



**Request for Proposals # 274-SecCam-2023**

**Title: Security Camera Upgrades**

**Issue Date:** August 4, 2023

**Due Date:** August 14, 2023 no later than 5:00PM EST

**\*LATE PROPOSALS WILL NOT BE ACCEPTED\***

**Issuing Department: *Transportation/Transit***

**Direct all inquiries concerning this RFP to:**

Sara Tromba

Sr. Engineering Specialist

Email: [sara.tromba@raleighnc.gov](mailto:sara.tromba@raleighnc.gov)

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# 1 INTRODUCTION

## 1.1 **Purpose**

The City of Raleigh (COR) is soliciting proposals from one or more firm(s) with which to contract for the following services:

*Security Camera Upgrades at GoRaleigh Station and GoRaleigh's new Park and Ride Lot, including new or relocated cameras, software, licensing, server, and training.*

A detailed scope of services is provided in Section 4 of this document.

All information related to this solicitation, including any addenda, will be posted to the North Carolina electronic Vendor Portal (eVP) at <https://evp.nc.gov/>.

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	Email Address
Sara Tromba	Sara.tromba@raleighnc.gov

Questions submitted via telephone will not be answered.

## 1.2 **Background**

The City of Raleigh, the Capital City of North Carolina, remains one of the fastest growing areas in the country. A great economy, top educational institutions, and exceptional health care facilities are some of the characteristics that attract people to the triangle area. The mild climate, diverse work force and proximity to Research Triangle Park combine to make Raleigh a great place to live.

Raleigh is a 21<sup>st</sup> Century City of Innovation focusing on environmental, cultural, and economic sustainability. The City conserves and protects our environmental resources through best practice and cutting-edge conservation and stewardship, land use, infrastructure and building technologies. The City welcomes growth and diversity through policies and programs that will protect and enhance Raleigh's existing neighborhoods, natural amenities, history, and cultural and human resources for future generations. The City leads to improve quality of life for neighborhoods and standard of living for all citizens. The City works with universities, colleges, citizens, and local partners to promote new technology, create new job opportunities, and encourage local businesses and entrepreneurs. The City enlists and prepares 21<sup>st</sup> Century staff with the skill sets to carry out the duties of the City through transparent civic engagement and by providing the very best customer service to our citizens.

*This project will afford better video camera surveillance of existing and new GoRaleigh facilities.*

### 1.3 **Request for Proposal (RFP) Timeline**

Provided below is a list of the anticipated schedule of events related to this solicitation. The City of Raleigh reserves the right to modify and/or adjust the following schedule to meet the needs of the service. All times shown are Eastern Time (EST):

RFP Process	Date and Time
RFP Advertisement Date	08-04-23
Pre-Proposal Conference (if required)	N/A
Deadline for Written Questions	08-08-23
City Response to Questions (anticipated)	08-09-23
<b>Proposal Due Date and Time</b>	<i>08-14-23, No later than 5:00 pm</i>

### 1.4 **Not Used**

### 1.5 **Proposal Questions**

Requests for clarification and questions to this RFP must be received by the City not later than the date shown above in the RFP Timeline (Section 1.3) for the submittal of written inquiries. The firm's failure to request clarification and submit questions by the date in the RFP Timeline above shall be considered to constitute the firm's acceptance of all City's terms and conditions and requirements. The City shall issue addenda reflecting questions and answers to this RFP, if any, and shall be posted to North Carolina electronic Vendor Portal ([eVP](#)). No information, instruction or advice provided orally or informally by any City personnel, whether made in response to a question or otherwise in connection with this RFP, shall be considered authoritative or binding. Respondents shall be entitled to rely *only* on written material contained in an Addendum to this RFP.

***It is important that all Respondents submitting to this RFP periodically check [eVP](#) for any Addenda. It is the Respondents responsibility to ensure that all addenda have been reviewed and, if required signed and returned.***

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	Email Address
Sara Tromba	<a href="mailto:Sara.tromba@raleighnc.gov">Sara.tromba@raleighnc.gov</a>

Questions submitted via telephone will not be answered.

### 1.6 **Proposal Submission Requirements and Contact Information**

Proposals must follow the format as defined in Section 2 (PROPOSALS), and be addressed and submitted as follows:

Proposals must be submitted via email to [Sara.Tromba@raleighnc.gov](mailto:Sara.Tromba@raleighnc.gov) clearly marked with the name of the submitting company, the *RFP number* and the *RFP Title*. Proposals received after the RFP due date and time will not be considered.

Any requirements in the RFP that cannot be met must be indicated on Appendix VI: Exceptions to the RFP and submitted with the proposal. **Proposers must respond to the entire Request for Proposals (RFP). Any incomplete proposal may be eliminated from competition at the discretion of the City of Raleigh.** The City reserves the right to reject any or all proposals for any reason and to waive any informality it deems in its best interest.

Proposals that arrive after the due date and time will not be accepted or considered for any reason whatsoever. It is the responsibility of the firm to ensure that their proposal arrives at the email inbox address specified in this Section by the due date and time specified in the RFP Timeline (Section 1.3).

### **1.7 DBE Participation Form**

The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

Complete and submit the DBE Participation Form (Appendix IV) with your proposal.

### **1.8 Rights to Submitted Material**

All proposals and supporting materials, as well as correspondence relating to this RFP, shall become the property of the City. The content of all submittals will be held confidential until the selection of the firm is made. Proposals will be reviewed by the Evaluation Team, as well as other City staff and members of the general public who submit public record requests. ***Any proprietary data must be clearly marked.*** In submitting a Proposal, each Prospective Proposer agrees that the City may reveal any trade secret materials contained in such response to all City staff and City officials involved in the selection process and to any outside consultant or other third party who serves on the Evaluation Team or who is hired by the City to assist in the selection process.

The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the proposer of the conditions contained in this Request for Proposals. Proposals marked entirely as “confidential”, “proprietary”, or “trade secret” will be considered non-responsive and will be removed from the evaluation process.

### **1.9 Communications**

All communications of any nature regarding this RFP with any City staff, elected City officials, evaluation committee members, are strictly forbidden from the time the solicitation is publicly posted until award. Questions must be submitted in writing to the individual designated in Section 1.1 (Purpose), prior to the deadline provided in the RFP

Timeline (Section 1.3). Violation of this provision may result in the firm's proposal being removed from consideration.

#### **1.10 Lobbying**

By responding to this solicitation, the firm certifies that it has not and will not pay any person or firm to influence or attempt to influence an officer or employee of the City or the State of North Carolina, or any elected official in connection with obtaining a contract as a result of this RFP.

#### **1.11 Conflicts of Interest**

City of Raleigh contracts are controlled by three conflict of interest provisions.

First, federal procurement standards provide in 2 CFR 200.318 (c)(1),

No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or a firm which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of the non-Federal entity may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts.

Similarly, the North Carolina General Statutes provides a *criminal* statute for conflicts of interest in public contracting. N.C.G.S. § 14-234(a):

(1) No public officer or employee who is involved in making or administering a contract on behalf of a public agency may derive a direct benefit from the contract except as provided in this section, or as otherwise allowed by law. (2) A public officer or employee who will derive a direct benefit from a contract with the public agency he or she serves, but who is not involved in making or administering the contract, shall not attempt to influence any other person who is involved in making or administering the contract. (3) No public officer or employee may solicit or receive any gift, favor, reward, service, or promise of reward, including a promise of future employment, in exchange for recommending, influencing, or attempting to influence the award of a contract by the public agency he or she serves.

City of Raleigh Charter Section 3.9 regulates private transactions between the City and its officials and employees. The Charter states:

No member of the City Council, official, or employee of the City of Raleigh shall be financially interested, or have any personal beneficial interest, either directly or indirectly, as agent, representative, or otherwise, in the purchase of, or contract for, or in furnishing any materials, equipment or supplies to the City of Raleigh, nor shall any official or employee of the City of Raleigh accept or receive, or agree to accept or receive, directly or indirectly, from any person, firm or corporation to whom any contract may be awarded or from whom any materials, equipment or supplies may be purchased by the City of Raleigh, by rebate, gift, or otherwise, any money or anything of value whatsoever, or any promise, obligation or contract for future reward or compensation, for recommending or procuring the uses of any such materials, equipment or supplies by the City of Raleigh;

no member of the City Council, official or employee of the City of Raleigh shall for his own personal benefit operate, directly or indirectly, any concession in any building or on any lands of the City of Raleigh, nor shall any official or employee of the City of Raleigh bid for or be awarded any contract granting concessionary rights of any nature or kind from the City of Raleigh; it shall be unlawful for any member of the City Council, official or employee of the City of Raleigh to bid for or to purchase or to contract to purchase from the City of Raleigh any real estate, equipment, materials, or supplies of any nature or kind whatsoever, either directly or indirectly, at either public or private sale, either singly, or through or jointly with any other person.

#### **1.12 Proposer Expenses**

The City of Raleigh will not be responsible for any expenses incurred by any Proposer in the development of a response to this Request for Proposal or any other activities associated with this procurement including but not limited to any onsite (or otherwise) interviews and/or presentations, and/or supplemental information provided, submitted, or given to City of Raleigh and/or its representatives. Further, the City of Raleigh shall reserve the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended Proposer even if the awarding authority for each entity has formally accepted a recommendation.

#### **1.13 Proposer Acceptance**

Submission of any proposal indicates a Proposer's acceptance of the conditions contained in this RFP unless clearly and specifically noted otherwise on Appendix VI Exceptions to RFP and submitted with proposal. Furthermore, the City of Raleigh is not bound to accept a proposal on the basis of lowest price, and further, the City of Raleigh has the sole discretion and reserves the right to cancel this RFP, and to reject any and all proposals, to waive any and all informalities and/or irregularities and reserves the right to re-advertise this RFP with either the identical or revised scope and specifications if it is deemed to be in the best interests of the City of Raleigh to do so. The City of Raleigh reserves the right to accept or reject any or all of the items in the proposal, and to award the contract in whole or in part and/or negotiate any or all items with individual Proposers if it is deemed in the best interest of the City of Raleigh to do so. Moreover, the City of Raleigh reserves the right to make no selection if proposals are deemed to be outside the fiscal constraint or not in the best interest of the City of Raleigh.

## **2 PROPOSALS**

Responses must follow the format outlined below. The City may reject as non-responsive at its sole discretion any proposal that does not provide complete and/or adequate responses or departs in any substantial way from the required format.

#### **2.1 Request for Proposals Required Document Format**

Responses should be divided using tabs to separate each section, listed sequentially as follows:

##### **Tab 1: Cover Letter**

Provide an introduction letter summarizing the unique proposal of your firm to meet the needs of this service requirement. This letter should be presented on the firm's official letterhead and signed by an authorized representative who has the authority to enter into a contract with the City on behalf of the firm. Additionally, include the name, address, telephone and email address of the individual who serves as the point of contact for this solicitation. Attach a copy of your firm's [SAM.gov](https://sam.gov) registration. **Include in Tab 1 executed copies of Federal Attachments A, D, and E.** Do not include Attachments B or C, if your proposal is less than \$250,000. Federal Attachments are located at the back of Appendix VII.

**Tab 2: Corporate Background and Experience**

Include background information on the firm and provide detailed information regarding the firm's experience with similar projects. Provide a list of all similar contracts performed in the past three (3) years, accompanied by at least two (2) references (contact persons, firm, telephone number and email address).

Include the total amount invoiced for each listed project, the length of the project, and list of those involved in the project who are also proposed for the subject project named in this solicitation. Failure to provide a list of all similar contracts in the specified period may result in the rejection of the firm's proposal. The evaluation team reserves the right to contact any or all listed references, and to contact other public entities regarding past performance on similar projects.

