minimum 1 per project if less than 50,000 C.Y.
Borrow (Section 203.2.1.3)	AASHTO T-190 R-Value, Soils Classification	Borrow Pit	N/A	1 per 10,000 C.Y.	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:1 - EARTHWORK					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Road Bed Embankment (Section 203.3.5.1)	In-Place Density and Moisture	Roadway	1 per 2,500 S.Y.	N/A	Minimum 1 per project
	Moisture/ Density Tests (Proctor), Soils Classification		1 per material type		
Foundations / Backfill for Culverts and Minor Structures (Section 206)	In-Place Density and Moisture	Structure	See Table A	N/A	Minimum 1 per project
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
	Gradation		1 per 500 C.Y.		
	Electrochemical, where specified.		N/A	1 per material type	N/A
Subgrade Preparation (Section 207)	In-Place Density and Moisture	Roadway	1 per 3,000 S.Y.	N/A	1 per 30,000 S.Y. or minimum 1 per project if less than 30,000 S.Y.
	Moisture/ Density Tests (Proctor), Soils Classification		1 per material type		
Linear Grading and Blading and Re-shaping (Sections 208, 209)	In-Place Density and Moisture	Roadway	1 per half mile	N/A	1 per 5 miles
	Moisture/ Density Tests (Proctor), Soils Classification		1 per material type		

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:1 - EARTHWORK					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Backfill for Major Structures (Section 210)	In-Place Density and Moisture	Structure	See Table A	N/A	1 per 5,000 C.Y.
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		Minimum 1 per project
	Gradation				
Treated Subgrade (Section 306)	In-Place Density and Moisture	Roadway	1 per 3,000 S.Y.	N/A	1 per 30,000 S.Y. or minimum 1 per project if less than 30,000 S.Y.
	Gradation				
	Moisture/ Density Tests (Proctor), Soils Classification		1 per material type		
	AASHTO T-290 Sulfate Testing	Borrow Pit	N/A	1 per 10,000 C.Y.	N/A
Backfill for Mechanical Stabilized Earth (MSE) Retaining Structures (Section 506)	In-Place Density and Moisture	Structure	See Table A	N/A	Minimum 1 per project
	Moisture/ Density Tests (Proctor)	Stockpile	1 per material type	1 per material type	
	Gradation, PI		1 per 500 C.Y.		
	Soils Classification Direct Shear, Electro Chemical		N/A		N/A
Foundations for Slope and Erosion Protection Structures (Section 602)	In-Place Density and Moisture	Structure	1 per structure	N/A	N/A
	Moisture / Density Tests (Proctor), Soils Classification	Foundation material location	1 per material type		

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:1 - EARTHWORK					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Backfill for Soil and Drainage Geotextiles (Section 604)	In-Place Density and Moisture	Roadway	1 per lift	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Backfill for Drains (Section 605.3.4)	In-Place Density and Moisture	Roadway	1 per 1,000 L.F.	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Foundations for Sidewalks, Drive Pads and Concrete Median Paving (Section 608)	In-Place Density and Moisture	Roadway	1 per 150 S.Y.	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Foundation material location	1 per material type		
Bed Course Material for Sidewalks, Drive Pads and Concrete Median Paving (Section 608)	In-Place Density and Moisture	Roadway	1 per 150 S.Y.	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Foundations for Curb and Gutter (Section 609)	In-Place Density and Moisture	Roadway	1 per 500 L.F. or as site locations require	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Foundation material location	1 per material type		

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:1 - EARTHWORK					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Bed Course Material for Curb and Gutter (Section 609)	In-Place Density and Moisture	Roadway	1 per 500 L.F. or as site locations require	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Foundations / Backfill for Cattle Guards (Section 610)	In-Place Density and Moisture	Structure	See Table A	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Bedding Material for Cattle Guards (Section 610)	In-Place Density and Moisture	Structure	1 per structure	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Stockpile	1 per material type		
Foundations / Backfill for Drop Inlets and Junction Boxes (Section 623)	In-Place Density and Moisture	Structure	See Table A	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Foundation material location	1 per material type		
Foundations / Backfill for Utilities (Section 660)	In-Place Density and Moisture	Structure	See Table A	N/A	N/A
	Moisture/ Density Tests (Proctor), Soils Classification	Foundation material location	1 per material type		

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:2 - TABLE A

STRUCTURE DEFINITIONS, FOUNDATION AND BACKFILL REQUIREMENTS FOR ACCEPTANCE

1. Transverse or skewed culvert or concrete box culvert (CBC), not connected to an underground drainage network, including end sections, wing walls if backfilled simultaneously, structural plate pipe, storm drains, and sewer lines (Note 1):

   Foundation: One density per 100 linear feet. For pipe in a battery, up to 4 pipes may be considered as a unit for purposes of foundation density.

   Backfill Density: 1 per 2 foot of fill per side* and to top of trench per 100 linear feet (Note 2).

   * For a battery of pipes, the number of backfill densities required will be as follows:

      One-Half (1/2) of the required densities for up to 4 pipes.

      One-Third (1/3) of the required densities for more than 4 pipes.

2. End section or CBC wing wall if backfilled separately from culvert pipe or CBC (Note 2):

   Backfill Density: 1 per 2 foot of fill per side.

3. Drop inlet (D.I.), junction box, cattle guard, light and signal base, manhole, etc.:

   Foundation: 1 per structure.

   Backfill Density: 1 per 2 foot of fill.

4. Underground drainage network including interruptions such as D.I., manhole, junction box, plug, service connection, slotted drain, etc., if backfilled simultaneously:

   Foundation:, One per 100 linear feet.

   Backfill Density: 1 per 2 foot of fill per side and to top of trench per 100 linear feet (Note 2).

5. Retaining wall / MSE wall:

   Foundation: One foundations density per 100 linear feet.

   Backfill Density: 1 per 2 foot of fill per 100 linear feet.

6. Bridge abutment back wall, wing wall or approach slab:

   Backfill Density: 1 per 6 inches of fill.

7. Pier footing:

   Foundation: 1 per footing.

   Backfill Density: 1 per 6 inches of fill.

8. Waterlines, electrical conduit, telephone cable or gas line, etc., within roadway prism (traveled area and shoulder) *if trench width sufficient for density testing:*

   Foundation: One per 100 linear feet.

   Backfill Density: 1 per 2 foot of fill per 100 linear feet.

9. Waterline, electrical conduit, telephone cable or gas line, ect. outside the roadway prism (traveled area and shoulders) *if trench width sufficient for density testing:*

   Foundation: 1 per 300 linear feet.

   Backfill Density: 1 per 2 foot of fill per 300 linear foot.

Notes:

1. All extensions will be considered increments and as such structure units.
2. Determination of Backfill Depths Governing Minimum Testing Criteria Requirements:
   a. When backfill construction is performed in trench conditions, the depth of compacted backfill to be tested shall be measured from the foundation to the top of the trench.
   b. When backfill construction is performed in non-trench conditions, the depth of compacted backfill to be tested shall be determined through the use of the appropriate NMDOT standard drawings.
   c. When one type of material is used for multiple items, only one proctor will be required per material type.

Table 906.1.2:3 - BASE COURSE					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Base Course (Section 303)	In-Place Density and Moisture	Roadway after compaction	1 per 2,000 tons	N/A	1 per 20,000 tons with Agency or minimum 1 per project
	Moisture/Density Tests (Proctor)	Stockpile	1 per material type		
	Gradations	Processed material from windrow or stockpile	1 per project		
	FF, LL, PI		1 per 4,000 tons		
	Thickness	Roadway after compaction	1 per 1,000 tons		

Table 906.1.2:4 - AGGREGATES					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Processing, Placing and Compacting Existing Pavement (Section 302)	In-Place Density	Roadway	1 per 1,000 S.Y.	N/A	1 per 50,000 S.Y. or minimum 1 per project
	Gradation (Dry field sieve verification per TTCP)		1 per 5,000 S.Y.		
Rip Rap Material (Section 602)	LA Wear & Soundness (AASHTO T-96 AASHTO T-104)	Source	N/A	1 per year per pit	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:5 - MINOR PAVING HOT MIX ASPHALT (HMA)/Warm Mix Asphalt (WMA)						
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance***	**Project Approach**
HMA/WMA Minor Paving (Section 416)	Asphalt Content (Strap Method)	Asphalt Plant	N/A	1 per day	N/A	
	Air Voids	Roadway	3 per lot	N/A	Minimum of 1 per project over 5,000 tons	
	Roadway Compaction Nuclear Densometer *		10 per lot	Contractor to provide three (3) cores for Correlation of Densometer	N/A	
	Thickness		1 per lot	Obtain Cores		
Open Graded Friction Course (Section 403)	Gradation, FF	Cold Feed	1 per 3,000 tons with a minimum of 1 per day	1 per 250 tons 1st 2,000 tons then 1 per 500 tons after 2,000 tons	Minimum 1 per project	
		Crushing	N/A	1 per 1,000 tons		
	Performance Graded Asphalt Binder	From storage tank or Delivery Truck	1 sample consisting of three separate 1-quart increments per Project	Samples will be obtained by contractor personnel and observed by Department personnel	N/A	

Table 906.1.2:6 - Asphalt Recycling						
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance***	**Project Approach**
Hot In-Place Recycling (Remixing Method) (Section 412)	Roadway Density (Nuclear Densometer)	Roadway	1 per 3,000 S.Y.	N/A	N/A	
Single-Machine Hot In-Place Surface Repaving (Section 413)	Roadway Density (Nuclear Densometer)	Roadway	1 per 3,000 S.Y.	N/A	N/A	
	HMA/WMA	Windrow / Hopper	See Section 416 Minor Paving			

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:6 - Asphalt Recycling					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Pavement Surface Restoration (In-Situ) (Section 415)	Roadway Density	Roadway	1 per 3,000 S.Y.	N/A	N/A
	Bulk Specific Gravity		2 sets per day		
Performance Graded Asphalt Binder (Section 402)	If required in the Contract Documents	N/A	N/A	N/A	N/A

Table 906.1.2:7 - Asphalt Mineral Admixture Materials					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Asphalt Emulsion (Section 402)	The manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	N/A	N/A
Mineral Admixtures (Section 402)	The manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	N/A	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:8 - MAJOR PAVING (Sections 423/424 / 900's) HOT MIX ASPHALT (HMA), WARM MIX ASPHALT (WMA)					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
HMA/WMA Superpave (Section 423/424)	Asphalt Content, Gradation, Gmm, Gmb, Air Voids,VMA, VFA, DP	Roadway	1 per 5,000 tons. Gmm will be determined at least once per day.	1 per 2,000 tons. Gmm will be determined at least twice per day.	Minimum 1 per project
	Roadway Compaction (Cores)				
	Roadway Compaction (nuclear/non-destructive)		N/A	As needed	N/A
	FF, , SE, F&E, FAA, Moisture	Cold Feed before addition of Mineral Admixtures			
Performance Graded Asphalt Binder (Section 402)	If required in the Contract Documents	N/A	N/a	N/A	N/A
Asphalt Emulsion (Section 402)	The manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	N/A	N/A
Mineral Admixtures (Section 402)	The manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	N/A	N/A

Table 906.1.2:9 - Non QLA PORTLAND CEMENT CONCRETE Minor Structures, Curb & Gutter, Side Walks, etc. (509, 510, 511, 521)					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Fine Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete production	1 per week during concrete production	1 per project

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:9 - Non QLA PORTLAND CEMENT CONCRETE					
Minor Structures, Curb & Gutter, Side Walks, etc. (509, 510, 511, 521)					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Coarse Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete production	1 per week during concrete production	1 per project
	FF, F&E		N/A	Minimum 1 per project per course aggregate type	N/A
Non-Shrink Mortar Aggregate	Manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	NA	N/A
Project Acceptance Test	Compressive Strength Cylinders and Plastic Properties (Slump, Unit Weight, Calculated Air Content, Temperature)	See Table B	Each mix design per day of placement. Test the first three loads, with one randomly sampled for one set of cylinders. Sample for testing and cylinders, one random load from each subsequent 6 load sublot.	N/A	1 per project

Table 906.1.2:10 - Non QLA PORTLAND CEMENT CONCRETE					
Major Structures, Substructures, Drilled Shafts (502, 509, 510, 511, 521)					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Fine Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete production	1 per week during concrete production	1 per project

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:10 - Non QLA PORTLAND CEMENT CONCRETE					
Major Structures, Substructures, Drilled Shafts (502, 509, 510, 511, 521)					
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**
Coarse Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete production	1 per week during concrete production	1 per project
	F.F, F&E		N/A	Minimum 1 per project per coarse aggregate type	N/A
Non-Shrink Grout Aggregate	Manufacture's certificate of compliance will suffice for testing credits	N/A	N/A	N/A	N/A
Project Acceptance Test	Compressive Strength Cylinders, and Plastic Properties (Slump, Unit Weight, Calculated Air Content, Temperature)	See Table B	Each mix design per day of placement. Test the first three loads, with one randomly sampled for one set of cylinders. Sample for testing and cylinders, one random load from each subsequent 6 load sublot.	Each mix design per day of placement. Test the first three loads and one load from each 6 load sublot for plastic properties.	1 per project

