**SECTION 105 – CONTROL OF WORK**

**105.01 AUTHORITY OF THE ENGINEER**

***ADD THE FOLLOWING TO THIS SUBSECTION:***

E. The Engineer shall not direct Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and program incident thereto and will not be responsible for Contractor’s failure to perform the work in accordance with the Contract.

F. Engineer will not be responsible for the acts or omissions of the Contractor, or any Subcontractor or any of his or their agents or employees or any other persons at the site or otherwise performing any of the work.

**105.02 PLANS AND WORKING DRAWINGS**

***ADD THE FOLLOWING TO THIS SUBSECTION:***

D. The Contractor shall make submittals for all materials prior to use. All submittals shall be via electronic communication (pdf at ≥ 300 dpi) unless otherwise approved by the Engineer.

1. All submittals made and signed by the Contractor shall be accompanied by a submittal coversheet with the Contractor’s review stamp and the Contractor’s standard transmittal form, containing, at a minimum, the bid item to which the submittal pertains. All submittals are to be numbered by specification section then sequential submittal number (e.g. 203-001, 203-002, etc.).
2. Any submittals not accompanied by such a form, or where all applicable items on the form are not completed, will be returned for re-submittal.
3. Items submitted by anyone other than the Contractor will be returned, without action, for resubmission by the Contractor.
4. All submittals shall be carefully reviewed by an authorized representative of the Contractor prior to submission to the Engineer.
5. Each submittal shall be dated, signed, and certified by the Contractor as being correct and in strict conformance with the Contract Documents.
6. All non-certified submittals will be returned to the Contractor without action taken by the Engineer and any delays caused thereby shall be the total responsibility of the Contractor.

E. The Contractor shall submit any City of Las Vegas acceptance letters for asphalt concrete, aggregate, and Portland Cement Concrete in the absence of test data.

1. If the asphalt concrete, aggregate, or Portland Cement Concrete mix designs are not on the current IQAC list of approved materials, a mix design for asphalt or Portland Cement Concrete or test data must be signed and approved by a Nevada Licensed P.E.
2. The Contractor shall establish its bid price according to the mix designs that are delineated on the current IQAC list of approved materials.
3. Any additional costs arising from mix designs submitted by the Contractor that are rejected for not meeting the IQAC criteria for any reason whatsoever shall be borne solely by the Contractor.
4. All mix designs are to be submitted thirty (30) days prior to anticipated material placement.

F. The Engineer’s review of working drawings submitted by the Contractor will cover only general conformity to the drawings, specifications and special provisions, external connections and dimensions which affect the layout. Unless otherwise specified within the Special Provisions, allow Owner fifteen (15) Working Days for each submittal review.

Note to Spec Writer – for any submittals that will require NDOT review, add 30 days to the review time for each item that you expect to be reviewed by NDOT. Also extend the contract time to allow for NDOT review.

1. The Engineer’s review does not indicate a thorough review of all dimensions, quantities and details of the material, equipment, devices or items shown.
2. The Engineer’s review of submittals shall not relieve Contractor from responsibility for errors, omissions, or deviations, or responsibility for compliance with the Contract Documents.
3. Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.

G. If a submittal is returned to the Contractor marked “NO EXCEPTIONS TAKEN” or “MAKE CORRECTIONS AS NOTED”, formal revision and resubmission of said submittal will not be required.

H. If a copy of the submittal is returned to the Contractor marked “AMEND – RESUBMIT”, or “REJECTED – RESUBMIT” the Contractor shall revise said submittal and shall resubmit to the Engineer.

1. When corrected copies are submitted, the Contractor shall indicate any revisions not made and any revisions made other than those called for by the Engineer on previous submissions.
2. Manufacture, fabrications or purchasing of items prior to final acceptance is at the Contractor’s own risk.