**Tab 3: Financial Information**

Review and provide one of the following three (3) financial statement options:

1. Recent audited or reviewed financial statements prepared by an independent certified public accountant (CPA) that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the audited or reviewed financial statements were prepared more than six (6) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures from the date of the audited or reviewed financial statements to the end of the most recent financial reporting period (i.e., the quarter or month preceding the issuance date of this RFP)).

OR

2. Recent compiled financial statements prepared by an independent CPA that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the compiled financial statements were prepared more than three (3) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures to date), and other evidence of financial stability such as most recently filed income tax return, evidence of a line of credit/loans/other type of financing with statement of amount in use/outstanding balance (e.g., a complete copy commitment letter, loan agreement, billing statement reflecting the line of credit or statement from lender acknowledging the commitment to fund the Proposer's stated financing), personal guaranty with



copies of personal income tax filing and statement of net worth or such other evidence that is accurate, reliable and trustworthy regarding the Proposer's financial stability.

OR

3. Include a certified, signed statement from a licensed CPA regularly engaged in the review of the firm's financial information verifying the financial viability of the firm.

All financial information, statements and/or documents provided in response to this solicitation shall be kept confidential provided that EACH PAGE is marked as follows: "CONFIDENTIAL – DO NOT DISCLOSE EXCEPT FOR THE EXPRESS PURPOSE OF PROPOSAL EVALUATION."

**"Recent"** shall be defined as financial statements that were prepared within the 12 months preceding the issuance date of this RFP.

**Consolidated financial statements** of the Proposer's parent or related corporation/business entity shall not be considered, unless: (1) the Proposer's actual financial performance for the designated period is separately identified in and/or attached to the consolidated statements, (2) the parent or related corporation/business entity provides the State with a document wherein the parent or related corporation/business entity will be financially responsible for the Proposer's performance of the contract and the consolidated statement demonstrates the parent or related corporation's/business entity's financial ability to perform the contract, financial stability and/or such other financial considerations identified in the evaluation criteria; and/or (3) Proposer provides its own internally prepared financial statements and such other evidence of its own financial stability identified above.

The firm's failure to provide any of the above-referenced financial statements may result in the proposal being removed from consideration. Proposers are also encouraged to explain any negative financial information, and to provide documentation supporting those explanations and demonstrating the financial strength of the firm.

#### **Tab 4: Project Understanding, Approach and Schedule**

Provide a comprehensive narrative, outline, and/or graph demonstrating the firm's understanding and approach to accomplishing the tasks outlined in the Scope of Work section of this RFP. A description of each task and deliverable and the schedule for accomplishing each shall be included.

#### **Tab 5: Team Firm, Experience and Certifications**

This section must include the proposed staffing, deployment and firm of personnel to be assigned to this project. The Proposer shall provide information as to the Proposals and experience of all executive, managerial, legal, and professional personnel to be assigned to this project, including resumes citing experience with similar projects and the responsibilities to be assigned to each person. A project-specific firm chart which clearly illustrates the roles, responsibilities, and the reporting relationships of each team member should be included.

#### **Tab 6: Cost**

In a separate file accompanying your submittal, provide a copy of cost schedule. Hourly rates shall be fully burdened to include all costs, all applicable overhead and profit (including lodging, meals, and transportation). Attach any additional pricing details. **DO NOT INCLUDE SALES TAX.**

## 2.2 RFP Documents

This RFP is comprised of the base RFP document, any attachments, and any addenda released before Contract award. All attachments and addenda released for this RFP in advance of any Contract award are incorporated herein by reference.

## 3 PROPOSAL EVALUATION

### 3.1 Proposal Evaluation Criteria

This is not a bid. There will not be a public opening. The Proposals received in response to this RFP will be evaluated and ranked, by the Proposal Evaluation Committee in accordance with the process and evaluation criteria contained below. Responses will be evaluated in light of the material and substantiating evidence presented in the response, and not on the basis of what is inferred. After thoroughly reading and reviewing this RFP, each Evaluation committee member shall conduct his or her independent evaluation of the proposals received and grade the responses on their merit in accordance with the evaluation criteria set forth in the following table.

Criteria	(a) Weight	(b) Score (0-3)	(a) x (b) Weighted Score
Corporate Background and Experience	20		
Firm Financial Stability	10		
Project Understanding	20		
Project Approach	10		
Team Firm Experience	20		
Proposed Cost	20		
<b>Total Score (without Interview/Demonstrations)</b>			
<b>Final Score</b>			

### Score Points

0- Missing or Does Not Meet  
Expectation

1- Partially Meets Expectation

2- Meets Expectation

3- Exceeds Expectation

**Cost Formula:** The cost criterion is rated by giving the proposal with the lowest total cost the maximum number of Cost points available. The remaining proposals are rated by applying the following formula:

$$1 - \frac{B - A}{A} \times C = D$$

A—the lowest Proposer's cost.

B—the Proposer's cost being scored.

C—the maximum number of cost points available.

D—Proposer's cost score (points).

Note: If the formula results in a negative number (which will occur when the Offeror's cost is more than twice the lowest cost), zero points shall be assigned.

### **3.2 Not Used**

### **3.3 Final Selection**

Proposals will be evaluated and ranked according to the criteria and weighted values set forth in Section 3.1.

After which negotiations of a contract with the most qualified firm will commence. If negotiations are unsuccessful, the City will then pursue negotiations with the next most qualified firm. All Proposers will be notified of their standing immediately following the City's decision.

The City shall not be bound or in any way obligated until both parties have executed a contract. The City also reserves the right to delay the award of a contract or to not award a contract.

### **3.4 Notice to Proposers Regarding RFP Terms and Conditions**

It shall be the Proposer's responsibility to read the Instructions, the City's Standard Contract Terms and Conditions (Appendix V), all relevant exhibits, attachments, and any other components made a part of this RFP and comply with all requirements and specifications herein. Proposers are also responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this RFP.

### **3.5 Contract Term**

The Contract shall have an initial term of one (1) year, beginning on the date of the Contract award (the "Effective Date"). At the end of the Contract's current term, the City shall have the option, in its sole discretion, to renew the Contract on the same terms and conditions for up to a total of two (2) additional one-year terms. The City will give the Contractor written notice of its intent whether to exercise each option no later than sixty (60) days before the end of the Contract's then-current term. In addition, the City reserves the right to extend a contract term for a period of up to 180 days in 90-day-or-less increments.

## **4 SCOPE OF SERVICES**

Awarded Contractor shall provide services, all as set forth in this RFP and more particularly described in this Section 4.

**NOTE:** This work involves Federal funding and is subject to Davis Bacon wage rates. The minimum hourly rate of pay is \$16.20/hour. Current wage rates are included in Appendix VIII of this solicitation. DBE participation goal for the project is 13%

The project involves the upgrading and addition of Security Cameras at three locations, divided into four (4) separate, but interconnected scopes of work.

### **1. GoRaleigh Station Milestone Upgrade/Server Installation.**

#### **Equipment- Video Surveillance**

- (1) R740 video server 2U, 14-bay build with 6x 20TB SATA HDD in RAID 5
- (1) Milestone Xprotect Professional+ software upgrade for base, client, and device licensing
- (1) 42" vertical wall mount server rack with fan kit
- (1) 2U rackmount 1500VA capacity line interactive UPS

#### **Installation**

Install rack mount, server, and UPS in Telecom Room 006  
Connect to existing power and network switches  
Install Milestone software and licensing and program server  
Program all existing cameras, users, groups, and IP configurations  
Verify with City of Raleigh IT to upload to city network

### **2. GoRaleigh Station Camera System Improvements/Additions**

#### **Equipment- Video Surveillance**

- (1) 5MP fixed dome camera with wall mount hardware
- (1) 8.3MP dual lens, 180 degree camera with wall mount hardware
- (4) 5MP x 2 dual lens, multi-directional camera with ceiling mount hardware
- (2) 5MP x 3 multi-lens, 270 degree camera with corner mount hardware
- (1) 5MP x 4 multi-lens, 360 degree camera with ceiling mount hardware
- (9) Milestone device licenses

#### **Installation**

Installation of 9 new cameras, 6 at new locations, and 3 replacing existing cameras

### **3. GoRaleigh 4104 Poole Road Milestone Licensing and Installation**

#### **Software/Licensing**

Milestone Xprotect Professional+ software for base, client, and device licensing

### **Installation**

Connections, testing, and programming of conversion from Avigilon software to Milestone XProtect+ Professional

Program all cameras, users, groups, and IP configurations

Verify with City of Raleigh IT to upload to city network

## **4. GoRaleigh Camera Installation 813 Bus Way**

### **Equipment**

(2) 5MP fixed dome camera

(4) multi-sensor dome camera, 3 x 5MP lens(270) with mounting hardware (9) multi-sensor dome camera, 4 x 5MP lens(360) with mounting hardware (15) Milestone device licenses

(15) fiber media converter

(15) fiber power supply

(1) fiber media converter rack, 16 slot

(30) fiber terminations

(15) terminations in existing weatherproof enclosure

### **Installation**

Provide complete installation and testing of cameras, media converters, power supplies, and other equipment mentioned above. Conduit and fiber has been installed to all locations.

Program all cameras, users, groups, and IP configurations

Verify with City of Raleigh IT to integrate with City network

**APPENDIX I**  
**PROPOSAL COST FORM**

Awarded Contractor shall perform the services to be performed as set forth in this RFP and more particularly described in Section 4 for a not to exceed total amount of

\$\_\_\_\_\_.

Proposer shall attach proposal cost breakdown to this Appendix I Proposal Cost Form.

- |   |                |
|---|----------------|
| 1. GoRaleigh Station Milestone Upgrade/Server Installation        | \$_____        |
| 2. GoRaleigh Station Camera System Improvements/Additions         | \$_____        |
| 3. GoRaleigh 4104 Poole Road Milestone Licensing and Installation | \$_____        |
| 4. GoRaleigh Camera Installation 813 Bus Way                      | \$_____        |
| <b>Total Amount must equal not to exceed amount listed above</b>  | <b>\$_____</b> |

---

Firm Name: \_\_\_\_\_

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Signed by: \_\_\_\_\_  
[Type or Print Name]

Title of Signer: \_\_\_\_\_

## APPENDIX II PROPOSER QUESTIONNAIRE

The following questions must be answered, and data given must be clear and comprehensive. If necessary, questions may be answered on separate sheets. The Proposer may submit any additional information desired.

Company Name:		d/b/a (if applicable)	
Street / PO Box:			
City:		State:	Zip:
Phone:		Fax:	E-Mail:
Website (if applicable):			
<input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> Other			
Number of years in business under company's present name:			
Fed Tax ID #:		DUNS #	
Are you registered with the North Carolina Secretary of State to conduct business (if required)? (Check One) YES: <input type="checkbox"/> NO: <input type="checkbox"/> Not Applicable: <input type="checkbox"/>			
Are you properly licensed/certified by the Federal and/or State of North Carolina to perform the specified work?			
YES: <input type="checkbox"/> NO: <input type="checkbox"/> Not Applicable: <input type="checkbox"/> ATTACH COPY OF ALL APPLICABLE LICENSING/CERTIFICATION DOCUMENTS			
Are/will you be properly insured to perform the work? YES: <input type="checkbox"/> NO: <input type="checkbox"/>			
Contact for this Contract:		Title:	
Phone:		Fax:	E-Mail:
Have you ever defaulted or failed on a contract? (If yes, attach details) YES: <input type="checkbox"/> NO: <input type="checkbox"/>			
List at least three (3) references for which you have provided these services (same scope/size) in the past three years - preferably government agencies. Do not include City of Raleigh as a reference to meet the requirement of listing at least (3) references. <b>PROPOSERS ARE RESPONSIBLE FOR SENDING REFERENCE QUESTIONNAIRE (APPENDIX III) TO THEIR REFERENCES.</b>			
1.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
2.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
3.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
4.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
5.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
The undersigned swears to the truth and accuracy of all statements and answers contained herein:			
Authorized Signature:		Date:	

**APPENDIX III**  
**REFERENCE QUESTIONNAIRE**  
**(Instructions)**

**274-SecCam-2023**  
**Security Camera Upgrades**

The City of Raleigh, as a part of the RFP, requires proposing companies to submit a minimum of three (3) business references as required within this document. The purpose of the references is to document the experience of the proposer relevant to the scope of services and assist in the evaluation process.