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:11 - Non QLA PORTLAND CEMENT CONCRETE PAVEMENT (509,451)						
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**	**State Materials Bureau**
Fine Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete placement	1 per week during concrete production	1 per project	N/A
	F.F., F&E		N/A	Minimum 1 per project per coarse aggregate type	N/A	
Coarse Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete placement	1 per week during concrete production	1 per project	N/A
	F.F., F&E		N/A	Minimum 1 per project per coarse aggregate type	N/A	
Project Acceptance Test	Compressive Strength Cylinders, and Plastic Properties (Slump, Unit Weight, Air Content, Temperature)	See Table B	Each mix design per day of placement. Test the first three loads, with one randomly sampled for one set of cylinders. Sample for testing and cylinders, one random load from each subsequent 6 load sublot.	Each mix design per day of placement. Test the first three loads and one load from each 6 load sublot for plastic properties.	1 per 10,000 S.Y.	N/A
	Thickness	Roadway	1 per 300 cy	N/A	N/A	
Environmental Conditions	Evaporation Rate	Placement Site	N/A	Evaporation Potential determined at intervals not greater than 5 minutes until final curing system in place	N/A	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:12 - Non QLA Superstructure Concrete (509, 510, 512)						
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance*** **Project Approach**	**State Materials Bureau**
Fine Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete placement	1 per week during concrete production	1 per project	N/A
	F.F., F&E		N/A	Minimum 1 per project per coarse aggregate type	N/A	
Coarse Aggregates	Gradation	Stockpile	1 per 2 weeks during concrete placement	1 per week during concrete production	1 per project	N/A
	F.F., F&E		N/A	Minimum 1 per project per coarse aggregate type	N/A	
Project Acceptance Test	Compressive Strength Cylinders, and Plastic Properties (Slump, Unit Weight, Air Content, Temperature)	See Table B	Each mix design per day of placement. Test the first three loads, with one randomly sampled for one set of cylinders. Sample for testing and cylinders, one random load from each subsequent 3 load sublot.	Each mix design per day of placement. Test the first three loads and one load from each 3 load sublot for plastic properties.	1 per 300 cy	N/A
Environmental Conditions	Evaporation Rate	Placement Site	N/A	Evaporation Potential determined at intervals not greater than 5 minutes until final curing system in place	N/A	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:13 - QLA PORTLAND CEMENT CONCRETE PAVEMENT (450)						
Item	**Test Required**	**Sampling/ Testing Location**	**Agency Testing**	**Contractor Testing**	**Independent Assurance***	**State Materials Bureau**
					Project Approach	
Fine Aggregates	Gradation	Stockpile	1 per week during concrete production	1 per day per day of production	Minimum 1 per project	Referee Testing
Coarse Aggregates	Gradation, F.F., F&E	Stockpile	1 per week during concrete production	1 per day per day of production	Minimum 1 per project	Referee Testing
Project Acceptance Test	Compressive Strength Cylinders, and Plastic Properties (Slump, Unit Weight, Calculated Air Content, Temperature)	See Table B	1 per 500 C.Y.	One set of cylinders from one of the first three trucks. 1 set per 125 C.Y. thereafter	1 per 2,500 cy	Referee Testing
			1 per 500 C.Y.	For each of the first three trucks. 1 set per 125 C.Y. from the trucks selected for compressive strength testing thereafter.		
	Thickness	Roadway	1 per 5,000 S.Y.	1 per 2,500 S.Y.	N/A	
Environmental Conditions	Evaporation Rate	Placement Site	N/A	Evaporation Potential determined at intervals not greater than 5 minutes until final curing system in place	N/A	N/A

* Project Quantities less than the minimum Agency Testing requirement do not require IA Testing if Agency Testing is certified by the Construction Engineer of Record.

Table 906.1.2:14 - TABLE B

Method of Placement	**Sample Location**
Pumped	Point of discharge from pump into structure
Direct Discharge from Truck	At end of discharge chute of truck
Crane and Bucket	From discharge chute of bucket
Conveyor belt	From material on roadway after being discharged from conveyor
Slip Form (Curb and Gutter/Barrier Walls)	Point of discharge into extrusion machine
Slip Form Paver (PCCP)	From grade in front of paving machine
Drill Shafts	At end of discharge chute of truck

Table 906.1.2:15 - Tolerances for Comparison of *Independent Assurance Sample Tests* to Acceptance and Process Control Tests

CHARACTERISTICS	**TOLERANCES**
Moisture/Density Test (Proctor)	± 3.0 PCF*, ± 2 Units for Moisture
In Place Moisture/Density (Roadway)	± 3.0 PCF, ± 2 Units for Moisture
Plasticity Index (P.I.)	± 3 Units

*Only if proctors are run by both District and Project. If proctors are not run by both District and Project ± 5.0 PCF

GRADATION	**TOLERANCES**
1 1/2" to 3/4"	± 6 Units
1/2" to No. 4	± 5 Units
No. 8 through No. 200	± 4 Units
Fractured Faces	± 5 Units
Flat & Elongated	± 5 Units
Fine Aggregate Angularity	± 3 Units
Sand Equivalent	± 4 Units
Aggregate Specific Gravity	± 0.020

CONCRETE	**TOLERANCES**
Slump	± 0.5 Inch
Unit Weight	± 2.0 PCF
Compressive Strength	Within-test coefficient of variation less than 5 %

HOT MIX ASPHALT (HMA)/ WARM MIX ASPHALT (WMA)	**TOLERANCES**
Roadway Density (Cores from project, retained by Agency and Contractor Personnel)	± 0.025 Units

Density (Nuclear)	± 4 Units
VMA	± 1.0 Units
Asphalt Content (Ignition Burn Oven)	± 0.50
Bulk Specific Gravity at Ndes	± 0.025 Units
Maximum Specific Gravity	± 0.020 Units
Air Voids	± 1.5 Units

SECTION 8

Supplemental Specifications

Section 26 00 00	Electrical General Provisions
Section 26 05 03	Electrical Connections for Equipment
Section 26 05 19	Wires and Cables
Section 26 05 26	Grounding
Section 26 05 30	Electrical Boxes and Fittings
Section 26 05 35	Raceways
Section 26 27 16	Cabinets and Enclosures
Section 26 27 26	Wiring Devices
Section 26 31 00	Photovoltaic Collectors

÷SECTION 26 0000 - ELECTRICAL GENERAL PROVISIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to Division 26 work.

1.2 DESCRIPTION OF WORK

A. General: This section specifies several categories of provisions for electrical work including:

1. Certain adaptive expansions of requirements specified in previous sections of the Contract Book.
2. General performance requirements within the electrical systems as a whole
3. General work to be performed as electrical work, because of its close association.

B. As noted in Section 5 "NTC **Build America/Buy America"** the Federal funding for this project is less than $500,000. Consequently, the Federal Build America/Buy America material requirement does not apply to the bid for this project. If the Federal funding exceeds $500,000 the contractor will receive written notification by Addenda or Change Order.

1.3 SUMMARY OF ELECTRICAL WORK

A. Drawings: Refer to the Index of Drawings on Sheet 1-3 of the plan set for graphic representations, schedules and notations showing the scope of work.

B. Specifications: Refer to the Division 26 sections for the primary technical specifications of electrical work.

C. General Outline: The facilities and systems of the electrical work can be described (but not by way of limitation) as follows: 1) Modifications to (2) separate electrical services to accommodate a new PV meter, 2) AC and DC cabling for a new solar array, 3) New ground mounted solar array, 3) PV modules, inverters, microgrid controller, Battery Energy Storage System (BESS), 3) application to EPE for (2) new DG interconnect systems for 10kw-100kw systems.

1.4 COORDINATION OF ELECTRICAL WORK

A. General: Refer to the Contract Book as appropriate for general coordination requirements applicable to the entire work. It is recognized that the contract documents are diagrammatic in showing certain physical relationships. Interface with other work and with the Owner Bus operation. Coordination with El Paso Electric is the exclusive responsibility of the Contractor.

1. Arrange electrical work in a neat, well organized manner with conduit and similar services running parallel with primary lines of the building construction.

2. Locate operating and control equipment properly to provide easy access, and arrange entire electrical work with adequate access for operation and maintenance.

B. Coordination Drawings: For areas, where several elements of electrical work must be sequenced and positioned with precision in order to fit into the available space, prepare coordination drawings (shop drawings) showing the actual physical dimensions (at accurate scale) required for the installation. Prepare and submit these coordination drawings, if required, prior to purchase – fabrication purchase-fabrication-installation of any of these elements involved in the coordination.

C. The drawings, Contract Book and these specifications are complementary, each one to the other, and what is called for by one shall be as binding as if called for by both. Carefully examine the drawings and specifications and report any discrepancies affecting the work to the Engineer. The Engineer will issue such written instructions or interpretations as may be required.

D. The electrical plans are diagrammatic, but shall be followed as closely as actual construction and the work of the other trades will allow. Such minor changes as are necessary to make the electrical work conform to the work of other trades and to the building shall be made without cost to the Owner. Minor changes are things such as moving a light switch within a room to be on the proper side of the door swing, or moving a light fixture over one or two ceiling tiles.

E. Branch circuit numbers are for guidance only and need not necessarily conform to the finished job. Actual circuit numbers used shall be recorded on the record documents, and noted correctly on the panel schedules.

F. The maximum number of circuits combined in one raceway shall be three; no circuit shall be combined without prior approval of the Engineer or unless specifically shown on the drawings.

1.5 QUALITY ASSURANCE AND STANDARDS

A. General: Refer to sections 1 through 7 as appropriate, Supplementary conditions for general administrative/procedural requirements related to compliance with codes and standards. Specifically, for the electrical work (in addition to standards specified in individual work sections), the following standards are imposed, as applicable to the work in each instance:

1. AWS standards for welding.
2. ANSI C 2, National Electrical Safety Code.
3. NECA standards for installation.
4. NEMA standards for materials and products

1.6 LAWS, CODES AND ORDINANCE

A. All work and material shall conform to the requirements of OSHA and all national and state Laws and ordinances having jurisdiction at the job site. The (NEC) National Electrical Code, 2020 Edition, or latest edition being enforced, shall be strictly adhered to NEC requirements are considered "minimum requirements". Where requirements of the contract documents exceed NEC, the contract documents govern.

B. Contractors shall be duly licensed to perform the work required.

C. Permits are required.

D. Upon completion of the work, furnish to the Owner a certificate of final inspection and approval from the electrical inspection bureau having jurisdiction.

E. All electrical systems should be grounded in strict accordance with the requirements of the National Electrical Code.

1.7 INDUSTRY PUBLICATION STANDARDS

A. The publications and standards of the latest issue at the time of bid, of the following organizations, where referenced in these specifications or on the drawings, shall apply:

1. ANSI---American National Standards Institute
2. ASTM---American Society of Testing and Materials
3. CBM----Certified Ballast Manufacturers Association
4. IEEE---Institute of Electrical and Electronic Engineers
5. IPCEA--Insulated Power Cable Engineer's Association
6. NEC----National Electrical Code
7. NECA---National Electrical Contractors Association
8. NEMA---National Electrical Manufacturers Association
9. NESC---National Electrical Safety Code
10. NFPA---National Fire Protection Association
11. UL-----Underwriters Laboratory

1.8 SUBMITTALS

A. General: Refer to the Contract Book for requirements concerning work related and administrative submittals.

B. General:

1. Electronic Submittal data is acceptable. Provide a table of contents listing items in order of specification section and paragraph number.
2. Submittals shall consist of detailed shop drawings, specifications, catalog "cuts" and data sheets containing physical and dimensioned information, performance data, electrical characteristics, materials used in fabrication, material finish and those which are excluded.
3. Contractor agrees that shop drawing submittals are not change orders; that the purpose of

shop drawing submittals by the contractor is to demonstrate that the contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing the fabrication and installation methods he intends to use.

C. Specific Requirements: The following items shall be submitted (as a minimum) in accordance with Paragraphs 1.08.B.1 through 3 (above):

1. Conduit and fittings.
2. 120-600 Volt Wiring
3. Meter Cans and gutters
4. Safety switches.
5. Grounding.
6. DC Solar wiring.
7. Inverters, AC and DC combiners
8. BESS, with microgrid controller and Automatic Transfer Switch
9. Ground mount PV array frame system with helix support system with engineered plans

1.9 PRODUCT HANDLING

A. Use all means necessary to protect electrical materials and equipment before, during and after installation and to protect the installed work of other trades. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer and at no extra cost .

1.10 WARRANTY, GUARANTEE

A. As described in the Contract Book the work to be performed shall be guaranteed for a period of one year after substantial completion.

1.11 PRIOR APPROVAL BY THE ENGINEER OF RECORD (EOR)

A. Where the Division 26 Specifications and Contract Plans allow the contractor discretion in the selection of material or installation methods the contractor shall receive written prior approval for such material or installation methods from the EOR.

PART 2 PRODUCTS

A. General: Refer to the Contract Book for general requirements on products, materials and equipment. The following provisions expand the requirements as applicable to electrical work:

1. All material shall be new and shall bear the label of the Underwriter's Laboratories, Inc., or be listed under reexamination service. All materials shall be of the best grade and latest pattern of manufacturer as specified.
2. All work shall be performed in a neat, workmanlike manner and shall present a neat

mechanical appearance when completed.