**105.03 CONFORMITY WITH PLANS AND SPECIFICATIONS**

***ADD THE FOLLOWING TO THIS SUBSECTION:***

D. In the event the Contractor desires to substitute materials or perform work that does not conform with the plans and specifications, the Contractor will make a written request to the Engineer for review and approval.

E. As a minimum, the written request will address the following:

1. The Contractor will demonstrate that the substituted materials and/or the performed work are of equal or greater value than the materials and/or work specified in the plans and specifications.
2. Various requests for substitution may require the seal and signature of approval from a licensed Nevada Professional Engineer. Prior to submitting a request for substitution, the Contractor shall inquire as to whether the Owner will require the approval of an Engineer, and if so, the Contractor will be responsible for the associated costs of this review.

F. The substitution of material or performance of work as requested by the Contractor will not begin until the Contractor has received a written approval by the Engineer. Any additional costs or delays incurred as a result of unapproved substitutions shall be the responsibility of the Contractor. Manufacture, fabrication or purchasing of items prior to final acceptance is at the contractor’s own risk.

**105.04 COORDINATION OF PLANS, SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS**

***DELETE THIS SUBSECTION IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:***

A. During the Bidding Phase of the proposed Work the governing order of the Bid Documents shall be per Instruction to Bidders (ITB) Section 3.2 “Governing Order of Bid Documents”.

B. After the Contract has been awarded, the governing order of the Contract Documents shall be per General Conditions (GC) Section 14.03 “Governing Order of Bid Documents”.

C. The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers such an error or omission, he shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

D. The Contractor shall attend the Pre-Construction meeting.

**105.05 COOPERATION BY CONTRACTOR**

***DELETE PARAGRAPH “A” OF THIS SUBSECTION AND REPLACE WITH THE FOLLOWING:***

A. All approved plans and contract assemblies including special provisions are available on demandstar.com or ngemnv.com and the Contractor is responsible for printing all copies for his use, one set of which the Contractor shall keep available on the work site at all times.

***DELETE PARAGRAPH “C” OF THIS SUBSECTION AND REPLACE WITH THE FOLLOWING:***

C. The Contractor shall provide his own mobile telephone, capable of making and receiving both local and long distance calls to allow communication with the Engineer and Resident Project Representative at all times. The contractor shall provide his own electronic device capable of receiving and sending e-mails from the field. The Contractor shall also provide his own electric power, potable water, construction water and sanitary facilities required in the performance of the work under the contract. All costs associated with these items shall be the responsibility of the Contactor.

***ADD THE FOLLOWING TO THIS SUBSECTION:***

G. Contractor shall utilize MasterWorks, the Owner’s online project management software as the primary means of communication with the Owner for this Project including, but not limited to, correspondence, submittals, claims, reports, schedules, manuals, invoices, photos, RFIs, change orders, and drawings.

 The Owner shall provide:

1. A limited training manual for the MasterWorks software and a maximum of two hours of MasterWorks software training for up to four people at the Owner’s offices.
2. The cost of any software licenses required by the MasterWorks software manufacturer or distributor.
3. User accounts for Contractor’s access to the MasterWorks software.

The Contractor shall provide:

1. Training of Contractor personnel required to utilize the MasterWorks software, except as provided by the Owner above.
2. Information using the forms, screen views, and information fields provided in the software and training materials.
3. Electronic notification in the MasterWorks software of any submittals that cannot be transmitted electronically, such as samples and spare parts.
4. Large format scanning capabilities with file size, resolution, and file naming convention as directed by the Owner.
5. Computer hardware, software, peripheral equipment, accessories, and Internet access as needed to integrate with and fully utilize the MasterWorks software, such as Adobe Acrobat, Internet Explorer, and Microsoft Word. The required equipment and capabilities shall be located at both the Project site and Contractor’s local office unless allowed otherwise by the Owner in writing.
6. Frequent monitoring of the MasterWorks software.