- The Proposer is required to send the reference form (the following two pages) to each business reference listed on Proposer Questionnaire.
- The business reference, in turn, is requested to submit the Reference Form directly to the City of Raleigh Point of Contact identified on the Reference Questionnaire form for inclusion in the evaluation process.
- The form and information provided will become a part of the submitted proposal. The business reference may be contacted for validation of the response.
- It is the Proposer's responsibility to verify their references have been received by the City of Raleigh Point of Contact by the date indicated on the reference form.



## **APPENDIX III**

### **REFERENCE QUESTIONNAIRE FORM**

#### **274-SecCam-2023 Security Camera Upgrades**

\_\_\_\_\_  
**(Name of Business Requesting Reference)**

This form is being submitted to your company for completion as a business reference for the company listed above.

This form is to be returned to the City of Raleigh, **Sara Tromba** via email to [sara.tromba@raleighnc.gov](mailto:sara.tromba@raleighnc.gov) no later than **5 p.m. EST, August 14, 2023** and **MUST NOT** be returned to the company requesting the reference.

For questions or concerns regarding this form, please contact the City of Raleigh, Point of Contact above.

**Company Providing Reference**

**Contact Name and Title/Position**

**Contact Telephone Number**

**Contact Email Address**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Questions:

1. In what capacity have you worked with this company in the past? If the company was under a contract, please acknowledge and explain briefly whether or not the contract was successful.

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. How would you rate this company's knowledge and expertise?

☐ 3= Excellent

☐ 2= Satisfactory

☐ 1= Unsatisfactory

☐ 0= Unacceptable

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. How would you rate the company's flexibility relative to changes in the scope and timelines?

☐ 3= Excellent

☐ 2= Satisfactory

☐ 1= Unsatisfactory

☐ 0= Unacceptable

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. What is your level of satisfaction with hard-copy materials, e.g. reports, logs, etc. produced by the company?  
☐ 3= Excellent      ☐ 2= Satisfactory      ☐ 1= Unsatisfactory      ☐ 0= Unacceptable

Comments:

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5. How would you rate the dynamics/interaction between the company and your staff?  
☐ 3= Excellent      ☐ 2= Satisfactory      ☐ 1= Unsatisfactory      ☐ 0= Unacceptable

Comments:

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6. Who were the company's principle representatives involved in providing your service and how would you rate them individually? Would you comment on the skills, knowledge, behaviors or other factors on which you based the rating?  
(3= Excellent; 2= Satisfactory; 1= Unsatisfactory; 0= Unacceptable)

Name:	_____	Rating:	_____
Name:	_____	Rating:	_____
Name:	_____	Rating:	_____
Name:	_____	Rating:	_____

Comments:

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7. With which aspect(s) of this company's services are you most satisfied?

Comments:

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8. With which aspect(s) of this company's services are you least satisfied?

Comments:

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9. Would you recommend this company's services to your organization again?

Comments:

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## **APPENDIX IV**

### **DBE PARTICIPATION FORM**

(REMOVE THIS FORM AND USE THE NEXT FORM IF COST IS ESTIMATED TO BE OVER 300K)  
**IDENTIFICATION OF MWBE PARTICIPATION FOR INFORMAL CONTRACTS**

This Identification of DBE Participation Form is for the purpose of capturing information regarding the utilization of DBEs and other subcontractors and suppliers on Informal City Contracts. DBE participation is encouraged for all City of Raleigh contracting opportunities. Please refer to the City's DBE Policy for any contract specific requirements. *Copy this Form as needed.*

<b>COMPANY NAME</b>			
<b>PROJECT NAME</b>			
<b>PROJECT NUMBER</b>		<b>CITY DEPARTMENT</b>	
<b>CONTRACT TYPE</b>	<input type="checkbox"/> Services <input type="checkbox"/> Other _____ *		
<input type="checkbox"/> <b>PRIME IS DBE</b>	Classification: _____ " Certified with NCHUB " Certified with NCDOT-DBE	<b>RFP SUBMITTAL DATE</b>	

\*DBE Classifications:

American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

☐ **WORK TO BE SELF-PERFORMED**

Check this box **only** if you intend to perform 100% of the work for this Contract with your own current work forces, and you normally perform and have the capability to perform all elements of this work for this Contract with your own current work forces.

#### DBE SUBCONTRACTORS

Complete the chart below for all DBE subcontractors that you intend to use for this Contract regardless of dollar amount.

Company Name	DBE Classification*	Description of Services	Percentage of Total Contract	Total Projected Utilization (\$)

\*DBE Classifications:

American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

**Total Estimated DBE Utilization\***

\$ \_\_\_\_\_

**Total Proposal Amount\***

\$ \_\_\_\_\_

**Percent Estimated DBE Utilization\***

\_\_\_\_\_ %

(Total Estimated DBE Utilization divided by Total Bid Amount)

## **APPENDIX V**

### **CONTRACT STANDARD TERMS AND CONDITIONS**

The contract terms provided herein shall become a part of any contract issued as a result of this solicitation. Any exceptions to the contract terms must be stated in the submittal. Any submission of a proposal without objection to the contract terms indicates understanding and intention to comply with the contract terms. If there is a term or condition that the firm intends to negotiate, it must be stated in the proposal. The successful firm will not be entitled to any changes or modifications unless they were first stated in the proposal. The City of Raleigh reserves the right, at its sole discretion, to reject any or all submittal package(s) containing unreasonable objections to standard City of Raleigh contract provisions.

1. **Compensation; Time of Payment**

The standard City of Raleigh payment term is NET 30 days from the date of invoice. For prompt payment all invoices should be emailed to ([accountspayable@raleighnc.gov](mailto:accountspayable@raleighnc.gov)) or mail to the City of Raleigh, Accounts Payable, PO Box 590, Raleigh, North Carolina 27602-0590. All invoices must include the Purchase Order Number. Invoices submitted without the correct purchase order number will result in delayed payment.

2. **Workmanship and Quality of Services**

All work performed under this Contract shall be performed in a workmanlike and professional manner, to the reasonable satisfaction of the City, and shall conform to all prevailing industry and professional standards.

3. **Non-discrimination**

To the extent permitted by North Carolina law, the Parties for themselves, their agents, officials, directors, officers, members, representatives, employees, and contractors agree not to discriminate in any manner or in any form based on actual or perceived age, mental or physical disability, sex, religion, creed, race, color, sexual orientation, gender identity or expression, familial or marital status, economic status, veteran status or national origin in connection with this Contract or its performance.

The Parties agree to conform with the provisions and intent of Raleigh City Code §4-1004 in all matters related to this Contract. This provision is incorporated into the Contract for the benefit of the City of Raleigh and its residents and may be enforced by an action for specific performance, injunctive relief, or any other remedy available at law or equity. This section shall be binding on the successors and assigns of all parties with reference to the subject matter of the Contract.

4. **Disadvantaged Business Enterprise**

The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

5. Assignment

This Contract may not be assigned without the express written consent of the City.

6. Applicable Law

All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

7. Insurance

Contractor agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this Contract the following coverages and limits. The requirements contained herein, as well as City's review or acceptance of insurance maintained by Contractor is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Contractor under this Contract.

**Commercial General Liability** – Combined single limit of no less than \$1,000,000 each occurrence and \$2,000,000 aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability.

**Automobile Liability** – Limits of no less than \$1,000,000 Combined Single Limit. Coverage shall include liability for Owned, Non-Owned and Hired automobiles. In the event Contractor does not own automobiles, Contractor agrees to maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Auto Liability policy. Automobile coverage is only necessary if vehicles are used in the provision of services under this Contract and/or are brought on a COR site.

**Worker's Compensation & Employers Liability** – Contractor agrees to maintain Worker's Compensation Insurance in accordance with North Carolina General Statute Chapter 97 with statutory limits and employees liability of no less than \$1,000,000 each accident.

**Additional Insured** – Contractor agrees to endorse the City as an Additional insured on the Commercial General Liability, Auto Liability and Umbrella Liability if being used to meet the standard of the General Liability and Automobile Liability. The Additional Insured shall read '**City of Raleigh is named additional insured as their interest may appear**'.

**Certificate of Insurance** – Contractor agrees to provide COR a Certificate of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect, and Certificates of Insurance shall provide a minimum thirty (30) day endeavor to notify, when available, by Contractor's insurer. If Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify the City within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. **The Certificate Holder address should read:**

**City of Raleigh  
Post Office Box 590**

## **Raleigh, NC 27602-0590**

**Umbrella or Excess Liability** – Contractor may satisfy the minimum liability limits required above under an Umbrella or Excess Liability policy. There is no minimum Per Occurrence limit of liability under the Umbrella or Excess Liability, however, the Annual Aggregate limits shall not be less than the highest 'Each Occurrence' limit for required policies. Contractor agrees to endorse City of Raleigh as an 'Additional Insured' on the Umbrella or Excess Liability, unless the Certificate of Insurance states the Umbrella or Excess Liability provides coverage on a 'Follow-Form' basis.

**Professional Liability** – Limits of no less than \$1,000,000 each claim. This coverage is only necessary for professional services such as engineering, architecture or when otherwise required by the City.

All insurance companies must be authorized to do business in North Carolina and be acceptable to the City of Raleigh's Risk Manager.

### **8. Indemnity**

Except to the extent caused by the sole negligence or willful misconduct of the City, the Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including all claims, costs (including defense) and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Contract, and from any and all claims, costs (including defense) and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Contractor in the performance of this Contract. This representation and warranty shall survive the termination or expiration of this Contract.

The Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including claims, costs (including defense) and expenses, on account of any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Contract.

### **9. Intellectual Property**

Any information, data, instruments, documents, studies, reports or deliverables given to, exposed to, or prepared or assembled by the Contractor under this Contract shall be kept as confidential proprietary information of the City and not divulged or made available to any individual or organization without the prior written approval of the City. Such information, data, instruments, documents, studies, reports or deliverables will be the sole property of the City and not the Contractor.

All intellectual property, including, but not limited to, patentable inventions, patentable plans, copyrightable works, mask works, trademarks, service marks and trade secrets invented, developed, created or discovered in performance of this Contract shall be the property of the City.

Copyright in and to any copyrightable work, including, but not limited to, copy, art, negatives, photographs, designs, text, software, or documentation created as part of

the Contractor's performance of this project shall vest in the City. Works of authorship and contributions to works of authorship created by the Contractor's performance of this project are hereby agreed to be 'works made for hire' within the meaning of 17 U.S.C. 201.

10. Force Majeure

Except as otherwise provided in any environmental laws, rules, regulations or ordinances applicable to the parties and the services performed under this Contract, neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by an act of war, hostile foreign actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Either party to the Contract must take reasonable measures and implement reasonable protections when a weather event otherwise defined as a force majeure event is forecast to be eligible to be excused from the performance otherwise required under this Contract by this provision.

11. Advertising

The Contractor shall not use the existence of this Contract, or the name of the City of Raleigh, as part of any advertising without the prior written approval of the City.