3. All similar materials and equipment shall be the product of the same manufacturer.

4. Where no specific material, apparatus or appliance is mentioned, any first-class product made by a reputable manufacturer may be used, providing it conforms to the contract requirements and meets the approval of the Engineer.

5. Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current and standard design

   a. Altitude: Equipment affected by altitude shall perform satisfactorily for the function intended at the altitude of the project site.
   b. Compatibility: Provide products which are compatible with other products of the electrical work and with other work requiring interface with the electrical work, including electrical connections and control devices. For exposed electrical work, coordinate colors and finishes with other work.
   c. Work Quality: Fabrication, erection and installation of the complete electrical system shall be done in a first class workmanlike manner by qualified personnel experienced in such work and shall proceed in an orderly manner so as not to hold up the progress of the project. The Contractor shall check all areas and surfaces where electrical equipment material is to be installed, removed or relocated and report any unsatisfactory conditions to the Engineer before starting work. Commencement of work signifies this Contractor's acceptance of existing conditions. In the acceptance or rejection of the finished installation, no allowance will be made for lack of skill on the part of the workmen.

PART 3 EXECUTION

3.1 ELECTRICAL SYSTEM IDENTIFICATION

A. General: Provide engraved plastic laminated nameplates at all locations of major units of electrical equipment including panelboards, control centers, alarm and similar systems. Nameplates shall be constructed from laminated phenolic plastic, 1/8 inch thick, 3-ply with black surfaces and white core. Engraving shall be with Roman Gothic lettering, 3/16 inch high, appropriately spaced. Nameplates shall be attached to control devices by use of self tapping flat head chromium plated screws unless approved otherwise. Screw tips on inside of device cover shall be filed to provide a smooth, non-abrasive finish. Gluing, taping and riveting of nameplate to control device is not acceptable. Nameplate information shall include name of panel/equipment, panel electrical characteristics and branch/feeder circuit designation which feeds it. Nomenclature on nameplate(s) shall be similar to the following examples:

Panelboards:	Panel L1CA 120/208V, 3PH, 4W CCT. A-28

3.2 EXCAVATING FOR ELECTRICAL WORK

A. General: The work of this article is defined to include whatever excavating and backfilling is necessary to install the electrical work. Coordinate with weather conditions and provide temporary facilities needed for protection and proper performance of excavating and backfilling.

3.3 CONCRETE FOR ELECTRICAL WORK

A. General: The work of this article is defined to include whatever concrete work is necessary or shown specifically to install the electrical work. Refer to the plans for the equipment pad detail and concrete PSI requirement. The concrete pads shall have a concrete cylinder sample taken for a break test.

3.4 TESTING AND COORDINATION

A. General: Refer to the Contract Book for general closeout requirements for the project. Upon completion of the work, the various systems operated under load conditions shall be tested for short circuits and grounds in accordance with the method and resistance values outlined in the National Electrical Code and for load balance on feeders and branch circuits.

B. The complete system shall operate satisfactorily in every respect. Make any repairs or adjustments necessary to this end to the satisfaction of the Engineer.

C. Furnish all instruments and labor for testing.

3.6 SAFETY

A. Contractor shall not connect permanent utility power to the electrical distribution system until it is safe. Contractor shall secure all panel locations or utilize lock-out/tag-out procedures. Perform work in accordance with OSHA, NFPA 70, NFPA 70E, NESC and other applicable codes to maintain electrical safety at the construction site.

3.7 MISCELLANEOUS ITEMS

A. Miscellaneous items not covered in these specifications shall be as indicated on the drawings, installed and connected by the proper method and as recommended by the manufacturer.

3.8 TRAINING

A. The contractor shall provide at least 4 hours of train the Owner on the use and maintenance of the invertors, PV modules and the BESS. Two hours of training shall occur at start-up. An additional 2 hours shall be provided within 3 months as requested by the Owner.

3.8 RECORD DOCUMENTS

A. During progress of the Work, maintain an accurate record of the installation of the system. Maintain these drawings as called for in the Contract book.

End of Section

SECTION 26 0503 - ELECTRICAL CONNECTIONS FOR EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

B. This section is a Division 26 Basic Materials and Methods section, and is part of each Division - 26 section making reference to electrical connections for equipment specified herein.

1.2 DESCRIPTION OF WORK

A. Extent of electrical connections for equipment is indicated by drawings and schedules. Electrical connections are hereby defined as connections used for providing electrical power to equipment.

B. Applications of electrical connections specified in this section include the following:

1. To transformers and similar current adjustment features of equipment.
2. To grounds including earthing connections.
3. To solar pv panels, inverters, batteries, etc.

C. Junction boxes and disconnect switches required for connecting motors and other electrical units of equipment are specified in applicable Division-26 sections and are work of this section.

D. Electrical identification for wire/cable conductors is specified in Division-26 section, "Electrical Identification", and is work of this section.

E. Raceways and wires/cables required for connecting electrical units of equipment are specified in applicable Division-26 sections and are work of this section.

F. Refer to other Division-26 sections for junction boxes and disconnect switches required for connecting motors and other electrical units of equipment; not work of this section.

1.3 QUALITY ASSURANCE

A. Manufacturer: Firms regularly engaged in manufacture of electrical connectors and terminals, of types and ratings required, and ancillary connection materials, including electrical insulating

tape, soldering fluxes, and cable ties, whose products have been in satisfactory use in similar service for not less than 5 years.

B. Installer's Qualifications: Firms with at least 2 years of successful installation experience with projects utilizing electrical connections for equipment similar to that required for this project.

C. NEC Compliance: Comply with applicable portions of NEC as to type of products used and installation of electrical power connections (terminals and splices), junction boxes, motor starters, and disconnect switches.

D. IEEE Compliance: Comply with Std. 241, "IEEE Recommended Practice for Electric Power Systems in Commercial Buildings" pertaining to connections and terminations.

E. ANSI Compliance: Comply with applicable ANSI/NEMA and ANSI/EIA standards pertaining to products and installation of electrical connections for equipment.

F. UL Compliance: Comply with Ul Std. 486A, "Wire Connectors and Soldering Lugs for Use with Copper Conductors" including, but not limited to, tightening of electrical connectors to torque values indicated. Provide electrical connection products and materials which are UL-listed and -labeled.

G. ETL Compliance: Provide electrical connection products and materials which are ETL-listed and -labeled.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's data on electrical connections for equipment products and materials.

B. None Required.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver electrical connection products wrapped in proper factory-fabricated type containers.

B. Store electrical connection products in original cartons and protect from weather, construction traffic and debris.

C. Handle electrical connection products carefully to prevent breakage, denting, and scoring finish.

PART 2 - PRODUCTS

2.1 MATERIALS AND COMPONENTS

A. General: For each electrical connection indicated, provide a complete assembly of materials, including but not necessarily limited to, pressure connectors, terminals (lugs), electrical insulating tape, heat-shrinkable insulating tubing, cable ties, solderless wire nuts, and other items and accessories as needed to complete splices and terminations of the type indicated.

B. Metal Conduit, Tubing and Fittings:

1. General: Provide metal conduit, tubing and fittings of the types, grades, sizes and weights (wall thicknesses) indicated for each type service. Where types and grades are not indicated, provide proper selection as determined by Installer to fulfill wiring requirements and comply with NEC requirements for raceways. Provide products complying with Division-26 basic materials and methods section "Raceways", and in accordance with the following listing of metal conduit, tubing and fittings.

    a. Rigid steel conduit.
    b. Rigid metal conduit fittings.
    c. Electrical metallic tubing.
    d. EMT fittings.
    e. PVC Sch 40 conduit and fittings
    f. PVC Sch 80 conduit and fittings
    g. Flexible metal conduit.
    h. Flexible metal conduit fittings.
    i. Liquid-tight flexible metal conduit.
    j. Liquid-tight flexible metal conduit fittings.

C. Wire, Cable, and Connectors:

1. General: Provide wires, cables and connectors complying with Division 16 basic electrical materials and methods section "Wires and Cables".

2. Wires/Cables: Unless otherwise indicated, provide wires/cables (conductors) for electrical connections which match, including sizes and ratings, of wires/cables which are supplying electrical power. Provide copper conductors with conductivity of not less than 98% at 20 degrees C (68 degrees F).

3. Connectors and Terminals: Provide electrical connectors and terminals which mate and match, including sizes and ratings, with equipment terminals and are recommended by equipment manufacturer for intended applications.

4. Electrical Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing and boots, electrical solder, electrical soldering flux, wirenuts and cable ties as recommended for use by accessories manufacturers for type services indicated.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect the area and conditions under which electrical connections for equipment are to be installed. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer. Contractor has full responsibility to verify whether circuit is energized or not and to perform all necessary lock-out/tag-out.

3.2 INSTALLATION OF ELECTRICAL CONNECTIONS

A. Install electrical connections as indicated; in accordance with equipment manufacturer's written instructions and with recognized industry practices, and complying with requirements of UL, NEC and NECA's "Standard of Installation" to ensure that products fulfill requirements.

B. Coordinate with other work, including wires/cables, raceway and equipment installation, as necessary to properly interface installation of electrical connections for equipment with other work.

C. Connect electrical power supply conductors to equipment conductors in accordance with equipment manufacturers' written instructions and wiring diagrams. Mate and match conductors of electrical connections for proper interface between electrical power supplies and installed equipment.

D. Cover splices with electrical insulation equivalent to, or of greater insulation resistivity rating, than electrical insulation rating of those conductors being spliced.

E. Prepare cables and wires, by cutting and stripping covering, armor, jacket and insulation properly to ensure a uniform and neat appearance where cables and wires are terminated. Exercise care to avoid cutting through tapes which will remain on conductors. Also avoid "ringing" copper conductors while skinning wire.

F. Trim cables and wires as short as practicable and arrange routing to facilitate inspection, testing and maintenance.

G. Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturers published torque tightening values for equipment connectors. Accomplish tightening by utilizing proper torquing tools, including torque screwdriver, beam-type torque wrench, and ratchet wrench with adjustable torque settings. Where manufacturer's torquing requirements are not available, tighten connectors and terminals to comply with torquing values contained in UL's 486A.

H. Provide liquid-tight flexible conduit for connection of motors and other electrical equipment where subject
to movement and vibration, and also where connections are subjected to one or more of the following conditions:

1. Exterior location.
2. Moist or humid atmosphere where condensate can be expected to accumulate.
3. Corrosive atmosphere.
4. Water spray.
5. Dripping oil, grease, or water.

J. Coordinate installation of electrical connections for equipment with equipment installation.

K. Perform all work in conformance with job requirements, other applicable sections of these specifications, governing codes and ordinances, and manufacturer's instructions.

3.3 EQUIPMENT REQUIREMENTS

A. The electrical requirements for equipment specified or indicated on the drawings are based on information available at the time of design. If equipment furnished for installation has electrical requirements other than indicated on the electrical drawings, the Electrical Subcontractor shall make any required changes to wire and conduit size, controls, overcurrent protection and installation as required to accommodate the equipment supplied, at no additional charge to the Owner. The complete responsibility and costs for such adjustments shall be assigned to the respective section of this specification under which the equipment is furnished.

B. Electrical equipment shall be identified by the attachment of engraved nameplates as specified.

C. Complete all identification cards for switches, starters and other devices in all distribution panelboards and similar pieces of equipment, on a typewriter in a neat manner and insert the card in the card holder behind a piece of clear plastic. Where the card size is insufficient for the proper identification of all circuits, the index shall be made on a large sheet of paper of proper proportion, and then photo-reduced to fit the card holder.

3.4 FIELD QUALITY CONTROL

A. Upon completion of installation of electrical connections, and after circuitry has been energized with rated power source, test connections to demonstrate capability and compliance with requirements. Ensure that direction of rotation of each motor fulfills requirement. Correct malfunctioning units at site, then retest to demonstrate compliance.

END OF SECTION

SECTION 26 0519 - WIRES AND CABLES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

B. This section is a Division 26 Basic Materials and Methods section, and is part of each Division 26 section making reference to wires and cables specified herein.

1.2 SUMMARY

A. This Section includes wires, cables, and connectors for power, signal, control and related systems rated 600 volts and less.

B. The applications for cable, wire and connectors required on the project are as follows:

1. Power distribution circuitry
2. Equipment connections and controls circuitry
3. Solar System

1.3 SUBMITTALS

A. Provide product literature submittal on wiring.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with provisions of the following code

1. NFPA 70 "National Electrical Code."

B. Conform to applicable codes and regulations regarding toxicity of combustion products of insulating materials.

C. UL Compliance: Provide components, which are listed and labeled by UL under the following standards.

1. UL Std. 83 Thermoplastic-Insulated Wires and Cables.
2. UL Std. 486A Wire Connectors and Soldering Lugs for Use with Copper Conductors.

D. NEMA/ICEA Compliance: Provide components which comply with the following standards:

1. WC-5 Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

1. Wire and Cable:

   a. American Insulated Wire Corp.
   b. Carol Cable Co. Inc.
   c. Senator Wire and Cable Co.
   d. Southwire Company.