Documents approved in the MasterWorks software shall have the same effect as ink-signed originals. Accordingly, the Contractor is required to safeguard his usernames and passwords, particularly those that have been given the rights within the MasterWorks software to provide approvals, and no excuse will be entertained by the Owner for unauthorized MasterWorks software access that uses the Contractor’s assigned usernames. The Contractor shall ink-sign documents, in addition to or instead of the MasterWorks approvals, upon Owner request.

[LIST AND DESCRIBE ANY REQUIRED COORDINATION WITH CONCURRENT PROJECTS.] [LIST ANY CONTACTS FOR CONCURRENT PROJECTS AND SPECIAL EVENTS.]

**105.06 COOPERATION WITH UTILITIES**

***ADD THE FOLLOWING PARAGRAPHS TO THIS SUBSECTION:***

X. The Contractor shall be responsible for verifying that each utility has responded to each notification.

Y. If, during the course of paving operations, the Contractor paves over manholes, water, and/or gas distribution valves, the Contractor shall have no more than 48 hours to remove the asphalt over the manholes or valves and adjust the manholes or valves to grade. The Contractor shall be responsible for adequately marking all such manholes and valves prior to paving operations so as to readily locate them after paving. Adjustment of manhole and valves may require a temporary adjustment to dense grade prior to the permanent final adjustment to the top of finish grade.

Z. [DESCRIBE IN DETAIL WHAT utility relocations will be accomplished prior to the start of construction. The Contractor will be made aware of the status of utility relocations at the pre-construction meeting, so that said work can be taken into account in the construction schedule. Upon request, copies of the utility company’s relocation drawings will be made available to the Contractor.]. The Contractor shall be responsible for coordination with Utility Companies for, but not limited to, relocations to be performed by the Utility Company, installations to be performed by the Contractor, and field adjustments as required.  This list does not excuse the Contractor from coordination with any Utility Companies not listed below:

1. Las Vegas Valley Water District (LVVWD)

**Contact: [Name; phone number; email]**

[Improvements] Contractor to coordinate with LVVWD for required inspections.

1. NV Energy (NVE)

**Contact: [Name; phone number; email]**

NVE PROJ# XXX (Relocation)

NVE plans are included with the contract plans for work that will be completed as part of this contract by the Contractor and coordinated with NVE.

NVE PROJ# XXXX (Services)

NVE plans are included with the contract plans for work that will be completed as part of this contract by the Contractor and coordinated with NVE.

The Contractor shall coordinate with NVE and allow for time in the Contractors construction schedule for NVE to complete their work without delays to the Contractor’s operations. NVE will require **XX working days** of notice prior to the site availability for their work.

List any time restraints on NVE work that affect the contractor’s work schedule, especially seasonal work restraints.

1. Southwest Gas (SWG)

**Contact: [Name; phone number; email]**

SWG W.O.# XXXXX

SWG plans are included for “reference only” with [contract plans or in Appendix XX].  The Contractor shall review these plans and be made aware that concurrent construction will be required with portions of the Contractors work.  These improvements will be completed by SWG or their Contractor.

The Contractor shall coordinate with SWG and allow for time in the Contractors construction schedule for SWG to complete their work without delays to the Contractor’s operations.  SWG will require **XX working days** of notice prior to the site availability for their work.

For SWG relocation work that is to be done concurrently with the project, the Contractor shall develop mutually approved staging plans with the City and with SWG to ensure that SWG’s relocation work can be completed without conflicts or delays to the Contractor’s operations.  SWG will need **XX calendar days** to complete the work.

SWG will require **XX calendar days** to install [improvements].

When the relocation work of a SWG facility is within the limits of removals, excavation and/or construction for improvements as part of this Contract and as indicated within the plans, it shall be the Contractor’s responsibility to complete this work as per plan including the required traffic control, to facilitate the relocation of the SWG facility by SWG.  SWG will be responsible for relocating the gas facility and any other related work outside the limits of construction for this project including permanent asphalt patch.