12. Acknowledgement of City Brand and Tree Logo Ownership and Restrictions

The City of Raleigh has developed proprietary branding (the "City Brand") centered around the Raleigh tree mark logo (the "Tree Logo"). The City's exclusive rights and ownership in and to the Tree Logo are protected under trademark and copyright, including U.S. Copyright Reg. No. VAu1-322-896, N.C. State Trademark Registration Reg. No. T-23070 and Federal Trademark Registration Reg. No. 5,629,347, as well as under other federal and state laws.

Contractor acknowledges and understands that the City is not conferring any license to Contractor under this Agreement to use or depict the Tree Logo or other aspects of the City Brand.

Contractor shall not make any use or depiction of the Tree Logo or other aspects of the City Brand without the prior express written approval of the City. In this regard, should any materials being produced by Contractor for the City under this Agreement contemplate use or depiction of the Tree Logo, including, but not limited to, printed materials, digital media, signage and/or display materials, Contractor shall proceed under the auspices and direction of the City's Communications Department and shall comply with all guidelines and restrictions governing use or depiction of the Tree Logo.

13. Communications

If communications to the public and/or City employees are required as part of the Contractor's scope of work under this Contract, then the Contractor shall work with the City in the development of a communications plan ("Communications Plan") that must first be approved by the City in writing before any such communications are delivered to the public and/or City employees.

For purposes of this Section 13, such written approval by the City shall be provided by electronic mail by the applicable City Communications Department employee who is responsible for reviewing and approving the Communications Plan, such electronic mail

to be sent to the electronic mail address listed in Section 5, above, as part of the contact information for the Contractor representative identified in Section 5, above.

Among other things, the Communications Plan must establish whether the City or the Contractor will be responsible for sending any such communications to the public and/or City employees as required either by this Contract or the Communications Plan. The Communications Plan also shall include, but not be limited to, communications objectives, target audience, and deliverables (print, video, website, social, direct, or digital). The Contractor shall comply with the Communications Plan when communicating to the public and/or City employees pursuant to this Contract and the Communications Plan. All such communications shall comply with the City's brand and communications guidelines, as the same may be amended or modified from time to time.

The City's current brand and communications guidelines are incorporated into this Contract by reference and can be found on the City's website here: <https://raleighnc.gov/doing-business/city-brand-guidance-vendors>.

For purposes of this Section 13, "Communications" is defined as any public or City employee facing information presented in channels such as, but not limited to, a website, mobile applications, social media, printed materials, vehicles, billboards, and videos.

a. Communications Plan Approval:

Any materials, messaging or outreach from the Contractor related to marketing and communications of any service or effort under this Contract must first be reviewed and approved by the City's Communications Department. This is to ensure that the Communications Plan: (i) complies with the City's brand and communication guidelines; (ii) integrates with the City's other communications channels and digital strategy; (iii) meets accessibility guidelines; and (iv) conforms to communications best practices with respect to general user experience.

b. Accessibility Requirements:

For web content that the Contractor is to make accessible to the public and/or City employees as part of an approved Communications Plan that is included in the Contractor's scope of work under this Contract, all web materials including, but not limited to, tools, mobile applications, and websites, generated by, or on behalf of, the Contractor must meet at least the mid-range conformance level, AA compliance of the current Web Content Accessibility Guidelines, as the same may be amended from time to time.

Any such web content generated by, or on behalf of the Contractor, as part of a Communications Plan associated with this Contract shall meet all standards of good cognitive web accessibility, which include the following:

- i. Using proper headings and lists
- ii. Using unique links
- iii. Using alternative text and captions



- iv. Using more white space
- v. Dividing content into more manageable pieces
- vi. Making forms manageable by breaking them into multiple, sequential steps
- vii. Providing a logical reading order
- viii. Being consistent with fonts, colors and locations of page elements
- ix. Offering keyboard access
- x. Offering content in multiple formats
- xi. Understanding minimum contrast

c. Languages:

Digital sites/ tools that are for public use/consumption, including for use by City employees, under a Communications Plan associated with this Contract must have translation module (e.g., G-translate, Weglot) so that the service is available in all languages. At minimum, Spanish translation is required on all such digital sites/tools based on low English proficiency requirements:

- i. In most cases, entities that are recipients of federal financial assistance through U.S. Department of Health and Human Services (HHS) must provide language assistance services in order to comply with their legal obligation to take reasonable steps to ensure meaningful access to their programs by persons with [Limited English Proficiency \(LEP\)](#).

d. Content:

For any communications content that the Contractor is required to generate, or have generated, as part of its scope of work under this Contract, the Contractor shall send such content to City Communications Department staff in raw, high-resolution format for inclusion in communications materials to be made accessible to the public and/or City employees as set forth in the Communications Plan that arises from this Contract (i.e., websites, mobile applications, printed materials collateral, and social media). PDF attachments shall be used only as a last resort and only after written approval by the City, with such written approval to be provided by the City in electronic mail format as described elsewhere in this Section 13.

- i. Contractor shall only provide to the City communications materials for which the City has rights to use, with written documentation of such use rights being provided to the City as requested from time to time by the City in its sole discretion.

- ii. All working files agreed upon for the specific Communications Plan shall be provided to the City Communications Department, i.e., text, graphics, charts and data, infographics, and original native files such as Illustrator, Excel, ArcGIS, etc. Following are the file format specifications:

1. Images: At least 300dpi for printing at actual size; 96dpi and at least 1920x1080px for digital/Web.
2. Video: Any video should be no less than Standard HD (1920x1080) but preferable 4k.
3. Text: Word document using accessibility best practices (heading structure, table of contents, and tables).

14. Cancellation

The City may terminate this Contract at any time by providing thirty (30) days written notice to the Contractor. In addition, if Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract for any reason, including the voluntary or involuntary declaration of bankruptcy, the City shall have the right to terminate this Contract by giving written notice to the Contractor and termination will be effective upon receipt. Contractor shall cease performance immediately upon receipt of such notice.

In the event of early termination, Contractor shall be entitled to receive just and equitable compensation for costs incurred prior to receipt of notice of termination and for the satisfactory work completed as of the date of termination and delivered to the City. Notwithstanding the foregoing, in no event will the total amount due to Contractor under this section exceed the total amount due Contractor under this Contract. The Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract, and the City may withhold any payment due to the Contractor for the purpose of setoff until such time as the City can determine the exact amount of damages due the City because of the breach.

Payment of compensation specified in this Contract, its continuation or any renewal thereof, is dependent upon and subject to the allocation or appropriation of funds to the City for the purpose set forth in this Contract.

15. Laws/Safety Standards

The Contractor shall comply with all laws, ordinances, codes, rules, regulations, safety standards and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization, such as the American Society of Mechanical Electrical Engineers for pressure vessels; the Underwriters' Laboratories and/or National Electrical Manufacturers' Association for electrically operated assemblies; or the

American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type(s) of devices offered and furnished. Further, all items furnished by the Contractor shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

Contractor must comply with *North Carolina Occupational Safety and Health Standards for General Industry 13 NCAC 07F (29CFR 1910)*. In addition, Contractor shall comply with all applicable occupational health and safety and environmental rules and regulations.

Contractor shall effectively manage their safety and health responsibilities including:

a. Accident Prevention

Prevent injuries and illnesses to their employees and others on or near their job site. Contractor managers and supervisors shall ensure personnel safety by strict adherence to established safety rules and procedures.

b. Environmental Protection

Protect the environment on, near, and around their work site by compliance with all applicable environmental regulations.

c. Employee Education and Training

Provide education and training to all contractors employees before they are exposed to potential workplace or other hazards as required by specific OSHA Standards.

16. Applicability of North Carolina Public Records Law

Notwithstanding any other provisions of this Contract, this Contract and all materials submitted to the City by the Contractor are subject to the public records laws of the State of North Carolina and it is the responsibility of the Contractor to properly designate materials that may be protected from disclosure as trade secrets under North Carolina law as such and in the form required by law prior to the submission of such materials to the City. Contractor understands and agrees that the City may take any and all actions necessary to comply with federal, state, and local laws and/or judicial orders and such actions will not constitute a breach of the terms of this Contract. To the extent that any other provisions of this Contract conflict with this paragraph, the provisions of this section shall control.

17. Miscellaneous

The Contractor shall be responsible for the proper custody and care of any property furnished or purchased by the City for use in connection with the performance of this Contract and will reimburse the City for the replacement value of its loss or damage.

The Contractor shall be considered to be an Independent Contractor and as such shall be wholly responsible for the work to be performed and for the supervision of its employees. Nothing herein is intended or will be construed to establish any agency, partnership, or joint venture. Contractor represents that it has, or will secure at its own expense, all personnel required in performing the services under this Contract. Such

employees shall not be employees of or have any individual contractual relationship with the City.

This Contract may be amended only by written agreement of the parties executed by their authorized representatives.

18. Right to Audit and Access to Records

- a. The City may conduct an audit of any services performed and fees paid subject to this Contract. The City, or its designee, may perform such an audit throughout the contract period and for three (3) years after termination thereof or longer if otherwise required by law.
- b. The Contractor and its agents shall maintain all books, documents, papers, accounting records, contract records and such other evidence as may be appropriate to substantiate costs incurred under this Contract. The City, or its designee, shall have the right to, including but not limited to: review and copy records; interview current and former employees; conduct such other investigation to verify compliance with contract terms; and conduct such other investigation to substantiate costs incurred by this Contract.
- c. "Records" shall be defined as data of every kind and character, including but not limited to books, documents, papers, accounting records, contract documents, information, and materials that, in the City's sole discretion, relate to matters, rights, duties or obligations of this Contract.
- d. Records and employees shall be available during normal business hours upon advanced written notice. Electronic mail shall constitute written notice for purposes of this section.
- e. Contractor shall provide the City or its designee reasonable access to facilities and adequate and appropriate workspace for the conduct of audits.
- f. The rights established under this section shall survive the termination of the Contract, and shall not be deleted, circumvented, limited, confined, or restricted by contract or any other section, clause, addendum, attachment, or the subsequent amendment of this Contract.
- g. The Contractor shall reimburse the City for any overcharges identified by the audit within ninety (90) days of written notice of the City's findings.
- h. Contractor shall, upon request, provide any records associated with this engagement to the North Carolina State Auditor that are necessary to comply with the provisions of G.S. § 147-64.7.

19. E – Verify

Contractor shall comply with E-Verify, the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law and as in accordance with N.C.G.S. § 64-25 et seq.

In addition, to the best of Contractor's knowledge, any subcontractor employed by Contractor as a part of this contract shall be in compliance with the requirements of E-Verify and N.C.G.S. § 64-25 et seq.

20. Iran Divestment Act Certification

Contractor certifies that, as of the date listed below, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. § 147-86.55, *et seq.* In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 147-86.59, Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.

21. Companies Boycotting Israel Divestment Act Certification

Contractor certifies that it has not been designated by the North Carolina State Treasurer as a company engaged in the boycott of Israel pursuant to N.C.G.S. § 147-86.81.