2. Connectors for Wires and Cable Conductors:

   a. AMP
   b. 3M Company
   c. O-Z/Gedney Co.
   d. Square D Company.

2.2 WIRING INSTALLED IN RACEWAYS

A. General: Provide wiring suitable for the temperature, conditions and location where installed. The following criteria are for single-insulated conductors installed in rigid conduit IMC, EMT, PVC, FMC, and liquid tight flexible conduit.

B. Conductors: Provide solid conductors for power circuits no. 10 AWG and smaller. Provide stranded conductors for sizes no. 8 AWG and larger.

C. Conductor Material: Copper, 98% conductivity, for all wires and cables.

D. Insulation: Provide XHHW-2 insulation for all service entrance wires and, feeders larger than #6. For all other sizes provide THHN/THWN insulation.

Color Coding for Phase Identification:

All wiring #8 AWG and smaller shall have coloring integral to insulation.

Color code on the project is as follows:

208Y/120 Volts	Phase
Black	A
Red	B
Blue	C
White	Neutral
Green	Ground

480Y/277 Volts	Phase
Brown	A
Yellow	B
Orange	C
Gray	Neutral
Green	Ground

E. For wire #6 AWG and larger that does not require color code integral to its insulation, colored electrical tape may be used for color coding, it shall cover not less than 6" of conductor within enclosure wherever possible. Color coding shall be with Scotch 35 tape by 3M Company or equal.

F. All wire on this project shall be new, unused, in good condition and shall be delivered in standard coils, packages and reels. Samples of all wire shall be submitted by the Contractor when so requested by the Engineer for the purpose of determining acceptability of the wire. Wire which has been rejected by the Engineer shall not be used again. Such rejected wire shall be removed from the Owner's premises forthwith. Decisions as to the quality of the wire furnished and the acceptance of such wire shall be made by the Engineer.

G. Size of conductors shall be not less than indicated. Branch circuit conductors shall be not smaller than No. 12 AWG. Conductors for branch circuits of 120 volts more than 75 feet long, from panel to utilization point shall be No. 10 AWG. The selection of wire sizes for both feeder and branch circuits are used so that voltage drop conforms to the following: Voltage drop in the case of 120/208 volt branch circuits shall not exceed 3.0% at maximum load and 70.0% power factor. Service and feeders shall not exceed 2.0% voltage drop at maximum load and 85% power factor, iron conduit only considered.

H. Remote control wires other than class 2 remote control and signal circuits, shall be no smaller than #14 conductors. Control wires shall be run in separate conduits.

I. When leaving a metal raceway or conduit in a cabinet, box, switch enclosure, control enclosure or any other like member, conductors shall be protected by means of insulated bushings or end fittings.

J. Conductors may be run in multiple sizes 1/0 to 500 MCM inclusive provided all multiple conductors are the same size, length and type of insulation. When run in multiple they shall be so arranged and terminated as to insure equal division of the total current between all conductors involved.

2.3 CONNECTORS FOR CONDUCTORS

A. Provide UL-listed factory fabricated, solderless metal connectors of sizes, ampacity ratings, materials, types and classes for applications and for services indicated. Use connectors with temperature ratings equal to or greater than those of the wires upon which used.

B. No splices or taps shall be made to any conductors except in outlet boxes, pull boxes, junction boxes, panelboard boxes, manholes, splice boxes or other accessible locations. All taps and splices shall be made with solderless connections and insulated in a manner providing an effective insulation equal to that of the adjoining wire insulation. Any splice or tap shall be made only on such conductors as are a component part of a single circuit.

PART 3 EXECUTION

3.1 WIRING METHOD

A. Use the following wiring methods:

1. Wire: Install insulated conductors in raceways.

B. General: Install electrical cables, wires and connectors in compliance with NEC.

C. Coordinate cable and wire installation work with electrical raceway and equipment installation work, as necessary for proper interface. Prior to pulling cables or conductors into raceways, inspect interiors of raceways; remove burrs, dirt and construction debris.

D. Pull conductors simultaneously together where more than one is being installed in same raceway. Use UL listed pulling compound or lubricant, when necessary. Care shall be exercised while installing wire in conduits so as not to injure conductor insulation. Bending radius of insulated wire or cable shall not exceed manufacturer's recommended values.

E. Use pulling means including, fish tape, cable, rope and basket weave wire/cable grips, which will not damage cables or raceways. Maximum pulling tension on any wire or cable shall not exceed manufacturer's recommended values.

F. For wired systems not requiring wire in conduit, conceal all cable in finished spaces.

G. Conductors shall not be pulled into conduits until after all plastering or concrete work is completed and all conduits in which moisture has collected have been swabbed out.

H. Keep conductor splices to a minimum. Splices shall not be permitted except in junction boxes, outlet boxes or as previously listed in this section. Splices must be accessible.

I. Install splices and taps connectors, which possess equivalent or better mechanical strength and insulation rating conductors being spliced.

J. Use splice and tap conductors which are compatible with the conductor material.

K. Provide adequate length of conductors within electrical enclosures and train the conductors to terminal points with no excess. Make terminations so there is no bare conductor at the terminal.

L. Tighten electrical connectors and terminals, including screws and bolts, in accordance with manufacturers' published torque tightening values. Where manufacturer's torqueing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL 486A and UL 486B.

3.02 FIELD QUALITY CONTROL

A. Contractor shall perform meggar tests on all service entrance conductors, all feeders and any other conductors 250 kcmil and larger. The contractor shall submit the test results to the Engineer within 48 hours of test, and at least 72 hours prior to permanent connection or energization. All test failures shall result in cable replacement.

B. Prior to energization, test wires for electrical continuity and for short circuits.

C. Prior to Contractor connecting of utility permanent power to the permanent electrical distribution system, all panels and wiring circuits shall be fully terminated and all panel covers completely installed. If the above cannot be complied with, and the Contractor deviates from this, then he

bears all the responsibility to provide lock-out/tag-outs and security of electrical rooms or rooms containing panels.

D. Subsequent to wire and cable hook-ups, energize circuits and demonstrate proper functioning. Correct malfunctioning units, and retest to demonstrate compliance.

END OF SECTION

SECTION 26 0526 - GROUNDING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

B. Division 26 Basic Materials and Methods sections apply to work of this section.

1.2 DESCRIPTION OF WORK

A. Extent of grounding is indicated by drawings.

B. Types of grounding in this section include the following:

1. Grounding electrodes
2. Grounding rods
3. Separately derived systems
4. Service equipment
5. Enclosures
6. Systems
7. Equipment

1.3 QUALITY ASSURANCE

A. NEC Compliance: Comply with NEC as applicable to electrical grounding.

B. ANSI/UL Compliance: Comply with requirements of ANSI/UL and UL standards pertaining to grounding. Provide products which have been UL listed and labeled

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's data on grounding devices and accessories.

PART 2 PRODUCTS

2.1 GROUNDING

A. Materials and Components:

1. General: Except as otherwise indicated, provide for each electrical grounding indicated,

with assembly of materials including, but not necessarily limited to, cables/wires, connectors, terminals (solderless lugs), grounding rods/electrodes and plate electrodes, bonding jumper braid, and other items and accessories needed for complete installation. Where more than one type meets indicated requirements, selection is installer's option. Where materials or components are not otherwise indicated, comply with NEC, NEMA and established industry standards for applications indicated.

2. General: Provide conduit, tube, duct and fittings complying with Division 26 Basic Materials and Methods section, "Raceways", in accordance with the following listing:
   a. Rigid steel conduit
   b. Electrical metallic tubing
   c. Liquid-tight flexible metal conduit
   d. Rigid metal conduit fittings
   e. EMT fittings, Type I
   f. Flexible metal conduit fittings
   g. Liquid-tight flexible metal conduit fittings

B. Electrical Bonding Jumpers:

1. Bonding Jumper Braid: Copper braided tape, constructed of 30 gauge bare copper wires and properly sized for indicated applications.

2. Flexible Jumper Strap: Flexible flat conductor, 480 strands of 30 gauge bare copper wire; 3/4" wide, 9-1/2" long; 48.250 CM. Protect braid with copper bolt hole ends with holes sized for 3/8 dia. bolts.

3. Electrical Grounding Conductors: Unless otherwise indicated, provide electrical grounding conductors for grounding connections matching power supply wiring materials and sized according to NEC. All non-metallic conduits and ducts shall have grounding conductors as noted on the drawings or required by NEC.

4. Bonding Plates, Connectors, Terminals and Clamps: Provide electrical bonding plates, connectors, terminals and clamps as recommended by bonding plate, connector, terminal and clamp manufacturer for indicated applications.

C. Ground Rods and Plate:

1. Ground Rods: Steel with copper welded exterior, 3/4" dia. x 10'.
   a. Electrical Grounding Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing, bonding straps, as recommended by accessories manufacturers for type services indicated.

PART 3 EXECUTION

3.1 INSTALLATION OF ELECTRICAL GROUNDING

A. General: Install electrical grounding systems as indicated on the drawings, in accordance with recognized industry practices to ensure grounding protection complies with requirements. Comply with requirements of NEC, NESC, and NEMA standards for installation of grounding systems and devices. All non-metallic conduits and ducts shall have grounding conductors as noted on the drawings or required by NEC.

B. Coordinate with other electrical work as necessary to interface installation of electrical grounding

system and ground-fault protection devices with other work.

C. Install clamp-on connectors only on thoroughly cleaned metal contact surfaces, to ensure electrical conductivity and circuit integrity.

3.2 EQUIPMENT GROUNDING SYSTEM

A. General: Provide a complete equipment grounding system in accordance with the minimum code requirements and as further indicated on the drawings or specified. The equipment ground (green conductor) consists of metallic connections to ground non-current carrying metal parts of the wiring system or apparatus connected to the system.

B. Common Ground Point: Establish one common ground point for interconnection of the equipment grounding system and the service grounding electrode Conductor.

C. Ground Bar: Provide an uninsulated equipment ground bar, separate from any insulated neutral bar, in switchboard, panelboards, transformers, starters, disconnect switches, cabinets, etc. for grounding the enclosure and for connecting other equipment ground conductors. The ground bar shall be an integrally mounted and braced bus bar in switchboard or a separately mounted bar adequately braced or bolted to the enclosure of other types of equipment. Provide solderless pressure connectors for all conductor terminations. The number and size of pressure connectors on equipment grounding bars as required for the termination of equipment grounding conductors. In addition to the active circuits, provide pressure connectors for all three-phase spares and spaces.

D. Conduits: Where metallic conduits terminate without mechanical connection, provide ground bushing connected with a bare copper conductor to the ground bar in the electrical equipment. Install grounding conductor in each nonmetallic conduit or duct and in all flexible conduit that does not have a built-in ground conductor. Those raceways used for telephone, sound, or low-voltage signals do not require a grounding conductor. All conduits terminating at communication backboards shall be provided with grounding bushings.

E. Feeders and Branch Circuits: Provide a separate green insulated equipment grounding conductor for each single or three-phase feeder and each branch circuit with a three-phase protective device. Provide a separate green insulated equipment ground conductor for single phase branch circuits where indicated on the drawings. Where there are parallel feeders installed in more than one raceway each raceway shall have a green insulated equipment ground conductor.

F. Devices: Where a branch circuit ground conductor is not available, install a minimum No. 12 green insulated equipment bonding conductor. Bond conductor from a grounding terminal in the respective outlet or junction box to the green ground terminal of all receptacles. This will be required regardless of receptacle being approved for application without separate bond conductor.

G. Motors: Install a separate green insulated equipment grounding conductor from each separate starter through the conduit and flexible conduit to the ground terminal in the connection box mounted on the motor.

H. SEPARATELY DERIVED SYSTEMS: Transformers creating separately derived distribution systems shall utilize the equipment ground bars in the transformer enclosure for both secondary equipment ground and secondary neutral ground. A separate grounding conductor shall be extended to a made electrode consisting of not less than twenty feet of #4 minimum bare copper conductor encased along the bottom of the nearest exterior concrete foundation footing in direct

contact with the earth. Bond this footing ground to the other elements of the grounding electrode system with a conductor equal to the service ground conductor.

3.3 SERVICE GROUNDING SYSTEM

A. General: The service grounding system is provided for the AC service neutral ground and shall be installed in complete accord with NEC and local electrical code requirements. Current return conductors shall not be used for equipment grounding. Neutral bars are not to be bonded to the enclosures of panelboards, etc. Except for separately derived systems, the neutral conductors shall be grounded only in the main service equipment.

B. Common Ground Point: Establish one common ground point in the main service equipment by interconnecting the insulated neutral bus and service grounding electrode conductor.

C. Neutral Bars: Provide an insulated neutral bar, separate from the uninsulated equipment ground bar, in all panelboards, except for separately derived systems.

3.4 GROUNDING ELECTRODES

A. Two service ground electrodes shall be utilized. One shall be the main cold water metallic water piping system and the other shall be a made electrode consisting of not less than twenty feet of #3/0 minimum bare copper conductor encased along the bottom of a concrete foundation footing which is in direct contact with the earth (NEC 250-81c). Bond service ground conductor to the made electrode in footing and building steel with Cadweld connections or approved equal. Make the connections to the cold-water pipe inside the building at the point of water service entrance.