The Contractor shall coordinate with SWG to verify the location and depth of all underground SWG facilities and provide a suitable timeframe for SWG to relocate their facilities without impeding or delaying the Contractor’s operation.

List any time restraints on SWG work that affect the contractor’s work schedule, especially seasonal work restraints.

1. Cox Communications (Cox)

**Contact: [Name; phone number; email]**

COX PR# XXX (Relocation)

COX will be relocating their own facilities within the project limits as shown in the “for reference only” plans included in [contract plans or in Appendix XX].  This work shall be done prior to or concurrently with this project

The Contractor shall coordinate with COX and allow for time in the Contractors construction schedule for COX to complete their work without delays to the Contractor’s operations. COX will require **XX working days** of notice prior to the site availability for their work.

1. Century Link

**Contact: [Name; phone number; email]**

CTL JOB N. XXXX (Relocation)

The Contractor shall coordinate with Century Link to verify the location and depth of all underground Century Link facilities.  Century Link will be responsible for lowering existing conduits and installing manholes concurrently with the Contractor’s construction without impeding or delaying the Contractor’s operation as per the Century Link drawings provided in the plans for reference only.  The Contractor shall notify Century Link **XX working days** before the start for Century Link required work and provide Century Link **XX working days** for required work.

1. Small Cell Sites

**Contact: [Name; phone number; email]**

CTL JOB N. XXXX (Relocation)

The Contractor shall coordinate with Small Cell Site to verify the location and depth of all underground Century Link facilities.  Small Cell Site will be responsible for lowering existing conduits and installing manholes concurrently with the Contractor’s construction without impeding or delaying the Contractor’s operation as per the Century Link drawings provided in the plans for reference only.  The Contractor shall notify Century Link **XX working days** before the start for Small Cell Site required work and provide Century Link **XX working days** for required work.

1. Etc.

**105.07 COOPERATION BETWEEN CONTRACTORS**

***ADD THE FOLLOWING PARAGRAPHS TO THIS SUBSECTION:***

E.

[LIST AND DESCRIBE ANY REQUIRED COORDINATION WITH CONCURRENT PROJECTS.] [LIST ANY CONTACTS FOR CONCURRENT PROJECTS AND SPECIAL EVENTS.]

Note to Spec Writer – for any Sanitary Sewer Rehabilitation projects, add the following paragraph:

F.      The contractor shall coordinate work with ADS Environmental Services minimum two weeks prior to work in manhole XX-XXXX (located at Xxxxx) for removal and re-installation of the permanent flow monitor in the manhole:

1.      ADS Environmental Services, Ashura Takanohara (256) 929-0075

**105.08 CONSTRUCTION STAKES, LINES AND GRADES**

***DELETE THIS SUBSECTION IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:***

A. Construction staking work shall be required of the Contractor, as indicated in Section 622 “Construction Surveying by the Contractor” of these Special Provisions, and shall conform to all requirements therein.

***DELETE SUBSECTION 105.09 “BLANK” OF THE USS IN ITS ENTIRETY AND REPLACE WITH 105.09 “RECORD DOCUMENTS” AS DESCRIBED BELOW:***