## **APPENDIX VI**

### **EXCEPTIONS TO THE RFP**

#### **CHECK ONE:**

- ☐ NO EXCEPTIONS, PROPOSER COMPLIES WITH ALL DOCUMENTS IN RFP.  
☐ EXCEPTIONS ARE LISTED BELOW:

#	RFP Page #, Section, Name, Title, Item #	Exceptions (Describe nature of Exception)	Explain Why This is an Issue	Proposed Alternative	Indicate if exception is Negotiable (N), or Non-negotiable (NN)
1					
2					
3					
4					
5					
6					
7					
8					

9					
10					
11					
12					
<p><b>FAILURE TO IDENTIFY ANY EXCEPTIONS WILL INDICATE ACCEPTANCE OF ALL TERMS AND CONDITIONS, AND REQUIREMENTS OF THE RFP AND ANY CORRESPONDING ADDENDUM ISSUED. THE CITY, AT ITS SOLE DISCRETION, MAY MODIFY OR REJECT ANY EXCEPTION OR PROPOSED CHANGE.</b></p>					
Firm:			Authorized Signature:		Title:
Printed Name of Signer:			Date:		

# **FEDERAL AND STATE REQUIREMENTS AND SPECIAL CONDITIONS**

*for CONSTRUCTION*

## **1. General**

The work performed under this contract will be financed, in part, by grants provided under programs of the Federal Transit Administration. Citations to federal law, regulation, and guidance references include, but are not limited to, the Master Agreement, FTA MA (23), dated October 1, 2016; FTA Circular 4220.1F, dated November 1, 2008; "Best Practices Procurement & Lessons Learned Manual", October 2016; Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, dated December 26, 2014, will supersede and apply in lieu of U.S. DOT's common grant rules, 49 C.F.R. parts 18 and 19, State and Local Governments and Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations and any subsequent amendments or revisions thereto.

**4.1.1 THE FOLLOWING MAY BE USED  
SYNONYMOUSLY: "BIDDER" AND  
"CONTRACTOR"**

**"PURCHASER", PROCURING AGENCY" AND "OWNER"**

## **2. Federal Changes**

Contractor shall at all times comply with all applicable Federal Transit Administration (FTA) regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

1. FTA's new authorizing legislation, 49 U.S.C. chapter 53, as amended, by the following:

- a. The Fixing America's Surface Transportation (FAST) Act, Public Law No. 114-94, December 4, 2015,
- b. The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), Public Law No. 112-141, July 6, 2012, as amended by the "Surface Transportation and Veterans Health Care Choice Improvement Act of 2015," Public Law No. 114-41, July 31, 2015, and other authorizing legislation to be enacted and
- c. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Public Law No. 109-59, August 10, 2005, as amended by the SAFETEA-LU technical Corrections Act of 2008, Public Law No 100-244, June 6, 2008.



2. Continuing resolutions or other Appropriations Resolutions or Acts funding the Department of Transportation during Fiscal Year 2016.
3. Title 23, U.S.C. (Highways)
4. Other federal legislation FTA administers, as FTA so determines.

### 3. **Notification of Federal Participation**

To the extent required by Federal law, the State of North Carolina agrees that, in administering any Federal assistance Program or Project supported by the underlying Grant Agreement or Cooperative Agreement, any request for proposals, solicitation, grant application, form, notification, press release, or other publication involving the

distribution of FTA assistance for the Program or the Project that it will identify the FTA grant source by listing the Catalog of Federal Domestic Assistance Number of the program. The following FTA grant programs will be eligible to participate in this bid, 20.500, 20.505, 20.507, 20.509, 20.513, 20.514, 20.516, 20.518, 20.519, 20.521,

20.522, 20.523, 20.525, 20.526, 20.527, 20.528, 20.529, 20.530, and 20.531. Federal funding assistance up to eighty (80%) percent may be provided.

### 4. **Definitions**

*Third Party Agreement*, in accordance with the Master Agreement unless FTA determines otherwise in writing, includes all of the following agreements, such as:

- (1) Third party contracts,
- (2) Leases,
- (3) Third party subcontracts; and
- (4) Other similar arrangements or agreements.

*Third Party Participant*, in accordance with the Master Agreement unless FTA determines otherwise in writing, includes all of the following participants, such as:

- (1) Third party contractors,
- (2) Lessees,
- (3) Third party subcontractors, and
- (4) Other participants in the Project

### 5. **Conflict of Interest**

No employee, officer, board member, or agent of the Owner shall participate in the selection, award, or administration of a contract supported by Federal Transit Administration (FTA) funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the employee, officer, board member, or agent, any member of his or her immediate family, his or her partner, or an organization that employs, or is about to employ any of the above, has a financial or other interest in the firm selected for award.

## 6. **Lobbying**

Byrd Anti-Lobbying Amendment, 31 U.S.C. §1352(b) (5), as amended by the Lobbying Disclosure Act of 1995, PL 104-65 (2 U.S.C. §1601, et seq.); 2 C.F.R. §200.450, and 2

C.F.R. Part 200 appendix II (j). Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR Part 20, “New Restrictions on Lobbying.” Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S. C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

- 4.1.1.1 The requisite “Lobbying Certification” is included as ATTACHMENT A (attach Standard Form-LLL if necessary) and must be executed for contracts of \$100,000 or more and prior to the award of the contract.

## 7. **Contracting with Disadvantaged Business Enterprises**

The newest version on the United States Department of Transportation’s (DOT) Disadvantaged Business Enterprise (DBE), 49 C.F.R. Part 26, became effective October 1, 2004, all amendments thereto.

The **Procuring Agency** must meet the maximum feasible portion of their overall goal using race-neutral methods. Where appropriate, however, **Procuring Agencies** are responsible for establishing DBE contract goals on individual DOT-assisted contracts. **Procuring Agencies** may use contract goals only on those DOT-assisted contracts that have subcontracting responsibilities. See 49 C.F.R. § 26.51(e). Furthermore, while **Procuring Agencies** are not required to set a contract goal on every DOT-assisted contract, they are responsible for achieving their overall program goals by administering their DBE program in good faith.

The DBE contracting requirements flow down to all third party contractors and their contracts at every tier. It is the **Procuring Agency’s** and prime contractor’s responsibility to ensure the DBE requirements are applied across the board to all contractors/subcontractors. Should a subcontractor fail to comply with the DBE regulations, FTA would look to the **Procuring Agency** to make sure it intervenes to monitor compliance. The onus for compliance is on the **Procuring Agency**.

### 4.1.2 Clause Language

For all DOT-assisted contracts, each **Procuring Agency** must include assurances that third party contractors will comply with the DBE program requirements of 49 C.F.R. Part 26, when applicable. The following contract clause is required in all DOT-assisted prime and subcontracts:

The contractor 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 C.F.R. 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 **Procuring Agency**, 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 49 C.F.R. § 26.13(b).

Further, **Procuring Agencies** must establish a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment the **Procuring Agency** makes to the prime contractor (49 C.F.R. § 26.29(a)).

Finally, for contracts with defined DBE contract goals, each **Procuring Agency** must include in each prime contract a provision stating that the contractor shall utilize the specific DBEs listed unless the contractor obtains the recipient's written consent; and that, unless the **Procuring Agency's** consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE (49 C.F.R. § 26.53(f) (1)).

As an additional resource, **Procuring Agencies** can draw on the following language for inclusion in their federally funded procurements.

#### 4.1.3 Overview

It is the policy of the NCDOT, the PROCURING AGENCY, and the United States Department of Transportation ("DOT") that Disadvantaged Business Enterprises ("DBE's"), as defined herein and in the Federal regulations published at 49 C.F.R. Part 26, shall have an equal opportunity to participate in DOT-assisted contracts. It is also the policy of the NCDOT and/or the PROCURING AGENCY to:

1. Ensure nondiscrimination in the award and administration of DOT-assisted contracts;
2. Create a level playing field on which DBE's can compete fairly for DOT-assisted contracts;
3. Ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. Ensure that only firms that fully meet 49 C.F.R. part 26 eligibility standards are permitted to participate as DBE's;
5. Help remove barriers to the participation of DBEs in DOT assisted contracts;
6. To promote the use of DBEs in all types of federally assisted contracts and procurement activities; and
7. Assist in the development of firms that can compete successfully in the marketplace outside the DBE program.

This Contract is subject to 49 C.F.R. Part 26. Therefore, the Contractor must satisfy the requirements for DBE participation as set forth herein. These requirements are in addition to all other equal opportunity employment requirements of this Contract. The NCDOT and/or the PROCURING AGENCY shall make all determinations with regard to whether or not a Bidder/Offeror is in compliance with the requirements stated herein. In assessing compliance, the NCDOT and/or the PROCURING AGENCY may consider during its review of the

Bidder/Offeror's submission package, the Bidder/Offeror's documented history of non-compliance with DBE requirements on previous contracts with the NCDOT and/or the PROCURING AGENCY.

#### 4.1.4 Contract Assurance

The Contractor 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 C.F.R. 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 NCDOT and/or the PROCURING AGENCY deems appropriate.

#### 4.1.5 DBE Participation

For the purpose of this Contract, the NCDOT and/or the PROCURING AGENCY will accept only DBE's who are:

1. Certified, at the time of bid opening or proposal evaluation, by the [*certifying agency or the Unified Certification Program (UCP)*]; or
2. An out-of-state firm who has been certified by either a local government, state government or Federal government entity authorized to certify DBE status or an agency whose DBE certification process has received FTA approval; or
3. Certified by another agency approved by the NCDOT.

#### 4.1.6

#### 4.1.7 DBE Participation Goal

The City of Raleigh Transportation Department/Transit Division's overall goal for DBE participation is 13%.

The DBE participation goal for this construction Contract is set at 13%. This goal represents those elements of work under this Contract performed by qualified Disadvantaged Business Enterprises for amounts totaling **not less than 13%** of the total Contract price. Failure to meet the stated goal at the time of proposal submission **may** render the Bidder/Offeror non-responsive.

#### 4.1.8 Proposed Submission

Each Bidder/Offeror, as part of its submission, shall supply the following information:

1. A completed **DBE Utilization Form** (see below) that indicates the percentage and dollar value of the total bid/contract amount to be supplied by Disadvantaged Business Enterprises under this Contract.
2. A list of those qualified DBE's with whom the Bidder/Offeror intends to contract for the performance of portions of the work under the Contract, the agreed price to be paid to each DBE for work, the Contract items or parts to be performed by each DBE, a proposed timetable for the performance or delivery of the Contract item, and other information as required by the **DBE Participation Schedule** (see below). No work shall be included in

the Schedule that the Bidder/Offeror has reason to believe the listed DBE will subcontract, at any tier, to other than another DBE. If awarded the Contract, the Bidder/Offeror may not deviate from the DBE Participation Schedule submitted in response to the bid. Any subsequent changes and/or substitutions of DBE firms will require review and written approval by the NCDOT and/or the PROCURING AGENCY.

3. An original **DBE Letter of Intent** (see below) from each DBE listed in the **DBE Participation Schedule**.
4. An original **DBE Affidavit** (see below) from each DBE stating that there has not been any change in its status since the date of its last certification.

#### **4.1.9 Good Faith Efforts**

If the Bidder/Offeror is unable to meet the goal set forth above (DBE Participation Goal), the NCDOT and/or the PROCURING AGENCY will consider the Bidder/Offeror's documented good faith efforts to meet the goal in determining responsiveness. The types of actions that the NCDOT and/or the PROCURING AGENCY will consider as part of the Bidder/Offeror's good faith efforts include, but are not limited to, the following:

1. Documented communication with the NCDOT and/or the PROCURING AGENCY's DBE Coordinator (questions of IFB or RFP requirements, subcontracting opportunities, appropriate certification, will be addressed in a timely fashion);
2. Pre-bid meeting attendance. At the pre-bid meeting, the NCDOT and/or the PROCURING AGENCY generally informs potential Bidder/Offeror's of DBE subcontracting opportunities;
3. The Bidder/Offeror's own solicitations to obtain DBE involvement in general circulation media, trade association publication, minority-focus media and other reasonable and available means within sufficient time to allow DBEs to respond to the solicitation;
4. Written notification to DBE's encouraging participation in the proposed Contract; and
5. Efforts made to identify specific portions of the work that might be performed by DBE's.