3.5 GROUNDING CONDUCTORS

A. The grounding conductors for both service ground electrodes shall be insulated or bare copper, sized in accordance with NEC 250-94(a) including the conductor for the made electrode. The conductors shall be continuous without joint or splice and shall be installed in conduit with the conduit bonded to the conductor at each end. Equipment grounding conductors shall be green insulated conductors with insulation equivalent to the insulation on the associated phase conductor, but not less than Type THW. The equipment grounding conductor or straps shall be sized in accordance with NEC. Where one feeder serves a series of panelboards or transformers, the equipment grounding conductor shall be continuous without splices. All connections shall be available for inspection and maintenance.

1. Connections: Clean surfaces thoroughly to bare metal before applying ground lugs or clamps. Where galvanizing is removed from metal it shall be painted or touched up with "Galvanox", or equal. All grounding system connections which are made in inaccessible locations, i.e. underground, within concrete slabs, shall be made with Cadweld connections or approved equal.

3.6 TESTING

A. Upon completion of installation of electrical grounding system, test ground resistance with ground resistance tester (meggar) at the service ground bar and submit a written report to the

Engineer for review prior to scheduling the final electrical punch list. Indicate the measured resistance and the soil conditions at the time the measurements were made. The service shall not be energized if the test shows more than 25 ohms. The contractor shall furnish all instruments and personnel required for the tests. Where tests show resistance to ground is over 25 ohms, take appropriate action to reduce resistance to 25 ohms or less by driving additional ground rods and/or by chemically treating soil encircling ground rod; then retest to demonstrate compliance.

END OF SECTION

SECTION 26 0530 - ELECTRICAL BOXES AND FITTINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

1.2 DESCRIPTION OF WORK

A. Extent of electrical box and associated fitting work is indicated by drawings.

B. Types of electrical boxes and fittings specified in this section include the following:

1. Outlet boxes
2. Junction boxes
3. Pull boxes
4. Bushings
5. Locknuts
6. Knockout closures

1.3 QUALITY ASSURANCE

A. NFPA Compliance: Comply with NEC as applicable to construction and installation of electrical boxes and fittings.

B. UL Compliance: Comply with applicable requirements of UL 50, UL 514-Series, and UL 886 pertaining to electrical boxes and fittings. Provide electrical boxes and fittings which are UL-listed and labeled.

C. NEMA Compliance: Comply with applicable requirements of NEMA Stds/ Pub No.'s OS1, OS2 and Pub 250 pertaining to outlet and device boxes, covers and box supports.

D. Federal Specification Compliance: Comply with applicable requirements of FS W-C-586, "Electrical Cast Metal Conduit Outlet Boxes, Bodies and Entrance Caps".

1.4 SUBMITTALS

A. Product Data: Submit manufacturer’s data on electrical boxes and fittings.

PART 2 - PRODUCTS

2.1 FABRICATED MATERIALS - STEEL

A. Outlet Boxes: Provide galvanized coated flat rolled sheet-steel outlet wiring boxes, of shapes, cubic inch capacities, and sizes, including box depths as indicated, suitable for installation at respective locations. Construct outlet boxes with mounting holes, and with cable and conduit-size knockout openings in bottom and sides. Provide boxes with thread screw holes, with corrosion-resistant cover and grounding screws for fastening surface and device type box covers, and for equipment type grounding.

B. Outlet Box Accessories: Provide outlet box accessories as required for each installation, including box support mounting ears and brackets, wallboard hangers, box extension rings, fixture studs, cable clamps and metal straps for supporting outlet boxes, which are compatible with outlet boxes being used to fulfill installation requirements of individual wiring situations.

C. Device Boxes: Provide galvanized coated flat rolled sheet-steel non-gangable device boxes, of shapes, cubic inch capacities, and sizes, including box depths as indicated, suitable for installation at respective locations. Construct device boxes for flush mounting with mounting holes, and with cable-size knockout openings in bottom and ends, and with threaded screw holes in end plates for fastening devices. Provide cable clamps and corrosion-resistant screws for fastening cable clamps, and for equipment type grounding.

D. Device Box Accessories: Provide device box accessories as required for each installation, including mounting brackets, device box extensions, switch box supports, plaster ears, and plaster board expandable grip fasteners, which are compatible with device boxes being utilized to fulfill installation requirements for individual wiring situations.

E. Boxes for use with raceway systems shall not be less than 2-1/8 inches deep except where shallower boxes required by structural conditions are approved. Boxes for other than lighting fixture and power shall be not less than 4 inches square.

F. Outlet boxes for various uses shall be Appleton boxes, or equal in quality and function of the following order; Appleton nos. listed first, universal numbers listed in parenthesis:

1. In standard partitions and suspended ceilings for lighting fixture installations where 3/4" conduits are employed, #40D3/4 (#54l7l 3/4) boxes shall be used; for 1/2" conduits #40D1/2 (#54171 1/2) shall be used.

2. In standard partitions and suspended ceiling areas where conduits of 1" size or greater are employed, #4SD1 (#52171-1) boxes having a depth of 2-1/8" shall be used.

3. Wall switch and convenience outlets in standard partitions and where 3/4" conduits are employed, #4SD 3/4 (#52171-3/4) boxes shall be used; for 1/2" conduits #4SD 1/2 (#52171-1/2) boxes shall be used.

4. In thin partitions measuring 3-1/2" or less and where 3/4" conduits are employed, #4S 3/4 (#52151 3/4) boxes shall be used; for 1/2" conduits #4S 1/2 (52151 1/2) boxes shall be used.

5. Voices, Data, Video outlets shall be as detailed on the plans and described in Division 26 specifications.

G. The following requirements shall apply to exposed as well as concealed conduit systems. When "gang" arrangements of outlets are employed, 2-3/4" deep "gang" boxes shall be used. These "gang" boxes shall have dimensions which are not smaller than those shown in the following table.

Number in Gang	Size
3	4 - 1/2" X 8- 5/8"
4	4 - 1/2" X 10- 1/2"
5	4 - 1/2" X 12- 1/4"
6	4 - 1/2" X 14"
7	4 - 1/2" X 16"
8	4 - 1/2" X 17- 3/4"

Where "gang" boxes are located in woodwork or in wooden partitions, the depth of the boxes (shall) may be reduced to 1 - 3/4"

H. Raintight Outlet Boxes: Provide corrosion-resistant cast metal raintight outlet wiring boxes, of types, shapes and sizes, including depth of boxes, with threaded conduit holes for fastening electrical conduit,

I. Junction and Pull Boxes: Provide galvanized code gauge sheet steel junction and pull boxes with screw on covers; of types, shapes and sizes to suit each respective location and installation; with welded seams and equipped with stainless steel nuts, bolts, screws and washers.

J. Terminal Cabinets: Junction boxes called for to be used as terminal cabinets for special systems (Fire Alarm) shall be of NEMA Type I, surface mounting minimum 16 gauge steel thickness as manufactured by Circle A-W Products or approved equal. Boxes shall be provided with a ¾" plywood thick backboard sized for full area of box wall mounting surface. Furnish with hinged cover. Furnish terminal blocks where required or noted on the drawings for all wire splicing or terminations, Kulka 672 or equal in quality and construction. Number of terminal blocks shall be as required for all wires in terminal cabinets plus 50% spare.

K. Conduit Bodies: Provide galvanized cast-metal conduit bodies, of types, shapes and sizes, to suit respective locations and installation, constructed with threaded-conduit-entrance ends, removable covers, and corrosion-resistant screws.

L. Bushings, Knockout Closures and Locknuts: Provide corrosion resistant punched steel box knockout closures, conduit locknuts and malleable iron conduit bushings, offset connectors, of types and sizes to suit respective installation requirements and applications.

PART 3 - EXECUTION

3.1 PERMITTED USES

A. Steel boxes shall be used in all areas.

3.2 INSTALLATION OF BOXES AND FITTINGS

A. General: Install electrical boxes and fittings as indicated, in accordance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation", and in accordance with recognized industry practices to fulfill project requirements.

B. Coordinate installation of electrical boxes and fittings with wire/cable and raceway work.

C. Provide weatherproof outlets for interior and exterior locations exposed to weather or moisture.

D. Provide knockout closures to cap all unused knockout holes where blanks have been removed.

E. Install electrical boxes and conduit bodies in those locations, which ensure ready accessibility to enclosed electrical wiring.

F. Avoid installing boxes back-to-back in walls. Provide not less than 6" (150 mm) horizontal separation. If boxes are installed with less than 6” separation in fire rated walls then the contractor shall provide fire stop material around the boxes.

G. Avoid installing aluminum products in concrete.

H. Position recessed outlet boxes accurately to allow for surface finish thickness.

I. Boxes shall be square and flush with finished surfaces and suitably anchored in place. The front edges of the boxes or plaster rings shall be flush with the finished wall or ceiling line or if installed in walls and ceilings of combustible construction, not more than 1/4 inch back of same. Mount boxes with the long axis of devices vertical, unless specifically noted otherwise.

J. Boxes in plastered walls and ceilings shall be provided with plaster rings. A multiple of box extensions and/or covers will not be permitted. Rough-in installations which require box extensions shall be abandoned and the rough-in work redone. Install in a rigid and satisfactory manner with suitable metal bar hangers, box cleats, adjustable box hangers, etc. Use wood screws on wood, expansion shields on masonry and machine screws on steel work.

K. Avoid using round boxes where conduit must enter box through side of box, which would result in difficult and insecure connections when fastened with locknut or bushing on rounded surface.

L. Fasten boxes firmly and rigidly to substrates, or structural surfaces to which attached, or solidly embed electrical boxes in concrete or masonry. Wire shall not be used to anchor boxes to structure.

M. Provide electrical connections for installed boxes. Where several feeders pass through a common

pullbox, the feeders shall be tagged to indicate clearly the electrical characteristics, circuit number, and panel designation.

N. Splices in switch boxes shall be kept to a minimum.

O. On all ceiling outlets involving fixture hanging from boxes, 3/8" no-bolt fixture studs shall be used for light load and 1/2" no-bolt fixture studs shall be used for heavy loads.

P. Where an atmosphere laden with moisture exists, Type FD Series Unilet Boxes shall be used with standard devices. The covers employed shall be adapted for the particular application involved. In such cases, brass screws shall be used and due provision shall be made in all cases, for the escape of any condensate which might accumulate.

Q. Mounting Heights: The mounting height of a wall mounted outlet box shall mean the height from the finished floor to the horizontal center line of the cover plate. On exposed tile, block or brick construction, mount outlet boxes at the nearest bed joint to the mounting height indicated. Any change in height made by the Contractor shall not place the box out of the range of acceptable height to comply with ADA. Verify with the Engineer. Once mounting height is adjusted because of mortar bed joint, all similar wiring devices within the room or within view shall be adjusted accordingly.

R. Wall Mounted Switch, Receptacle and Signal Outlets: On columns, pilasters, etc., mount so the centers of the columns are clear for future installation of partitions. Install outlet boxes near the doors on the lock sides as shown on Engineerural drawings, unless locations are shown otherwise because of sidelites, and approved by the Engineer.

S. Pull Boxes: Provide additional pull boxes wherever necessary to meet requirements for maximum length of conduit runs and maximum number of bends. Conduit runs with not more than two ninety degree bends shall not exceed 200 feet.

T. Grounding: Upon completion of installation, properly ground electrical boxes and demonstrate compliance with requirements.

U. Identification: All junction and pull boxes above the ceiling shall be labeled as to the circuits contained. Blank steel covers on 4 square boxes may be labeled with permanent black marker, hand written with panel name and circuit numbers unless noted otherwise on the plans. Larger boxes may have handwritten labeling if neatly performed.

V. Grounding: Upon completion of installation work, properly ground electrical boxes and demonstrate compliance with requirements.

W. Identification: Identify junction and pull boxes installed for fire alarm wiring by painting red. Paint box and cover.

END OF SECTION
26 0530

SECTION 26 0535 - RACEWAYS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

B. This section is a Division 26 Basic Materials and Methods section, and is part of each Division 26 section making reference to electrical raceways specified herein.

1.2 SUMMARY

A. This Section includes raceways for electrical wiring 600v and below, control wiring, and Fire Alarm System Wiring. Types of raceways in this section include the following:

1. Type FMC conduit NEC Article 348.

2. Type EMT conduit NEC Article 358.

3. Liquidtight flexible conduit NEC Article 350.

4. Rigid metal conduit NEC Article 344.

5. Rigid nonmetallic conduit NEC Article 352.

6. Intermediate Metal Conduit NEC Article 342.

B. Wiring methods shall be as described by the Division 26 specifications and permitted by the State of New Mexico Electrical Code. Selection of wiring method is at the contractor's option. Use of Type "NM" cable, NEC Article 334 is prohibited for this project.

1.3 SUBMITTALS

A. General: Submit the following in accordance with sections 1 through 7 as appropriate, Supplementary Conditions.

B. Product Data for the following products:

1. Metal conduits and fittings.

2. Flexible conduits and fittings.

3. PVC conduits and fittings.

1.4 QUALITY ASSURANCE

A. Electrical Component Standard: Components and installation shall comply with NFPA 70 "National Electrical Code."

B. NEMA Compliance: Comply with applicable portions of NEMA standards pertaining to raceways.

C. UL Compliance and Labeling: Comply with applicable requirements of UL standards pertaining to electrical raceway systems. Provide raceway products and components listed and labeled by UL, ETL, or CSA.