**105.09 RECORD DOCUMENTS**

A. General Instructions

1. Ensure entries are complete and accurate. Current Progress Record Documents shall be available for review by the Owner, Owner’s Consulting Engineer and the Owner’s Construction Management Consultant (if applicable) at all times during the progress of the work.
2. Store Progress Record Documents separate from documents used for construction.
3. Neatly record information concurrent with construction progress. Maintain Progress Record Documents in a clean and orderly manner. The Contractor shall not conceal any work until the required record information has been recorded on the record document set. The Contractor shall bear the cost of uncovering any prematurely concealed work for required record documentation.
4. Progress Record Documents shall be made available to the Owner, the Owner’s Consulting Engineer, and the Owner’s Construction Management Consultant (if applicable) for review at the site, at progress meetings, and during Owner’s review of the monthly progress bill requesting payment.
5. Failure of the Contractor to maintain a current record of information on the Progress Record Documents shall entitle the Owner to withhold payment until corrected. The release of payment to the Contractor shall be contingent upon the Contractor’s diligent performance as required herein.
6. Contractor may elect to use an electronic version of the contract documents for record documents in lieu of paper. All other provisions of this section still apply.
7. Progress Record Documents - The Contractor shall maintain the following documents, which constitute the Progress Record Documents, at the job site during construction:
8. Drawings – A full scale approved set of drawings for use as the Progress Record Document drawings.
	1. The Contractor will supplement the drawing set with approved drawings submitted as deferred submittals. The Contractor shall insert approved Addenda and revision sheets in front of the original sheet
	2. The Contractor shall legibly mark each sheet to record actual construction including (but not limited to):
		1. Measured horizontal and vertical locations of underground installations, utilities and appurtenances referenced to permanent surface improvements;
		2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work;
		3. Field changes of dimension and detail;
		4. Details not on original Contract Drawings
9. Specifications – The Contractor shall legibly mark and record at each product section description of actual products installed, including (but not limited to) the following:
	1. Manufacturer’s name and product model and number
	2. Product substitutions or alternates utilized;
	3. Changes made by addenda and modifications.
10. The Contractor shall keep copies of and maintain a record of all Change Orders and any other modifications to the Contract.
11. The Contractor shall keep copies of and maintain a record of all reviewed Shop Drawings, Product Data and Samples.
12. The Contractor shall keep copies of and maintain a record of all Manufacturer’s instructions for assembly, installation and adjusting.
13. Final Record Documents - Upon completion of the work, including all punch list items and prior to Release of Retention, the Contractor shall provide to Owner a complete set of Final Record Documents. The Final Record Documents shall be provided to the Owner electronically in pdf format. The Final Record Documents shall include (but not limited to) the following:
	1. Final Drawings
	2. The Contractor will supplement the drawing set with approved drawings submitted as deferred submittals. The Contractor shall insert approved Addenda and revision sheets in front of the original sheet including any revisions required for completion of the punch list.
	3. The Contractor shall legibly mark each sheet to record actual construction including, (but not limited to):
		1. Measured horizontal and vertical locations of underground installations, utilities and appurtenances referenced to permanent surface improvements;
		2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work;
		3. Field changes of dimension and detail;
		4. Details not on original Contract Drawings;
		5. Changes made during completion of the punch list.
	4. The Contractor shall mark each sheet as “Record” or “As-Built”.
	5. Specifications
14. Manufacturer’s name and product model and number
15. Product Substitutions or alternates utilized
16. Changes made by Addenda and modifications
17. Changes made during completion of the punch list.
	1. Contractor shall keep copies of and maintain a record of all Change Orders and any other modifications to the Contract including any changes made during completion of the punch list.
	2. The Contractor shall keep copies of and maintain a record of all reviewed Shop Drawings, Product Data, and Samples including any additional shop drawings, product data, and samples required for completion of the punch list.
	3. The Contractor shall keep copies of and maintain a record of all Manufacturer’s instructions for assembly, installation, and adjusting and any Manufacturer’s instructions for assembly, installation, and adjusting required for completion of the punch list.

**105.17 CLAIMS FOR ADJUSTMENT AND DISPUTES**

***DELETE PARAGRAPH “A” OF THIS SUBSECTION AND REPLACE WITH THE FOLLOWING:***

A. If the Contractor deems that additional compensation is due for work or material not clearly covered in the Contract and not ordered by the Engineer as extra work as defined herein, the Contractor shall notify the Engineer in writing within 24 hours of his intention to make claim for additional compensation before beginning the work which will be the subject of the claim.

1. If the notification is not given, and the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost as required, then the Contractor shall be deemed to have waived any claim for such additional compensation.
2. The notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving or substantiating the validity of the claim.
3. If the claim, after consideration by the Engineer, is found to be just, it will be paid as extra work as provided for as “Force Account” work.
4. Nothing in this subsection shall be construed as establishing any claim contrary to the terms of Subsection 104.02, “Increased or Decreased Quantities and Change in Character of Work”.