The Bidder/Offeror shall provide the following details, at a minimum, of the specific efforts it made to negotiate in good faith with DBE's for elements of the Contract:

1. The names, addresses, and telephone numbers of DBE's that were contacted;
2. A description of the information provided to target DBE's regarding the specifications and bid proposals for portions of the work;
3. Efforts made to assist DBE's contacted in obtaining bonding or insurance required by the Bidder or the Authority.

Further, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted when a non-DBE subcontractor was selected over a DBE for work on the contract (49 C.F.R. § 26.53(b) (2) (VI)).

In determining whether a Bidder has made good faith efforts, the NCDOT and/or the PROCURING AGENCY may take into account the performance of other Bidders in meeting the Contract goals. For example, if the apparent successful Bidder failed to meet the goal, but meets or exceeds the average DBE participation obtained by other Bidders, the NCDOT and/or the PROCURING AGENCY may view this as evidence of the Bidder having made good faith efforts.

#### **4.1.10 Administrative Reconsideration**

Within five (5) business days of being informed by the NCDOT and/or the PROCURING AGENCY that it is not responsive or responsible because it has not documented sufficient good faith efforts, the Bidder/Offeror may request administrative reconsideration. The Bidder should make this request in writing to the NCDOT and/or the PROCURING AGENCY's Administrative Contact. The Administrative Contact will forward the Bidder/Offeror's request to a reconsideration official who will not have played any role in the original determination that the Bidder/Offeror did not document sufficient good faith efforts.

As part of this reconsideration, the Bidder/Offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The Bidder/Offeror will have the opportunity to meet in person with the assigned reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. The NCDOT and/or the PROCURING AGENCY will send the Bidder/Offeror a written decision on its reconsideration, explaining the basis for finding that the Bidder/Offeror did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department of Transportation.

#### **4.1.11 Termination of DBE Subcontractor**

The Contractor shall not terminate the DBE subcontractor(s) listed in the **DBE Participation Schedule** (see below) without the NCDOT and/or the PROCURING AGENCY's prior written consent. The NCDOT and/or the PROCURING AGENCY may provide such written consent only if the Contractor has good cause to terminate the DBE firm. Before transmitting a request to terminate, the Contractor shall give notice in writing to the DBE subcontractor of its intent to terminate and the reason for the request. The Contractor shall give the DBE five days to respond to the notice and advise of the reasons why it objects to the proposed termination. When a DBE subcontractor is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make good faith efforts to find another DBE subcontractor to substitute for the original DBE and immediately notify the NCDOT and/or the PROCURING AGENCY in writing of its efforts to replace the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the Contract as the DBE that was terminated, to the extent needed to meet the Contract goal established for this procurement. Failure to comply with these requirements will be in accordance with Section 8 below (Sanctions for Violations).

#### **4.1.12 Continued Compliance**

The NCDOT and/or the PROCURING AGENCY shall monitor the Contractor's DBE compliance during the life of the Contract. In the event this procurement exceeds ninety

**(90) days, it will be the responsibility of the Contractor to submit quarterly written reports to the NCDOT and/or the PROCURING AGENCY that summarize the total DBE value for this Contract.** These reports shall provide the following details:

- DBE utilization established for the Contract;
- Total value of expenditures with DBE firms for the quarter;

- The value of expenditures with each DBE firm for the quarter by race and gender;
- Total value of expenditures with DBE firms from inception of the Contract; and
- The value of expenditures with each DBE firm from the inception of the Contract by race and gender.

Reports and other correspondence must be submitted to the DBE Coordinator with copies provided to the NCDOT and/or the PROCURING AGENCY and any other named person by NCDOT and/or the PROCURING AGENCY. Reports shall continue to be submitted quarterly until final payment is issued or until DBE participation is completed.

The successful Bidder/Offeror shall permit:

- The NCDOT and/or the PROCURING AGENCY to have access to necessary records to examine information as the NCDOT and/or the PROCURING AGENCY deems appropriate for the purpose of investigating and determining compliance with this provision, including, but not limited to, records of expenditures, invoices, and contract between the successful Bidder/Offeror and other DBE parties entered into during the life of the Contract.
- The authorized representative(s) of the NCDOT and/or the PROCURING AGENCY, the U.S. Department of Transportation, the Comptroller General of the United States, to inspect and audit all data and record of the Contractor relating to its performance under the Disadvantaged Business Enterprise Participation provision of this Contract.
- All data/record(s) pertaining to DBE shall be maintained as stated in Section 29.

#### **4.1.13 Sanctions for Violations**

If at any time the NCDOT and/or the PROCURING AGENCY has reason to believe that the Contractor is in violation of its obligations under this Agreement or has otherwise failed to comply with terms of this Section, the NCDOT and/or the PROCURING AGENCY may, in addition to pursuing any other available legal remedy, commence proceedings, which may include but are not limited to, the following:

- Suspension of any payment or part due the Contractor until such time as the issues concerning the Contractor's compliance are resolved; and
- Termination or cancellation of the Contract, in whole or in part, unless the successful Contractor is able to demonstrate within a reasonable time that it is in compliance with the DBE terms stated herein.

#### **4.1.14 DBE UTILIZATION FORM**

The undersigned Bidder/Offeror has satisfied the requirements of the solicitation in the following manner (please check the appropriate space):

\_\_\_\_\_ The Bidder/Offer is committed to a minimum of \_\_\_\_\_% DBE utilization on this contract.

\_\_\_\_\_ The Bidder/Offeror (if unable to meet the DBE goal of 13%) is committed to a minimum of \_\_% DBE utilization on this contract and submits documentation demonstrating good faith efforts.

#### **4.1.15 DBE PARTICIPATION SCHEDULE**

The Bidder/Offeror shall complete the following information for all DBE's participating in the contract that comprises the DBE Utilization percent stated in the DBE Utilization Form. The Bidder/Offeror shall also furnish the name and telephone number of the appropriate contact person should the NCDOT and/or the PROCURING AGENCY has any questions in relation to the information furnished herein.

#### **4.1.16 DBE IDENTIFICATION AND INFORMATION FORM**

<b>Name and Address</b>	<b>Contact Name and Telephone Number</b>	<b>Participation Percent (Of Total Contract Value)</b>	<b>Description Of Work To Be Performed</b>	<b>Race and Gender of Firm</b>

### **8. Civil Rights Laws and Regulations**

The following Federal Civil Right laws and regulations apply to all contracts and flow down to all third party contractors and their contracts at every tier.

(1) **Nondiscrimination** - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., section 202 of the Americans with Disabilities Act of 1990, 42

U.S.C. § 12101, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex (including gender identity), disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

(a) The third party contractor and all lower tiers shall comply with all provisions of FTA Circular 4702.1 "Title VI Requirements and Guidelines for Federal Transit Administration



Recipients”, issued October 1, 2012.

**(2) Equal Employment Opportunity** - Federal Equal Employment Opportunity (EEO) Requirements include, but are not limited to:

(a) Race, Color, Religion, National Origin, Disability, Age, Sexual Origin, Gender Identity, or Status as a Parent - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, Title VI of the Civil Rights Act, 28 C.F.R. § 50.3, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract 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 Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note, and as further amended by Executive Order 13672, "Further Amendments to Executive Order 11478, Equal Employment Opportunity in the Federal Government, and Executive Order 11246, Equal Employment Opportunity," July 21, 2014, and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, sex (including gender identity), disability, 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. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue. The Contractor agrees to comply with FTA Circular 4704.1A Equal Employment Opportunity (EEO) Requirements and Guidelines for Federal Transit Administration Recipients, dated October 31, 2016.

(b) Equal Employment Opportunity Requirements for Construction Activities. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

**(3) Nondiscrimination on the Basis of Age** – The Contractor agrees to comply with all applicable requirements of the Age Discrimination Act of 1975, as amended, 42 U.S.C. §§ 6101 *et seq.*, and with implementing U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance, 45 C.F.R. Part 90, which prohibit discrimination against individuals on the basis of age.

The Age Discrimination in Employment Act (ADEA) 29 U.S.C. §§ 621 through 634 and with implementing U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. Part 1625, which prohibits discrimination against individuals on the basis of age.

(4) **Nondiscrimination on the Basis of Sex** - The Contractor agrees to comply with all applicable requirements of Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. §§ 1681 *et seq.*, and with implementing U.S. DOT regulations, “Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance,” 49 C.F.R. Part 25, that prohibit discrimination on the basis of sex.

(5) **Access for Individuals with Disabilities** - The Contractor agrees to comply with 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities. The Contractor also agrees to comply with all applicable provisions of section 504 of the Rehabilitation Act of 1973, as amended, with 29 U.S.C. § 794, which prohibits discrimination on the basis of disability; with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 *et seq.*, which requires that accessible facilities and services be made available to individuals with disabilities; and with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 *et seq.*, which requires that buildings and public accommodations be accessible to individuals with disabilities. In addition, the Contractor agrees to comply with applicable Federal regulations and directives and any subsequent amendments thereto, except to the extent the Federal Government determines otherwise in writing, as follows:

- (1) U.S. DOT regulations “Transportation Services for Individuals with Disabilities (ADA)” 49 C.F.R. Part 37;
- (2) U.S. DOT regulations “Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance,” 49 C.F.R. Part 27;
- (3) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB) U.S. DOT regulations, “Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles,” 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;
- (4) U.S. DOJ regulations “Nondiscrimination on the Basis of Disability in State and Local Government Services,” 28 C.F.R. Part 35;
- (5) U.S. DOJ regulations “Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities,” 28 C.F.R. Part 36;
- (6) U.S. GSA regulations “Accommodations for the Physically Handicapped,” 41 C.F.R. Subpart 101-19;
- (7) U.S. Equal Employment Opportunity Commission, “Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act,” 29 C.F.R. Part 1630;
- (8) U.S. Federal Communications Commission regulations “Telecommunications

Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled,” 49 C.F.R. Part 64, Subpart F;

- (9) U.S. Architectural and Transportation Barriers Compliance Board regulations, “Electronic and Information Technology Accessibility Standards.” 36 C.F.R. Part 1194;
- (10) FTA regulations, "Transportation of Elderly and Handicapped Persons," 49 C.F.R. part 609; and
- (11) Federal regulations, "Miscellaneous Civil Rights Amendments (RRR)," pertaining to nondiscrimination on the basis of disability within 49 C.F.R. Parts 27, 37, and 38 were published in 79 Fed. Reg. 21402, April 16, 2014; and
- (12) FTA Circular 4701.1, Americans with Disabilities Act (ADA) Guidance, dated November 4, 2015.
- (13) Federal civil rights and nondiscrimination directives implementing the foregoing Federal laws and regulations, except to the extent the Federal Government determines otherwise in writing.

(6) **Access to Services for Persons with Limited English Proficiency.** The Contractor agrees to comply with Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d-1 note, and U.S. DOT Notice, "DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Persons," 70 *Fed. Reg.* 74087, December 14, 2005, except to the extent that the Federal Government determines otherwise in writing.

(7) **Environmental Justice.** (According to the Master Agreement, this section is now under Environmental and applicable for Environmental Studies)

(8) **Drug or Alcohol Abuse-Confidentiality and Other Civil Rights Protections.** To the extent applicable, the Contractor agrees to comply with the confidentiality and other civil rights protections of the Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. §§ 1101 *et seq.*, with the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended, 42 U.S.C. §§ 4541 *et seq.*, and with the Public Health Service Act of 1912, as amended, 42 U.S.C. §§ 290dd through 290dd-2, and any amendments thereto.

(9) **Other Nondiscrimination Laws.** The Contractor agrees to comply with applicable provisions of other Federal laws and regulations, and follow applicable directives prohibiting discrimination, except to the extent that the Federal Government determines otherwise in writing.