1.5 SEQUENCING AND SCHEDULING

A. Coordinate with other Work, including metal framing, wood framing and concrete deck installation, as necessary to interface installation of electrical raceways and components with other Work.

PART 2 - PRODUCTS

2.1 MATERIALS AND COMPONENTS

A. General: For each electrical raceway system indicated, provide assembly of conduit, tubing or duct, and fittings including, but not necessarily limited to, connectors, couplings, offsets, elbows, straps, bushings, expansion joints, hangers and other components and accessories as needed for a complete system. Minimum size conduit shall be 3/4".

B. Each length of rigid/IMC conduit shall have both ends threaded. The extremities shall, moreover, be reamed to remove all burrs and sharp edges. Each length of conduit shall be marked with the name and trademark of the manufacturer and the stamp of approval of the Underwriters Laboratories, Inc.

C. Where shown on the plans or specifically called for in the specifications, electrical conductors shall be installed in hot-dipped galvanized rigid steel conduit or IMC. Exposed conduit in damp OUTDOOR locations shall be rigid steel conduit or IMC. If EMT conduit is used outdoors as part of the new construction, it shall be REMOVED wherever found and replaced with rigid steel conduit. Each length of conduit shall be provided with one coupling attached and the threads of the end of the conduits having no coupling shall be protected by use of suitable thread protectors. All couplings and other fittings such as bends or elbows shall be protected against corrosion in the same manner in which the conduit itself is protected. All bends for conduit of 1-1/4" or larger shall either be factory manufactured elbows or be made by the use of a bending machine meeting the approval of Engineer. Under no circumstances shall any bend be installed if the conduit from which it is fabricated is injured in any manner in the course of, or by, the bending process. The radius of the curve of the inner edge of any field bend shall not be less than the recommendation of the National Electrical Code. Under no circumstances shall the internal cross sectional area of any conduit be appreciably reduced by any bending process.

D. Rigid steel conduit, IMC and EMT fittings shall be either steel or malleable iron only.

E. EMT connectors and couplings shall be of the steel set screw or threaded compression type, having steel gland nuts. Connectors shall have insulated throats.

F. 3/4" trade size conduits may be installed in concrete slabs, as near the center of the slab as possible. Material shall be IMC, rigid, or PVC.

G. Conduits installed in direct contact with the earth, except where PVC is used, shall be rigid galvanized steel, field spirally wrapped (half-lapped) with one layer of 1" wide 3M Scotchrap #50 plastic tape with a 50 percent overlap, including all joints or couplings, or shall be coated with a bonded 20 mil minimum thickness PVC, permanently fused at the factory, Pittsburgh Standard Co., "Plasti-Bond", or equal. Contractor shall patch with Scotchrap tape all holes or abrasions to conduit tape wrapping which expose the metal conduit surface. All buried wrapped or coated conduit shall be checked by Owner's duly authorized representative prior to covering up with fill. Branch circuit and feeder conduit runs when direct buried may be PVC schedule 40. The Contractor has the option of PVC conduit or rigid metal tape wrapped conduit. EMT conduit is not acceptable for burial applications. If PVC conduit is used, transition to rigid metal tape wrapped conduit shall be made before beginning sweep for conduit stub-up. Metal conduit must be wrapped throughout buried portion, including risers.

2.2 METAL CONDUIT AND TUBING

A. General: Provide metal conduit, tubing and fittings of types, grades, sizes and weights (wall thicknesses) for each service indicated. Where types and grades are not indicated, provide proper selection determined by Contractor to fulfill wiring requirements and comply with applicable portions of NEC for raceways.

B. Sealing Fittings: Threaded, zinc or cadmium plated, cast or malleable iron type for steel conduits.

C. Rigid Aluminum Conduit: Not acceptable on this project.

D. Rigid Steel Conduit: ANSI C80.1

E. Intermediate Steel Conduit: UL 1242. Intermediate metal conduit (IMC) may be used in lieu of rigid conduit, but only where permitted by 2005 NEC, and with manufacturer's recommended fittings. Threading and bending of IMC shall be with approved equipment for the purpose and as recommended by the manufacturer of the raceway. Threadless fittings shall not be permitted for rigid or IMC.

F. Electrical Metallic Tubing and Fittings: ANSI C80.3. Steel tubing, in lieu of rigid or IMC conduit, may be used in sizes up to and including 4 inches in all interior work, except that it shall not be used in concrete, underground, in any damp or outdoor locations, or in any locations where there is a likelihood of mechanical injury.

G. Flexible Metal Conduit: UL 1, aluminum, not acceptable.

H. Flexible Metal Conduit: UL 1, with a separate grounding bond wire installed in the flex in addition to other wires.

I. Flexible Metal Conduit Fittings: Either steel or malleable iron only, with insulated throats.

J. Liquid-Tight Flexible Metal Conduit and Fittings: UL 360. Provide liquid-tight flexible metal conduit; constructed of single strip, flexible, continuous, interlocked, and double-wrapped steel, galvanized inside and outside; coated with liquid-tight jacket of flexible polyvinyl chloride (PVC) and a continuous copper bonding conductor wound spirally between the convolutions. To be UL labeled Seal-tite type UA or Liquid-tite type LA.

K. Liquid tight flexible conduit fittings shall be provided with threaded grounding cone, a steel, nylon or equal plastic compression ring and a gland for tightening. Either steel or malleable iron only with insulated throats and male thread and locknut or male bushing with or without "O" ring seat.

2.3 NONMETALLIC CONDUIT AND DUCTS

A. General: Provide nonmetallic conduit, ducts and fittings of types, sizes and weights (wall thicknesses) for each service indicated. Where types and grades are not indicated, provide proper section determined by Contractor to fulfill wiring requirements, and comply with applicable portions of NEC for raceways.

B. Rigid Nonmetallic Conduit (PVC): NEMA TC 2 and UL 651, Schedule 40 or 80 PVC.

C. PVC Conduit and Tubing Fittings: NEMA TC 3; match to conduit or conduit/tubing type and material.

D. Conduit, Tubing and Duct Accessories: Types, sizes, and materials complying with manufacturer's published product information. Mate and match accessories with racewa

2.4 CONDUIT BODIES

A. General: Types, shapes, and sizes as required to suit individual applications and NEC requirements. Provide matching gasketed covers secured with corrosion-resistant screws.

B. Metallic Conduit and Tubing: Use metallic conduit bodies. Use bodies with threaded hubs for threaded raceways.

C. Conduit Bodies 1 Inch and Smaller: Use bodies with compression-type EMT connectors.

PART 3 - EXECUTION

3.1 WIRING METHOD

A. Outdoors: Use the following wiring methods:

1. Exposed: IMC or rigid metal conduit.

2. Underground: IMC, rigid metal conduit, or PVC Sch 40.

3. Connection to Vibrating Equipment: Including transformers and hydraulic, pneumatic, or electric solenoid or motor-driven equipment: liquidtight flexible metal conduit.

4. Indoors or Outdoors: Connection to vibrating equipment and hydraulic, pneumatic, or electric solenoid or motor-driven equipment in moist or humid location or corrosive atmosphere, or where subject to water spray or dripping oil, grease, or water: liquid tight flexible metal conduit.

3.2 INSTALLATION

A. General: Install electrical raceways for all wiring circuits in accordance with manufacturer's written instructions, applicable requirements of NEC, and as follows:

B. Conceal raceways, unless indicated otherwise, within finished walls, ceilings, and floors. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot water pipes. Install raceways level and square and at proper elevations. Run all conduits in a manner satisfactory to the Engineer. On exposed systems, support shall be provided at intervals of 6 feet or closer depending on wiring method. On concealed conduits, support shall be provided at intervals of no more than 8 feet or closer depending on wiring method. No feeder conduit run shall be longer than 80 feet between junction boxes, cabinets or circuit interrupting devices unless there are no direction changes, and only a straight-in-line pull of wire is involved. In such straight-in-line runs between junction boxes, cabinets or circuit interrupting devices, a run not to exceed 120 feet in length may be made.

C. Elevation of Raceway: Install horizontal raceway runs above water and steam piping to the fullest extent possible.

D. Complete installation of electrical raceways before starting installation of conductors within raceways. All ends of the conduit shall be properly reamed to remove rough edges and whenever a conduit enters a box or other fitting, it shall be securely fastened by the use of a locknut inside and outside of the box or fitting. An approved bushing shall be installed on the ends of all conduit in such a manner as to protect the wire from abrasion. Completed raceways shall be inspected; inspect interiors of raceways, remove burrs, moisture, and dirt and construction debris.

E. Support raceways rigidly by means of straps or hangers best suited for the work. Conduit shall <u>not</u> be supported from ceiling support system. Multiple runs of conduits shall be racked on trapeze hangers. <u>All</u> support materials shall be rustproof. Perforated tape or wire shall not be used.

3.3 SUPPORTS SHALL COMPLY WITH NEW MEXICO ELECTRICAL CODE.

A. Prevent foreign matter from entering raceways by using temporary closure protection. Seal raceways after installation to prevent accumulation of water, dirt and other foreign materials. Conduit in which such accumulation occurs shall be cleaned to the satisfaction of the Engineer or replaced.

B. Conduit crossing expansion joints shall be provided with suitable expansion fitting.

C. Protect stub-ups from damage where conduits rise from floor slabs. Arrange so curved portion of bends is not visible above the finished slab. Conduit crushed or otherwise deformed shall not be installed and shall be removed from the job site without delay.

D. Make bends and offsets so the inside diameter is not effectively reduced. Unless otherwise indicated,keep the legs of a bend in the same plane and the straight legs of offsets parallel.

E. Use raceway fittings that are of types compatible with the associated raceway and suitable for the use and location. For intermediate steel conduit, use threaded rigid steel conduit fittings except as otherwise indicated.

F. Run concealed raceways with a minimum of bends in the shortest practical distance considering the type of building construction and obstructions, except as otherwise indicated.

G. All non-metallic conduit or duct runs shall have a ground bonding conductor, size as noted or required by NEC. The bond or equipment served shall be bonded to grounding conductor to provide a good ground return path to service panel.

H. Install exposed raceways parallel and perpendicular to nearby surfaces or structural members and follow the surface contours as much as practical. Paint conduit that will be exposed to the public. Paint shall match surface color.

I. Run exposed, parallel, or banked raceways together. Make bends in parallel or banked runs from the same center line so that the bends are parallel. Factory elbows may be used in banked runs only where they can be installed parallel. This requires that there be a change in the plane of the run such as from wall to ceiling and that the raceways be of the same size. In other cases provided field bends for parallel raceways.

J. Join raceways with fittings designed and approved for the purpose and make joints tight. Where joints cannot be made tight, use bonding jumpers to provide electrical continuity of the raceway system. Make raceway terminations tight. Where terminations are subject to vibration, use bonding busings or wedges to assure electrical continuity. Where subject to vibration or dampness, use insulating bushings to protect conductors.

K. Tighten set screws of threadless fittings with suitable tool.

L. Terminations: Where raceways are terminated with locknuts and bushings, align the raceway to enter squarely and install the locknuts with dished part against the box. Where terminations cannot be made secure with one locknut, use two locknuts, one inside and one outside the box.

M. Where terminating in threaded hubs, screw the raceway or fitting tight into the hub so the end bears against the wire protection shoulder. Where chase nipples are used, align the raceway so the coupling is square to the box, and tighten the chase nipple so no threads are exposed.

N. Install pull wires in empty raceways over 4 feet long. Use no. 14 AWG zinc-coated steel or monofilament plastic line having not less than 200-lb tensile strength. Leave not less than 12 inches of slack at each end of the pull wire. Identify each terminus of pull wire with linen tags marked

with complete information as to service and location of the terminus of the line/wire.

O. Install raceway sealing fittings in accordance with the manufacturer's written instructions. Locate fittings at suitable, approved, accessible locations and fill them with UL-listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points and elsewhere as indicated:

1. Where conduits pass from warm locations to cold locations, such as the boundaries of refrigerated spaces and air-conditioned spaces.

2. Where required by the NEC.

P. Conduit Stub-up Through Roof: All conduits up through roof shall be properly sealed. Where applicable Contractor shall provide special adapters designed for the specific type of roofing system. See the drawings for special details and instructions for this specific purpose.

Q. Flexible Connections: Use short length (maximum of 6 ft.) of flexible conduit for recessed and semi recessed lighting fixtures, where EMT and FMC is used, for equipment subject to vibration, noise transmission, or movement; and for all motors. Use liquidtight flexible metal conduit in wet locations. Install separate ground conductor across flexible connections.

R. Conduits above acoustical "lay-in" ceilings shall be anchored to the building structure and not on the ceiling or ceiling support wires. Wire shall not be used to anchor boxes to structure. Junction boxes shall be installed on the structural members and flexible conduit, extended down to light fixtures, length not to exceed 6 ft.

S. Do not install aluminum conduit.

T. PVC externally coated rigid steel conduit: Use only fittings approved for use with that material. Patch all nicks and scrapes in PVC coating after installing conduit.