***DELETE PARAGRAPH “C” OF THIS SUBSECTION IN ITS ENTIRETY.***

***ADD THE FOLLOWING SUBSECTIONS:***

Note to Spec Writer – for CMAR Projects, do not include 105.18

**105.18 VALUE ENGINEERING PROPOSALS**

1. Value Engineering Proposals (VEP) may be submitted in writing for modifying the plans, specifications or other requirements of the contract for the purpose of reducing the total cost of construction without reducing design capacity or quality of the finished product. If accepted, net savings resulting from a VEP will be shared by the Owner and the Contractor on a 50-50 basis.
2. The requirements herein apply to all VEPs initiated and developed by the Contractor and which are identified as such at the time of submission. Nothing herein shall be construed as requiring consideration or approval of a VEP submitted hereunder.
3. Each VEP shall result in a net savings over the contract costs without impairing essential functions and characteristics of the item(s) or of any other part of the project, including but not limited to environmental considerations, service life, reliability, economy of operation, ease of maintenance, desired aesthetics and safety. Submit the following information with each VEP:

(a) A statement that the proposal is submitted as a VEP;

(b) A statement concerning the basis for the VEP and benefits to the Owner together with an itemization of the contract requirements affected by the VEP;

(c) A detailed estimate of the cost under the existing contract and under the VEP;

(d) Proposed specifications and recommendations as to how such VEP changes are to be accomplished; and

(e) A statement as to the time by which a contract change order adopting the VEP must be issued so as to obtain the maximum cost effectiveness.

1. The VEP will be processed in the same manner as prescribed for any other proposal which would necessitate issuance of a contract change order. The Owner may accept in whole or in part any VEP by issuing a contract change order which will identify the VEP on which it is based. The Owner will not be liable for failure to accept or act upon any VEP submitted pursuant to these requirements nor for any delays to the work attributable to any such proposal. Until a proposal is effected by contract change order, remain obligated to perform under the terms and conditions of the existing contract. If an executed contract change order has not been issued by the date upon which the proposal specifies that a decision thereon should be made, or such other date as the Contractor may have subsequently specified in writing, such proposal shall be deemed rejected.
2. The contract change order effecting the necessary contract modification will establish the net savings agreed upon, will provide for adjustment in the contract prices and will indicate the new savings to be equally divided between the Contractor and the Owner. Absorb all costs incurred in preparing a VEP for submission. All reasonably incurred costs of reviewing and administering the VEP will be borne by the Owner. The Owner reserves the right to include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the proposal. The Contractor’s 50% share of the net savings shall constitute full compensation to him for effecting all changes pursuant to the agreement.
3. Acceptance of the VEP and performance of the work thereunder will not change the contract time limit as a result of the VEP, unless specifically provided for in the contract change order authorizing the VEP.
4. The Owner expressly reserves the right to adopt a VEP for general use in contracts administered by the Owner when it determines that said proposal is suitable for application to other contracts. VEPs identical or similar to previously submitted proposals will be eligible for consideration and compensation under these provisions if such proposals were not previously adopted for general application to other contracts administered by the Owner. When a VEP is adopted for general use, compensation pursuant to these requirements will be applied only to those contracts awarded and for which the subject VEP has been submitted before the date of adoption of the specific VEP.
5. Proposed changes in the basic design of a bridge or pavement type, traffic control plan, or changes which require different right of way limits, will not normally be considered as an acceptable VEP. The elimination or changes to the required marination of plantmix bituminous aggregates will not be considered as an acceptable VEP. The Engineer shall be the sole judge of the acceptability of a VEP. Subject to the provisions contained herein, the Owner or any other public agency shall have the right to use all or part of any accepted VEP without obligation or compensation of any kind to the Contractor. In the event a VEP is accepted by the Owner, the provisions of Subsection 104.02 which pertain to adjustment of contract unit prices due to alterations of contract quantities will not apply to items adjusted or deleted as a result of effecting the VEP by contract change order.