(10) The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

(11) Remedies for failure to comply with applicable Federal Civil Rights laws and Federal regulations may be enforced as provided in those Federal laws or Federal regulations.

4.1.17

9. **Clean Air Act and Federal Water Pollution Control Act**

The Clean Air and Clean Water Act requirements apply to each contract and subcontract exceeding \$150,000. The Contractor 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) and 2

C.F.R. Part 200, Appendix II (g). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal Assistance provided by FTA.

The Contractor agrees:

- 1) It will not use any violating facilities;
- 2) It will report the use of facilities placed on or likely to be placed on the U.S. EPA “List of Violating Facilities;”
- 3) It will report violations of use of prohibited facilities to FTA; and
- 4) It will comply with the inspection and other requirements of the Clean Air Act, as amended, (42 U.S.C. §§ 7401 – 7671q); and the Federal Water Pollution Control Act as amended, (33 U.S.C. §§ 1251-1387) and 2 C.F.R. Part 200, Appendix II (g).

10. **Energy Conservation**

The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plans issued in compliance with the Energy Policy and Conservation Act, as amended, 42 U.S.C. § 6321 et seq., and perform an energy assessment for any building constructed, reconstructed, or modified with federal assistance as required under FTA regulations, “Requirements for Energy Assessments,” 49 C.F.R. part 622, subpart C. These requirements extend to all third party contractors and their contracts at every tier and subrecipients and their subcontracts at every tier.

11. **Environmental Protection**

The Contractor agrees to comply with all applicable requirements of the National Environmental Policy Act of 1969, as amended, (NEPA) 42 U.S.C. §§ 4321 through 4335 (as restricted by 42 U.S.C. § 5159, if applicable); Executive Order No. 11514, as amended, “Protection and Enhancement of Environmental Quality,” 42 U.S.C. § 4321 note; FTA statutory requirements at 49 U.S.C. § 5323(c)(2) ), as amended by MAP-21, ;

U.S. Council on Environmental Quality regulations pertaining to compliance with NEPA, 40 C.F.R. Parts 1500 through 1508; and joint FHWA FTA regulations, “Environmental Impact and Related Procedures,” 23 C.F.R. Part 771 and 49 C.F.R. Part 622 were published in the Federal Register, 78 Fed. Reg. 8963, February 7, 2013; and other applicable Federal environmental

protection regulations that may be promulgated at a later date. The Contractor agrees to comply with the applicable provisions of 23 U.S.C.

§ 139 “Efficient environmental reviews for project decision making”, pertaining to environmental procedures, and 23 U.S.C. § 326, pertaining to Purchaser’s responsibility for categorical exclusions, in accordance with the provisions of joint FHWA/FTA final guidance, “Environmental Review Process (Public Law 109-59),” 71 Fed. Reg. 66576 *et seq.* November 15, 2006. Joint FHWA and FTA final guidance, “Interim Guidance on MAP-21 Section 1319 Accelerated Decisionmaking in Environmental Reviews,” dated January 14, 2013, and any applicable Federal directives that may be issued at a later date, except to the extent that FTA determines otherwise in writing.

#### **4.1.18**

### **12. Recycled Products**

The Recycled Products requirement applies to all contracts for items designated by the EPA, when the purchaser or contractor procures \$10,000 or more of one of these items during the fiscal year, or has procured \$10,000 or more of such items in the previous fiscal year, using Federal funds. New requirements for "recovered materials" will become effective May 1, 1996. These regulations apply to all procurement actions involving items designated by the EPA, where the procuring agency purchases \$10,000 or more of one of these items in a fiscal year, or when the cost of such items purchased during the previous fiscal year was \$10,000. These requirements extend to all contractors and their subcontracts at every tier where the value of an EPA designated item exceeds

\$10,000.

To the extent possible the contractor agrees to comply with U. S. Environmental Protection Agency (U.S. EPA), “Comprehensive Procurement Guidelines for Products Containing Recovered Materials,” 40 CFR Part 247, which implements section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. 6962 and 2 C.F.R. part § 200.322. The contractor agrees to provide competitive preference for products and services that conserve natural resources, protect the environment and are energy efficient, except to the extent that the Federal Government determines otherwise in writing.

These items include, but may not be limited to:

***Paper and paper products***, excluding building and construction paper grades.

#### **4.1.18.1**

##### **4.1.18.2 Construction products:**

##### **(a) Building insulation products, including the following items:**

- (1) Loose-fill insulation, including but not limited to cellulose fiber, mineral fibers (fiberglass and rock wool), vermiculite, and perlite;
- (2) Blanket and batt insulation, including but not limited to mineral fibers (fiberglass and rock wool);
- (3) Board (sheathing, roof decking, wall panel) insulation, including but not limited to structural fiberboard and laminated paperboard products, perlite composite board, polyurethane, polyisocyanurate, polystyrene, phenolics, and composites; and
- (4) Spray-in-place insulation, including but not limited to foam-in- place polyurethane and polyisocyanurate, and spray-on cellulose.

##### **(b) Structural fiberboard and laminated paperboard products for applications other than building insulation, including building board, sheathing, shingle backer, sound deadening board, roof insulating board, insulating wallboard, acoustical and non-acoustical ceiling tile, acoustical and non-acoustical lay-in panels, floor underlayments,**

- and roof overlay (coverboard).
- (c) Cement and concrete, including concrete products such as pipe and block containing:
    - (1) Coal fly ash;
    - (2) Ground granulated blast furnace slag (GGBF);
    - (3) Cenospheres; or
    - (4) Silica fume from silicon and ferrosilicon metal production.
  - (d) Carpet made from polyester fiber made from recovered materials for use in moderate-wear applications such as single-family housing and similar wear applications.
  - (e) Floor tiles and patio blocks containing recovered rubber or plastic.
  - (f) Shower and restroom dividers/partitions containing recovered plastic or steel.
  - (g) (1) Consolidated latex paint used for covering graffiti; and
    - (2) Reprocessed latex paint used for interior and exterior architectural applications such as wallboard, ceilings, and trim; gutter boards; and concrete, stucco, masonry, wood, and metal surfaces.
  - (h) Carpet cushion made from bonded polyurethane, jute, synthetic fibers, or rubber containing recovered materials.
  - (i) Flowable fill containing coal fly ash and/or ferrous foundry sands.
  - (j) Railroad grade crossing surfaces made from cement and concrete containing fly ash, recovered rubber, recovered steel, recovered wood, or recovered plastic.
  - (k) Modular threshold ramps containing recovered steel, rubber, or aluminum.
  - (l) Nonpressure pipe containing recovered steel, plastic, or cement.
  - (m) Roofing materials containing recovered steel, aluminum, fiber, rubber, plastic or plastic composites, or cement.

#### 4.1.18.3 Transportation products:

- (a) Traffic barricades and traffic cones used in controlling or restricting vehicular traffic.
- (b) Parking stops made from concrete or containing recovered plastic or rubber.
- (c) Channelizers containing recovered plastic or rubber.
- (d) Delineators containing recovered plastic, rubber, or steel.
- (e) Flexible delineators containing recovered plastic.

#### 4.1.18.4 Miscellaneous products:

- (a) Pallets containing recovered wood, plastic, or paperboard.
- (b) Sorbents containing recovered materials for use in oil and solvent clean-ups and as animal bedding.
- (c) Industrial drums containing recovered steel, plastic, or paper.
- (d) Awards and plaques containing recovered glass, wood, paper, or plastic.
- (e) Mats containing recovered rubber and/or plastic.
- (f) (1) Non-road signs containing recovered plastic or aluminum and road signs containing recovered aluminum.
  - (2) Sign supports and posts containing recovered plastic or steel.
- (g) Manual-grade strapping containing recovered steel or plastic.
- (h) Bike racks containing recovered steel or plastic.
- (i) Blasting grit containing recovered steel, coal and metal slag, bottom ash, glass, plastic, fused alumina oxide, or walnut shells.

#### 4.1.18.5

#### 4.1.18.6 Park and recreation products:

- (a) Playground surfaces and running tracks containing recovered rubber or plastic.
- (b) Plastic fencing containing recovered plastic for use in controlling snow or sand

- drifting and as a warning/safety barrier in construction or other applications.
- (c) Park benches and picnic tables containing recovered steel, aluminum, plastic, or concrete.
- (d) Playground equipment containing recovered plastic, steel, or aluminum.

4.1.18.7

4.1.18.8 Landscaping products:

- (a) Hydraulic mulch products containing recovered paper or recovered wood used for hydroseeding and as an over-spray for straw mulch in landscaping, erosion control, and soil reclamation.
- (b) Compost made from yard trimmings, leaves, grass clippings, and/ or food waste for use in landscaping, seeding of grass or other plants on roadsides and embankments, as a nutritious mulch under trees and shrubs, and in erosion control and soil reclamation.
- (c) Garden and soaker hoses containing recovered plastic or rubber.
- (d) Lawn and garden edging containing recovered plastic or rubber.
- (e) Plastic lumber landscaping timbers and posts containing recovered materials.

4.1.18.9

4.1.18.10 Non-paper office products:

- (a) Office recycling containers and office waste receptacles.
- (b) Plastic desktop accessories.
- (c) Toner cartridges.
- (d) Plastic-covered binders containing recovered plastic; chipboard and pressboard binders containing recovered paper; and solid plastic binders containing recovered plastic.
- (e) Plastic trash bags.
- (f) Printer ribbons.
- (g) Plastic envelopes.
- (h) Plastic clipboards containing recovered plastic.
- (i) Plastic file folders containing recovered plastic.
- (j) Plastic clip portfolios containing recovered plastic.
- (k) Plastic presentation folders containing recovered plastic.
- (l) Office furniture containing recovered steel, aluminum, wood, agricultural fiber, or plastic.

### **13. Cargo Preference - Use of United States-Flag Vessels**

46 U.S.C. 55305 and 46 C.F.R. § 381.7 (The Maritime Administration (MARAD) regulations) impose cargo preference requirements in contracts and subcontracts in which equipment, materials or commodities may be transported by ocean vessel in carrying out the project. The Cargo Preference requirements apply to all contracts involved with the transport of equipment, material, or commodities by ocean vessel. If the Contractor has knowledge of or anticipates any equipment, materials or commodities that may be shipped by ocean vessel, the Contractor agrees to the following:

- a. to use 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 the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;
- b. to furnish within 20 working 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 the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill-of-lading.); and

c. to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

#### 14. **Buy America**

FTA's Buy America law and regulations apply to projects that involve the purchase of more than \$150,000 of iron, steel, manufactured goods, or rolling stock to be delivered to the recipient to be used in an FTA assisted project. The Buy America regulation at 49

C.F.R. § 661.13 requires notification of the Buy America requirements in a Procuring Agency bid or request for proposal for FTA funded contracts.

The contractor agrees to comply with 49 U.S.C. 5323(j), 49 C.F.R. part 661, and the FAST Act Section 3011, effective date October 1, 2015, which provide that Federal funds may not be obligated unless all steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7. Appendix A grants a general public interest waiver from the Buy America requirements that apply to microprocessors, computers, microcomputers, or software, or other such devices, which are used solely for the purpose of processing or storing data. This general waiver does not extend to a product or device which merely contains a microprocessor or microcomputer and is not used solely for the purpose of processing or storing data.

The bidder or offeror must submit to the Procuring Agency the appropriate Buy America certification in the bid or offer. Bids or offers that are not accompanied by a completed Buy America certification will be rejected as nonresponsive.

The Buy America requirements flow down from FTA to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance.

**Effective October 1, 2015 small purchases (under the \$150,000 threshold) made with FTA funds, will not be subject to the Buy America requirement. The value of small purchases should be determined by using the "contract price" and not "unit price".** This provision of the FAST Act applies to all purchases for capital, operating, or planning funds.