U. Lighting fixtures shall <u>not</u> be used for raceways for circuits other than parallel wiring of fixtures.

V. Fire Barriers: Contractor shall be responsible for sealing all conduit penetrations through fire rated walls and ceilings. The seal shall be acceptable to Engineer and maintain the integrity of the wall or ceiling fire rating. 3M brand fire barrier caulk #CP 25 and putty #303 are considered acceptable for this purpose. Refer to Engineerural drawings for these locations.

3.4 ADJUSTING AND CLEANING

A. Upon completion of installation of raceways, inspect interiors of raceways; clear all blockages and remove burrs, dirt, and construction debris.

END OF SECTION

SECTION 26 2716 - CABINETS AND ENCLOSURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Hinged cover enclosures.

B. Cabinets.

C. Terminal blocks.

D. Accessories.

1.2 REFERENCES

A. NECA Standard of Installation (National Electrical Contractors Association).

B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

C. NEMA ICS 4 - Terminal Blocks for Industrial Control Equipment and Systems.

D. NFPA 70 - National Electrical Code.

1.3 SUBMITTALS FOR REVIEW – None Required.

1.4 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA 70.

B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2 PRODUCTS

2.1 MANUFACTURERSHoffman.

A. Circle A-W.

B. Wiegmann.

C. Substitutions: Permitted.

2.2 HINGED COVER ENCLOSURES

A. Construction: NEMA 250, Type 1 or 3R steel enclosure.

B. Covers: Continuous hinge, held closed by flush latch operable by key.

C. Provide interior plywood panel for mounting terminal blocks and electrical components; finish with white enamel.

D. Enclosure Finish: Manufacturer's standard enamel.

2.3 CABINETS

A. Boxes: Galvanized steel.

B. Box Size: As indicated on drawings.

C. Backboard: Provide 3/4-inch thick plywood backboard for mounting terminal blocks. Paint matte white.

D. Fronts: Steel door with concealed hinge, and flush lock. Finish with gray baked enamel.

E. Knockouts: Pre-punched.

F. Provide metal barriers to form separate compartments wiring of different systems and voltages.

G. Provide accessory feet for free-standing equipment.

2.4 TERMINAL BLOCKS

A. Manufacturers:

1. Siemon.
2. Substitutions: Refer to Section 26 00 00.

B. Terminal Blocks: NEMA ICS 4.

C. Power Terminals: Unit construction type with closed back and tubular pressure screw connectors, rated 600 volts.

D. Signal and Control Terminals: Modular construction type, suitable for channel mounting, with tubular pressure screw connectors, rated 300 volts.

E. Provide ground bus terminal block, with each connector bonded to enclosure.

PART 3 EXECUTION

3.1 INSTALLATION

A. Quality Control: Manufacturer's instructions.

B. Install in accordance with NECA "Standard of Installation."

C. Install enclosures and boxes plumb. Anchor securely to wall and structural supports at each corner under the provisions of Section 16190.

D. Install cabinet fronts plumb.

3.2 CLEANING

A. Contract Closeout: Cleaning installed work.

B. Clean electrical parts to remove conductive and harmful materials.

C. Remove dirt and debris from enclosure.

D. Clean finishes and touch up damage.

END OF SECTION

SECTION 26 2726 - WIRING DEVICES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract Book apply to work of this section.

1.2 SUMMARY

A. This Section includes the following:

1. Receptacles
2. Ground Fault Circuit Interrupter Receptacles
3. Plugs
4. Plug Connections
5. Snap Switches
6. Wall Plates

1.3 SUBMITTALS

A. Product data for each type of product specified.

B. All wiring devices shall be by the same manufacturer unless authorized by Engineer. Unauthorized mixing of device brands is unacceptable.

C. Samples: The Contractor shall submit when requested a sample of the standard single pole switch and of the standard 15 and 20 Amp duplex convenience outlet as part of submittals. All wiring devices shall be by the same manufacturer unless authorized by Engineer. Mixing of device brands is unacceptable.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with provisions of the following codes.

1. NFPA 70 "National Electrical Code".

B. UL and NEMA Compliance: Provide wiring devices which are listed and labeled by UL and comply with applicable UL and NEMA standards.

1.5 SEQUENCE AND SCHEDULING

A. Schedule installation of finish plates after the surface upon which they are installed has received final finish.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufactures: Subject to compliance with requirements, provide products of one of the following or equal (for each type of wiring device):

1. General Electric Co.
2. Harvey Hubbell, Inc.
3. Pass and Seymour, Inc.
4. Bryant Electric Div.
5. Arrow Hart
6. Leviton
7. Lutron
8. Carlon

2.2 WIRING DEVICES

A. General: Provide wiring devices in types, characteristics, grades, colors, and electrical ratings for applications indicated which UL listed are and comply with NEMA WD1 and other applicable UL and NEMA standards. Where types and grades are not indicated, provide proper selection as determined by Contractor to fulfill wiring requirements, and comply with NEC and NEMA standards for wiring devices. Provide ivory color devices throughout. Provide stainless steel wall plates except as otherwise indicated. Verify color selection of devices with the Engineer.

B. Receptacles:

1. General: Configuration and requirements for all connector or outlet receptacles shall be in accordance with the NEMA Publication WD1 and UL 498. Fire-resistant, non-absorptive, hot-welded, phenolic composition or equal bodies and based with metal plaster ears (integral with the supporting members). Single or duplex as shown or noted on the drawings. Double grip contacts for each prong. Convenience outlets shall be installed with grounding pin connection for plugs at top (outlets installed vertically). All outlets not installed with ground post connection point on top shall be repositioned to meet this requirement.
2. Grounding type: All receptacles shall be grounding type with a green colored hexagonal equipment ground screw and shall be connected to green circuit ground conductor. Grounding terminals of all receptacles shall be internally connected to the receptacle mounting yoke.
3. Duplex convenience outlets, rated 20 amps, 125 volts, 2 pole, 3 wire, NEMA 5-20R, specification grade, back or side wiring, shall be Hubbell #5362-I, Pass & Seymour #5362-I, General Electric GE 5362-2 or Bryant 5362I.
4. Weather proof outlets on exterior walls (except on the roof) shall be GFCI receptacles installed in recessed “Taymac Masque” or equal covered recessed receptacle box.

Contractor shall install Taymac #72204 or equal with GFCI outlet. Taymac #72204 or equal consists of metal box, plastic extension ring and gasketed outlet bucket with cover. Verify color of cover prior to entering.

5. Weather proof outlets on roof for NEC 210.63 rule shall be GFCI outlet in FS cast metal box with Taymac #20510 or equal deep cover.

C. Ground Fault Interrupter Outlets:

A. The ground fault circuit interrupter (GFCI) receptacles, rated 15 amps, 125 volts, 2 pole, 3 wire, NEMA 5-15R, shall be UL listed (UL 498 and UL 943 Class A) and shall comply with ANSI C73.11. GFCI receptacles shall not have the "feed-through" feature to provide GFCI protection to receptacles connected downstream. The GFCI shall operate in the 4 - 6 milliamp range. The GFCI receptacles shall be Hubbell #GF-5262I, Pass & Seymour #1591-F-I, or Bryant #GFR52FTI. Receptacles shall be furnished with appropriate device wall coverplate.

D. Switches:

1. Unless otherwise specified, each snap switch (flush tumbler-toggle) shall be of the AC general use type fully rated 20 amperes minimum at 120/277 volts, conforming to minimum requirements of the latest revision of the Underwriters Laboratories, Inc., UL 20, NEMA Stds. Publ. No. WD1, and further requirements herein specified. Specification grade, heavy duty, single pole, 3-way, or 4-way of the maintained, momentary, or lock type as indicated on the drawings. Switches shall operate in any position and shall be fully enclosed cup type with entire body of phenolic, urea or melamine. Fiber, paper or similar insulating material shall not be used for body or cover. Silver or silver alloy contacts. AC 120/277 volt general use snap switches shall be capable of withstanding tests as outlined in NEMA publication WD1 and shall be as follows or an Engineer approved equal, unless otherwise noted.

2. Single pole switches, rated 20A, 120-277 volts, shall be Hubbell #1221-I, General Electric #5951-2G, Pass & Seymour #20AC1-I or Bryant 4901I.

3. Single pole switch with pilot light shall be spec. grade red lighted handle, rated 20 amps, 120V, Hubbell #1221-PL, General Electric #SP121-8G, Pass & Seymour #20AC1-RPL or Bryant #4901 PLR 120.

4. Three-way switches, rated 20A, 120-277 volts, shall be Hubbell #1223-I, Bryant #4903I, Pass & Seymour #20AC3-I or General Electric #5953-2G.

5. Four-way switches, rated 20A, 120-277 volts, shall be Hubbell #1224-I, Bryant 4904I, Pass & Seymour #20AC4-I or General Electric #5954-2G.

6. Weatherproof switches shall include the type of snap switch indicated on the drawings and specified herein, enclosed with a Crouse-Hinds #DS 181 cover and gasket mounted in an FS cast box. Substitutions must be Engineer approved. Flip top covers exposing switch handle to rain are <u>not</u> acceptable. Orientation of the cover must be vertical.

2.3 WIRING DEVICE ACCESSORIES

A. Wall plates: single and combination, of types, sizes, and with ganging and cutouts as indicated. Provide plates which mate and match with wiring devices to which attached. Provide metal screws for securing plates to devices with screw heads colored to match finish of plates. Conform

to requirements of "Electrical Identification." Provide plates possessing the following additional construction features:

B. Material and Finish Recessed Box: 0.04 inch thick, type 302 satin finished stainless steel, non-residential areas.

C. Material and Finish Surface Box: steel plate, galvanized, non-residential areas.

D. Engraving: Wall plates located in finished areas which would require identification shall be engraved stainless steel plates. All lettering shall be 1/8" minimum in height, nine characters per inch and filled with black paint. Identification wording/lettering shall be as noted on the drawings and shall be centered on cover plate.

E. Plates for special purpose outlets shall be of a design suitable for the particular application.

F. Wall plates covering flush boxes in CMU walls shall have oversize plates.

PART 3 EXECUTION

3.1 INSPECTION

A. Wiring device locations shown are approximate. The contractor shall adjust lateral locations shown up to 18" to accommodate final room layouts. The outlet locations shall be modified from those shown on the plans to accommodate changes in door swings or to clear other interferences that may arise from job construction details as well as modification within room spaces. The Contractor shall check these conditions throughout the entire job and shall notify the Engineer of discrepancies as they may occur before proceeding with the installation of the work to verify the modifications, if any.

3.2 INSTALLATION OF WIRING DEVICES AND ACCESSORIES

A. Install wiring devices and accessories as indicated, in accordance with manufacturers' written instructions, applicable requirements of NEC and in accordance with recognized industry practices to fulfill project requirements.

B. Coordinate with other Work, including painting, electrical boxes and wiring installations, as necessary to interface installation of wiring devices with other Work. Install wiring devices only in electrical boxes, which are clean; free from building materials, dirt and debris.

C. Install galvanized steel wall plates in unfinished spaces.

D. Install wiring devices after wiring work is completed. Switches shall be mounted 44" and convenience outlets 18" minimum, center of box above the finished floor level except as otherwise specified on the drawings. Align devices and plates horizontally and vertically.

E. Wall boxes shall be set in advance of the wall construction, shall be blocked in place and secured. All wall boxes shall be set flush with the finished building construction. The contractor shall vacuum clean all wiring device boxes.

F. Coordinate with other work, including painting, electrical box and wiring work, as necessary to interface installation of wiring devices with other work.

G. Delay installation of wall plates until after painting work is completed.

H. The Contractor shall be responsible for coordinating with other trades the actual installation of his

outlet boxes in walls. The wall building material (cinder block, brick, sheetrock or whatever) shall provide an even trim around outlet boxes not exceeding a 1/4" gap. The device cover plate should be able to cover up wall openings around outlet boxes. Wherever an outlet box installation fails to comply with the above listed condition, the Contractor shall arrange to have the problem corrected. Caulking, spackling material or any other sealer to be used shall be kept out of the outlet box area.

I. Wiring device yokes shall be installed in physical contact with the plaster ring. Spiral wound bare wire supports to act as spacers between plaster extension ring/box and device yokes are not acceptable. Where conditions occur, the plaster ring/box shall be replaced as required to provide the proper contact.

J. Device cover plates for each and every device shall be furnished and installed by this contractor.

K. Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for wiring devices. Where manufacturer's torqueing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL Standard 486A. Use properly scaled torque indicating hand tool.

3.3 PROTECTION OF WALL PLATES AND RECEPTACLES

A. Upon installation of wall plates and receptacles, advise the Contractor regarding proper and cautious use of convenience outlets. At time of Substantial Completion, replace those items which have been damaged, including those burned and scorched by faulty plugs.

3.4 GROUNDING

A. Provide electrically continuous, tight grounding connections for wiring devices, unless otherwise noted.

3.5 FIELD QUALITY CONTROL

A. Testing: Prior to energizing circuits, test wiring for electrical continuity, and for short-circuits. Ensure proper polarity of connections is maintained. Subsequent to energizing, test wiring devices and demonstrate compliance with requirements, operating each operable device at least six times.