Note to Spec Writer – The following QA, QC, and payment sections shall be used for Non-Federal projects ONLY.

**105.69 QUALITY ASSURANCE (QA)**

* 1. Quality Assurance encompasses the Engineer’s review and oversight of the Contractor’s Quality Control. Quality Assurance will verify the results of Quality Control and shall also be inspecting for conformance to plans and specifications.
	2. The Quality Assurance is the responsibility of the Engineer. Results determined by the Quality Assurance will be the deciding factor of the materials acceptance.

**105.70 QUALITY CONTROL (QC)**

* 1. The Contractor is responsible for submitting a Quality Control Program to the Engineer for acceptance two weeks prior to the tentative notice to proceed and must be approved prior to beginning work. If a program is not submitted for acceptance, the Contractor is responsible to have Quality Control performed in accordance with Sections 111 through 117 of these special provisions and the requirements set forth in the latest copy of the approved City of Las Vegas Department of Public Works Construction Quality Program for non-federal projects (See Appendix X).
	2. The Contractor Quality Control Program is to ensure that materials and workmanship incorporated into the work meet the requirements of the Standard Specifications, Special Provisions, and all other contract documents. Quality Control is the sole responsibility of the Contractor for all projects.
	3. In order to ensure an understanding of the program by all persons, including both Quality Control and Quality Assurance, there is a mandatory Quality Control program pre-activity meeting to be conducted by the Engineer.

***ADD THE FOLLOWING SUBSECTION:***

**105.71 PAYMENT FOR CONTRACTOR QUALITY CONTROL PROGRAM**

* 1. Payment will be made for Contractor Quality Control. The costs for all quality control efforts required to complete the work described in the General and Special Provisions and project Drawings, including the Contractor’s QC Plan, punch list, and cleanup shall be paid as LUMP SUM.
	2. The LUMP SUM price bid for Contractor Quality Control shall include full compensation for performing all required control of quality including, but not limited to, costs to develop the quality control program, management of the quality control program, on-site testing, off-site source/production inspection, off-site source/production testing, laboratory testing of field samples, preparation of the weekly and monthly reports, submittal of the program, submittal of results and daily, weekly, and monthly reporting of results.
	3. The Engineer may request additional testing not to exceed a maximum of 5% of the required testing for a given type performed on the project at no additional cost to Owner. Additionally, extra testing required for minor line item extensions, up to 5% increase in said line item will be performed on the project at no additional cost to Owner
	4. Testing at a frequency greater than the minimum called for, other than at the direction of the Engineer, is considered to be a methods and means decision of the Contractor and as such is at the expense of the Contractor.
	5. In the event of improperly conducted Quality Control Program, the Progress Payment amount will be reduced by **$300.00** per day per incident by the Engineer until resolved. No retroactive payments will be provided for improperly conducted Quality Control Program. An incident is defined as:
		1. The use of an incorrect or the improper test method.
		2. Non-compliance to any portion of the Contractor Quality Control Program.
		3. Non inspection
		4. No documentation of inspection
		5. No notification of the QA inspector
		6. Not using hold points.
		7. No pre-activity meeting.
		8. Improperly submitted reports.
		9. Testing not in conformance with the testing procedure.
		10. Lack of timely resolution of deficiencies and non-compliances.
		11. Non-compliance of a Quality Control Administration audit.
	6. If the testing was conducted by a non-accredited laboratory, the testing will not be accepted and payment will not be made for the installed material or testing cost unless resolved to the satisfaction of the Engineer within 30 days. If after 30 days, the laboratory cannot satisfy the Engineer, the Contractor shall replace the non-complying laboratory. If the testing was conducted by a non-certified technician, the quantity of material and testing cost shall be subject to non-payment and the Contractor shall also pay for the Quality Assurance testing until such time the certified technician is replaced.
	7. The Contractor shall implement removal of personnel for the following infringements:
		1. Nonqualified personnel based on the ICC, WAQTC, and NAQTC requirements.
		2. Knowingly falsify contract documents of any kind.

|  |  |  |
| --- | --- | --- |
| **ITEM NO.** | **ITEM DESCRIPTION** | **UOM** |
| 105.0010 | CONTRACTOR QUALITY CONTROL | LS |

**END OF SECTION 105**

Note to Spec Writer – The following QA, QC, IA, and Audits sections shall be used for Federal projects ONLY.

**105.69 QUALITY ASSURANCE (QA)**

* 1. Quality Assurance encompasses the Engineer’s review and oversight of the Contractor’s Quality Control. Quality Assurance will verify the results of Quality Control and shall also be inspecting for conformance to plans and specifications.
	2. The Quality Assurance is the responsibility of the Engineer. Results determined by the Quality Assurance will be the deciding factor of the materials acceptance.
	3. For inspection and testing requirements, frequencies, and procedures, the latest copy of the NDOT approved City of Las Vegas Department of Public Works Construction Quality Program shall be followed.

**105.70 QUALITY CONTROL (QC)**

* 1. The Contractor Quality Control Program was developed to ensure that materials and workmanship incorporated into the work meet the requirements of the Standard Specifications, Special Provisions, and all other contract documents. Quality Control is the sole responsibility of the Contractor. Quality Control shall be performed in accordance with Sections 111 through 117 of these special provisions and the latest copy of the NDOT approved City of Las Vegas Department of Public Works Construction Quality Program.
	2. In order to ensure an understanding of the program by all persons, including both Quality Control and Quality Assurance, there is a mandatory Quality Control program pre-activity meeting to be conducted by the Engineer. The contractor shall have the Responsible Person-in-Charge, Quality Control Coordinator, and the testing professional engineer at the meeting. The positions are defined in Section 113, “Contractor Quality Control Organization and Qualification of Laboratories and Technicians”.

***ADD THE FOLLOWING SUBSECTION:***

**105.71 INDEPENDENT ASSURANCE SAMPLING**

A. The Contracting Agency Independent Assurance (IA) person is responsible for administering the split sample program among the various QC and QA certified personnel. This involves supervising the sampling, splitting, and distribution of the samples and collecting and reporting the results of the tests and the observation of the testing.

B. The IA is performed by a consultant contracted by the Contracting Agency.

C. As a part of the regular IA sampling and testing program samples are split three ways by the QC personnel as directed by the IA. One sample is tested by QC, one is tested by QA and one is retained by IA. The IA unit may observe the QA/QC testing process. The Contractor shall expect that up to three of the materials listed below shall be required for sampling throughout the duration of the contract:

* 1. Select Borrow.
	2. Selected Material.
	3. Granular and Drain Backfill.
	4. Base Aggregates.
	5. Concrete Aggregates.
	6. Aggregates for Plantmix Bituminous Surface and UTACS.
	7. Concrete.
	8. Plantmix Bituminous Surface.
	9. UTACS.

D. The IA person shall retain custody of the samples from the time they are taken until they are delivered to the QC or QA laboratories for testing.

E. The test results for this sampling shall be transmitted as per the contract documents. The results shall not be a part of the contract acceptance data.

***ADD THE FOLLOWING SUBSECTION:***

**105.72 ENGINEER AUDITS**

A. The Engineer will audit randomly the Contractor project records. These will be scheduled by the Engineer in coordination with the Contractor. Audits will be subject to a $100 demerit for the third and subsequent non-compliant items.

B. A mandatory pre-audit will be conducted for projects of durations greater than or equal to 6 months in duration within one month of the project construction start. For all other projects, they shall be scheduled within two weeks, or as determined by the Engineer.

**END OF SECTION 105**