B. Test ground fault interrupter operation with both local and remote fault simulations in accordance with manufacturer recommendations.

END OF SECTION

SECTION 26 3100 - PHOTOVOLTAIC COLLECTORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract Book apply to work of this section.

B. **BABA – THE FEDERAL BUILD AMERICA, BUY AMERICA ACT IS APPLICABLE TO THIS PROJECT. REFER TO OTHER SPECIFIC SECTION IS THE CONTRACT BOOK.**

C. **IF THE FEDERAL WAIVERS ARE STILL APPLICABLE FOR THE SOLAR PV MODULES, THE INVERTERS OR THE BESS (BATTERY STORAGE) AT THE TIME OF BID, AND THE CONTRACTOR WISHES TO APPLY APPLICABLE WAIVERS TO THE BID, THEN THE BIDDER SHALL SUBMIT THAT REQUEST FOR APPROVAL OR NON APPROVAL PRIOR TO BID. POST BID NO FEDERAL WAIVERS MAY BE USED UNLESS PREVIOUSLY APPROVED BY ADDENDUM.**

1.2 SUMMARY:

A. This section includes a solar photovoltaic (PV) system that is to be purchased by, permitted by, installed by, and commissioned by a PV Systems Integrator (SI). There shall be (2) Solar PV systems.

a) Solar System A, connected to EPE 150 KVA pad mount transformer T-A with a secondary voltage of 120/208V, 3 phase 4 wire. See the Series 11 drawings.

b) Solar System B, connected to EPE 300 KVA pad mount transformer T-B with a secondary voltage of 277/480V, 3 phase 4 wire. See the Series 11 drawings.

c) Each system shall have a N3R battery energy storage system (BESS).

B. The PV system shall be a ground mount grid interactive type. Both systems shall be designed, procured, installed, coordinated, and tested by a PV Systems Integrator (SI). The PV SI will provide design and engineering services necessary for installation of the system. The PV SI will provide all the equipment necessary for a complete and operational grid interactive PV system and install all required equipment.

a. The PV SI is responsible for providing and installing all ground supports, ground rack attachments, miscellaneous bolts, connection plates, cross members, horizontal supports, vertical supports, etc. as needed to properly mount PV array to the ground.
b. The optimal tilt angle shall be determined by the PV SI, but assumed to be 25 degrees.
c. The PV SI is responsible for all conduit and wiring to and on the structures for the respective PV systems.
d. The PV SI shall provide the PV modules, invertors, AC and DC breakers, BESS, microgrid controller solar transfer switch, etc.

C. The PV system for both Solar System A and Solar System B shall include, but not be limited to the following:

1. Basis of system design and performance.

2. Application and drawings to El Paso Electric for the proposed PV system as required by them and to their satisfaction; to include coordinating all documents between them and the South Central Regional Transit District.

3. PV modules may be either mono crystalline or poly crystalline.

4. PV source circuit protectors.

5. Grid interactive inverter, outdoor rated.

6. BESS, outdoor rated, installed on a concrete pad.

7. Electrical service conditions, A.C. and D.C. disconnects and interconnect to A.C. utility system to include meter can.

8. Cable, conduit, labeling and wiring.

9. Grounding.

10. PV output circuit.

11. Installation of breaker in indicated electrical panel.

1.3 SUBMITTALS:

A. Product Data: Include data on features, components, ratings, and performance for each component of the PV system. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for PV panels.

B. PV Shop Drawings: Indicate fabrication details, dimensions, area, weights, loads, required clearances, method of assembly, components, and location and size of each connection. Provide a complete electrical one-line diagram indicating all available short circuit currents, cable and wire sizes, voltages, and component ratings. Include rating capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

C. PV Power Warranty: The PV SI shall provide a power warranty (performance warranty) for the proposed system. The warranty shall be based on a 25-year linear power warranty. The power warranty shall be calculated based on actual site conditions and orientation and per industry standard practices. The power warranty shall demonstrate, in KWH, the annual power production of the system. The following milestones shall be met or exceeded; the system shall have a minimum power output of 98% in year 1, 95% for the first 5 years with no more than 0.4% degradation to year 25.

E. Qualification Data: For firms and persons specified in "Quality Assurance" Article.

F. Field Test and Observation Reports: Indicate and interpret test results and inspection records relative to compliance with performance requirements.

G. Field test report of tests specified in Part 3.

1.4 QUALITY ASSURANCE:

A. Manufacturer Qualifications for PV panels and invertors: Maintain a service center capable of emergency maintenance and repairs. The manufacturer of each component must have been in successful production of PV components for a minimum of five (5) years.

B. Testing Agency Qualifications: Testing agency as defined by OSHA in 29 CFR 1910.7 or a member company of the International Electrical Testing Association and that is acceptable to authorities having jurisdiction.

C. Coordinated System: The System Integrator (SI) shall be responsible for component compatibility and complete PV system operation. The SI shall correct any system compatibility or operational problems.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

E. Comply with NFPA 70.

F. Comply with applicable IEEE standards.

G. Comply with NFPA 70 - Article 690, 2017 Edition.

H. System Integrator Qualifications: Successful and productive track record of designing, procuring and installing solar PV canopy or carport systems for a minimum period of four (4) years including 10 grid interactive PV systems, minimum size of 10 kW.

1.5 DELIVERY, STORAGE, AND HANDLING:

A. Deliver PV system components to their final locations in protective wrappings, containers, and other protection that will exclude dirt and moisture and prevent damage from construction operations. Remove protection only after equipment is safe from such hazards.

B. As high value technology hardware and equipment, secure and store PV system components to minimize the risk of theft.

1.6 CLOSEOUT SUBMITTALS:

A. Operation and Maintenance Data: for PV modules and invertors to include in operation and maintenance manuals.

1.7 WARRANTY:

A. Solar PV System Manufacturer's Special Warranty: The SI and manufacturer agree to repair or replace components of the PV system that fail in materials or workmanship within specified warranty period. Manufacturers and SI materials and workmanship warranties include but are not limited to the faulty operation of the PV modules, invertors, monitoring and field wiring. The warranty period shall be five (5) years from the date of Substantial Completion. More stringent warranty requirements for the PV array modules and invertors are dictated in Part 2 products.

B. Manufacturer's Special Minimum Power Output Warranty: Manufacturer agrees to repair or replace components of PV modules that fail to exhibit the minimum power output within specified warranty period. Special warranty, applying to modules only, applies to materials only, on a prorated basis, for period specified.

1. Manufacturer's minimum power output warranties include, but are not limited to, the following warranty periods, from date of Substantial Completion:

a. Specified minimum power output to 98% percent first year, with linear degradation rate equal to or less than 0.4% for a period of 25 years.

PART 2 - PRODUCTS

2.1 SYSTEM INTEGRATORS:

A. System Integrators (SI) shall design/engineer, procure, install, and test the entire Solar PV System.

2.2 SOLAR PV SYSTEM BASIS OF DESIGN AND PERFORMANCE:

A. PV Array Installation Type

1. Ground mount

B. PV Array Performance

2. The design and selection of the total PV Array system for System A and System B shall have a PV KWH/YR production of at least xxx annual KWH/YR in year 5.

C. Array Installation Location and Sizing.

1. Refer to Series 11 drawings for the designated site area.

D. The PV SI and PV contractor shall provide all trenching, conduit and wire.

2.3 PHOTOVOLTAIC MODULES:

A. 25-year linear power warranty and 20-year product warranty.

B. Quality Warranty per IEC 61215, IEC 61730, UL 1703 – 10 years.

C. Minimum efficiency: Roof top modules $\geq$ 19.4%, Carport $\geq$ 19.1%.

1. The ground mount PV module shall have a minimum power class of 390 MPP at STC.

2. PID Free indication required (Potential Induced Degradation).

2.5 PV SOURCE CIRCUIT PROTECTORS:

A. UL listed, terminations for mono-polar PV source circuits as required. Silicon-oxide surge suppressor to protect all current carrying conductors, blocking diodes, integral fusing, and ground lugs. NEMA 3R housing.

2.6 GRID INTERACTIVE INVERTER:

A. Because of the distance from the various ground mount racks to the metering locations it is expected that the inverters will be located at the respective ground mount racks. The location is at the option of the PV SI.

B. Power output and voltage rating as indicated on electrical plans and table specifications. Fully compatible with PV source circuit voltages and power ratings.

C. IGBT semiconductor technology.

D. Complete protective functions for grid interactive systems including:

1. Wakeup voltage.

2. Wakeup time delay.

3. Shutdown power.

4. Shutdown time delay.

5. AC, over/under voltage, and time delays.

6. AC, over/under voltage, and time delays.

7. Ground overcurrent.

8. AC/DC overcurrent, DC overvoltage.

E. Regulatory approvals: IEEE 1547.1, IEEE 1547.3, UL 1741.

F. IEEE 519 and UL 1741 compliant.

G. IEEE 929 complaint and preventing islanding.

H. Standard LCD, four line, 20 characters, with user display and on/off toggle switch, operator interface with system diagnostic information, converter status.

I. Extended warranty of 20 years required.

J. Peak inverter efficiency $\geq$ 97%

K. < 50 dBA at 10 feet (3 meters)

L. Operating ambient temperatures minus 4 to plus 122-degree F; relative humidity zero to 95 percent, noncondensing. No deration up to 6,000 ft. above sea level.

M. The new PV systems shall have web-based monitoring. The PV SI shall set up the monitoring for the designated SCRTD designee. The data drop cable will be provided by others.

2.7 AC, DC DISCONNECTS AND PANEL BREAKER:

A. Size, rating, number of poles in conformance with PV system requirements located in accordance with NEC-690.

B. Disconnects to be properly labeled with warning signs per NEC-690.

2.8 CABLE AND WIRING:

A. All conductors and insulation types shall be recognized and listed for the applications and environments they are subjected to. All conductors shall be copper with proper DC and AC ratings.

B. All exposed cables and conductors shall be routed in conduit, type R.G.S or I.M.C. Cables and conductors underground shall be routed in Sch 40 PVC.

2.9 SERVICE CONDITIONS:

A. All PV components shall be properly rated to function within design parameters at the altitude and temperatures associated with the proposed installation location.

2.10 EL PASO ELECTRIC APPLICATION:

A. The PV SI shall coordinate with El Paso Electric (EPE) as needed to have the PV system reviewed and approved by them. The PV SI shall make an application to EPE, prepare drawings and riser diagram for review as needed and make corrections as directed by them. The PV system installation shall include all inspections, metering, visible lockable disconnects, labeling, etc. as required by EPE.

2.11 STATE BUILDING PERMIT:

A. The PV SI shall submit electrical plans to The City of Sunland Park, Dona Ana County or CID as directed. The PV SI shall pay the permit fee.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Examine areas, equipment and structural foundations, and conditions for compliance with requirements for installation and other conditions affecting PV system performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FIELD QUALITY CONTROL:

A. Inverter Manufacturer's Field Service: Engage a factory-authorized service representative to inspect field-assembled components, provide start-up assistance, and calibrate, adjust, and make all settings associated with the inverter. Report results in writing.

B. Tests: Include the following documentation upon completion.

1. Tests recommended by manufacturer of PV components

2. International Electrical Testing Association Tests: Perform each visual and mechanical inspection and electrical and mechanical test stated in NETA ATS applicable to the PV system. Certify compliance with test parameter for tests performed.

C. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.

D. Record adjustable relay settings and measure insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component indicating satisfactory completion of tests.

E. Test instruments shall have been calibrated within the last 12 months, traceable to standards of the National Institute for Standards and Technology, and adequate for making positive observation of test results. Make calibration records available for examination on request.

3.3 INSTALLATION:

A. Comply with NECA 1.

B. Coordinate layout and installation of PV panels with support assembly and other construction.

C. Support PV panel assemblies from the ground supports

C. Install PV inverters in locations as determined by PV SI.

D. Wiring Method: Install cables in raceways.

E. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Install lacing bars and distribution spools.

F. Obtain final approval of the PV system from El Paso Electric. Make corrections required by them.

3.4 CONNECTIONS:

A. Coordinate PV panel cabling to equipment enclosures to ensure proper connections.

B. Coordinate installation of utility-interactive meter with utility.

C. Tighten electrical connections and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-4876B.

D. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

3.5 COMMISSIONING:

A. PV system: Record AC and DC voltages and power generators by the PV system at each PV panel and each invertor to assure that the system is operating within design and specified parameters.

3.6 CLEANING:

A. On completion of installation, inspect system components. Remove paint splatters and other spots, dirt, and debris. Repair damaged finishes to match original finish. Clean components internally using methods and materials recommended by the manufacturer.

3.7 DEMONSTRATION & TRAINING:

A. Engage a factory-authorized service representative to train Owner's representative personnel to adjust, operate, and maintain PV system as specified below:

1. Train owner's maintenance personnel on procedures and schedules for starting and stopping, operation of protective functions, troubleshooting, servicing, and maintaining equipment within the PV system.

2. Train owner designee on web-based monitoring.

3. Schedule training with Owner at least seven (7) days advance notice.

4. Minimum Instruction Period: eight hours.

END OF SECTION