- 4.1.18.11 BIDS OR OFFERS THAT ARE SUBMITTED WITHOUT THE COMPLETED BUY AMERICA CERTIFICATION MUST BE REJECTED AS NONRESPONSIVE. BIDDERS ARE ADVISED THAT SUBMISSION OF BOTH CERTIFICATIONS WITH THE BID IS ALSO CONSIDERED NONRESPONSIVE AND WILL RESULT IN REJECTION OF THE BID; ONLY ONE CERTIFICATION (either B or C) SHALL BE SUBMITTED. *The certification requirement does not apply to lower tier subcontractors.*



15. **Fly America**

The Fly America requirements apply to the transportation of persons or property, by air, between a place in the U.S. and a place outside the U.S., or between places outside the U.S., when the FTA will participate in the costs of such air transportation. First tier contractors who are responsible for ensuring that lower tier contractors and subcontractors are in compliance.

a) *Definitions.* As used in this clause--

- “International air transportation” means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.
- “United States” means the 50 States, the District of Columbia, and outlying areas.
- “U.S.-flag air carrier” means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

b) When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, recipients, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.

d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

**4.1.19 Statement of Unavailability of U.S.-Flag Air Carriers**

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons. See FAR § 47.403. *[State reasons]:*

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- e) The Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

**16. Debarment, Suspension, Ineligibility, and Voluntary Exclusion**

The Contractor shall comply and facilitate compliance with U.S. DOT regulations, “Nonprocurement Suspension and Debarment,” 2 C.F.R. part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) “Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” 2 C.F.R. part 180, 2 C.F.R. § 200.213, and 2 C.F.R. Part 200 Appendix II (I). These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:

- a) Debarred from participation in any federally assisted Award;
- b) Suspended from participation in any federally assisted Award;
- c) Proposed for debarment from participation in any federally assisted Award;
- d) Declared ineligible to participate in any federally assisted Award;
- e) Voluntarily excluded from participation in any federally assisted Award; or
- f) Disqualified from participation in any federally assisted Award.

A contract award (of any tier) in an amount expected to equal or exceed \$25,000 or a contract award at any tier for a federally required audit (irrespective of the contract amount) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), at <https://www.sam.gov/> in accordance with the OMB guidelines at 2 C.F.R. part 180 that implement Executive Orders 12549 and 12689. The Excluded Parties List System in SAM contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

The Procuring Agency will be reviewing all third party contractors under the “System for Award Management” at <https://www.sam.gov/> before entering into any contracts.

If the Procuring Agency or NCDOT suspends, debars, or takes similar action against a Contractor or subcontractor, the NCDOT will provide immediate written notice to the:

- (a) FTA Regional Counsel for the Region in which the NCDOT is located or implements the Project,
- (b) FTA Headquarters Manager that administers the Grant, or
- (c) FTA Chief Counsel, and
- (d) NCDOT/Public Transportation Division.

- 4.1.19.1 The requisite Debarment and Suspension Certification is included as ATTACHMENT D (attach additional statement if necessary) and must be executed for contracts of \$25,000 or more and prior to the award of the contract.

## **17. Termination or Cancellation of Contract**

For all contracts in excess of \$10,000, the Termination clause extends to all third party contractors and their contracts at every tier and subrecipients and their subcontracts at every tier, as referenced in 2 C.F.R. § 200.339 and 2 C.F.R. Part 200, Appendix II (B).

**Termination for Convenience** - The Owner may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Owner's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the Owner to be paid the Contractor. If the Contractor has any property in its possession belonging to Owner, the Contractor will account for the same, and dispose of it in the manner the Owner directs.

**Termination for Default (Breach or Cause)** - If the Contractor does not deliver services in accordance with the contract delivery schedule, or if the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the Owner may terminate this contract for default. Termination shall be effected by serving a Notice of Termination on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will be paid only the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the Owner that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the Owner, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a Termination for Convenience.

**Opportunity to Cure** - The Owner, in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the Notice of Termination will state the time period in which cure is permitted and other appropriate conditions. If Contractor fails to remedy to Owner's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [10 days] after receipt by Contractor of written notice from Owner setting forth the nature of said breach or default, Owner shall have the right to terminate the contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Owner from also pursuing all available remedies against Contractor and its sureties for said breach or default.

**Waiver of Remedies for any Breach** - In the event that Owner elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this contract, such waiver by Owner shall not limit Owner's remedies for any succeeding breach of that or of any other covenant, term, or condition of this contract.

**Termination for Default (Construction)** - If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will ensure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provision of this contract, the Owner may terminate this contract for default. The Owner shall terminate by delivering to the Contractor a Notice of Termination

specifying the nature of the default. In this event, the Owner may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Owner resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Owner in completing the work.

The Contractor's right to proceed shall not be terminated nor shall the Contractor be charged with damages under this clause if:

1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of Owner, acts of another contractor in the performance of a contract with Owner, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. The Contractor, within [10] days from the beginning of any delay, notifies Owner in writing of the causes of delay. If, in the judgment of Owner, the delay is excusable, the time for completing the work shall be extended. The judgment of Owner shall be final and conclusive for the parties, but subject to appeal under the Disputes clause(s) of this contract.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Owner.

#### **18. Violation and Breach of Contract. Rights and Remedies**

All contracts in excess of \$150,000 shall contain administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate as provided in 2 C.F.R. § 200.326 and 2

C.F.R. part 200, Appendix II (A). The Violations and Breach of Contracts clause flow down to all third party contractors and their contracts at every tier.

**Rights and Remedies of the Owner** - The Owner shall have the following rights in the event that the Owner deems the Contractor guilty of a breach of any term under the Contract.

1. The right to take over and complete the work or any part thereof as agency for and at the expense of the Contractor, either directly or through other contractors;
2. The right to cancel this Contract as to any or all of the work yet to be performed;
3. The right to specific performance, an injunction or any other appropriate equitable remedy; and
4. The right to money damages.

For purposes of this Contract, breach shall include the Contractor and any subsequent named subcontractor.

**Rights and Remedies of the Contractor** - Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract, which may be committed by the Owner, the Contractor expressly agrees that no default, act or omission of the Owner shall

constitute a material breach of this Contract, entitling Contractor to cancel or rescind the Contract (unless the Owner directs Contractor to do so) or to suspend or abandon performance.

**Remedies** - Substantial failure of the Contractor to complete the Project in accordance with the terms of this Agreement will be a default of this Agreement. In the event of a default, the Owner will have all remedies in law and equity, including the right to specific performance, without further assistance, and the rights to termination or suspension as provided herein. The Contractor recognizes that in the event of a breach of this Agreement by the Contractor before the Owner takes action contemplated herein, the Owner will provide the Contractor with sixty (60) days written notice that the Owner considers that such a breach has occurred and will provide the Contractor a reasonable period of time to respond and to take necessary corrective action.

If there is credible evidence that a Third Party Participant (Contractor) has submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 *et seq.*, or has committed a criminal or civil violation of law pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving Federal funding, notification of FTA is required.

If a legal matter as described above emerges, the Owner must promptly notify the NCDOT, which in turn will notify the U.S. DOT Inspector General, in addition to the FTA Chief Counsel or FTA Regional Counsel for the Region in which the Project is located.

## 19. **Resolution of Disputes**

All contracts in excess of \$150,000 shall contain contractual dispute and remedies as appropriate as provided in 2 C.F.R. § 200.326 and 2 C.F.R. part 200, Appendix II (A). The Violations and Breach of Contracts clause flow down to all third party contractors and their contracts at every tier.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of the Owner. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the authorized representative of the Owner. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the authorized representative of the Owner shall be binding upon the Contractor and the Contractor shall abide by the decision.

Alternative Dispute Resolution – The Owner and the Contractor intend to resolve all disputes under this Agreement to the best of their abilities in an informal manner. To accomplish this end, the parties will use an Alternative Dispute Resolution process to resolve disputes in a manner designed to avoid litigation. In general, the parties contemplate that the Alternative Dispute Resolution process will include, at a minimum, an attempt to resolve disputes through communications between their staffs, and, if resolution is not reached at that level, a procedure for review and action on such disputes by appropriate management level officials within the Owner and the Contractor's organization.

In the event that a resolution of the dispute is not mutually agreed upon, the parties can agree to mediate the dispute or proceed with litigation. Notwithstanding any provision of this section, or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the Contract shall be heard by a Court de novo and the court shall not

be limited in such proceeding to the issue of whether the Authority acted in an arbitrary, capricious or grossly erroneous manner.

Pending final settlement of any dispute, the parties shall proceed diligently with the performance of the Contract, and in accordance with the Owner's direction or decisions made thereof.

Performance during Dispute - Unless otherwise directed by the Owner, the Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the Owner and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the Owner is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the Owner, Architect or

Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

## **20. Protest Procedures**

To ensure that protests are received and processed effectively the Owner shall provide written bid protest procedures upon request. In all instances information regarding the protest shall be disclosed to the N.C. Department of Transportation (NCDOT). All protest requests and decisions must be in writing. A protester must exhaust all administrative remedies with the Owner before pursuing remedies through the NCDOT. Reviews of protests by the NCDOT will be limited to the Owner's failure to have or follow its protest procedures, or its failure to review a complaint or protest. An appeal to the NCDOT must be received by the Department within three (3) working days of the date the protester knew or should have known of the violation. The protester must deliver its appeal to the FTA Regional Administrator for the region administering its project or the FTA Associate Administrator for the program office administering its project within five (5) working days of the date when the protester has received actual or constructive notice of NCDOT's final decision. Likewise, the protester must provide its appeal to the FTA Regional Administrator for the region administering its project or the FTA Associate Administrator for the program office administering its project within five (5) working days of the date when the protester has identified other grounds for appeal to FTA. For example, other grounds for appeal include the recipient's failure to have or failure to comply with its protest procedures or failure to review the protest.

Violations of Federal law or regulation will be handled by the complaint process stated within that law or regulation. Violations of State or local law or regulations will be under the jurisdiction of State or local authorities.

**21. No Federal Government Obligations to Third Parties**

The No Obligation clause extends to all third party contractors and their contracts at every tier.

The Owner and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Owner, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

**22. Davis-Bacon Act**

The Procuring Agency will ensure that each third party contractor complies with all federal laws, regulations, and requirements, including:

- a. Federal transit laws, specifically 49 U.S.C. § 5333(a), (FTA's "Davis-Bacon Related Act");
- b. The Davis-Bacon Act, 40 U.S.C. §§ 3141 – 3144, 3146, and 3147 and as referenced in 2 CFR part 200 Appendix II (D);
- c. U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. part 5.
- d. Section 1 of the Copeland "Anti-Kickback" Act, as amended, 18 U.S.C. § 874;
- e. Section 2 of the Copeland "Anti-Kickback" Act, as amended, 40 U.S.C. § 3145;
- f. U.S. DOL regulations, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States," 29 C.F.R. part 3.

These requirements extend to all third party contractors and their contracts at every tier and their subcontracts at every tier. The Davis-Bacon Act and the Copeland "Anti- Kickback" Act apply to all prime construction, alteration or repair (including painting and decorating) contracts in excess of \$2,000.

The Procuring Agency must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. In addition, the Procuring Agency can draw on the following language for inclusion in their federally funded procurements.

For all prime construction, alteration or repair contracts in excess of \$2,000 awarded by FTA, the Contractor shall comply with the Davis-Bacon Act and the Copeland "Anti- Kickback" Act. Under 49 U.S.C. § 5333(a), prevailing wage protections apply to laborers and mechanics employed on FTA assisted construction, alteration, or repair projects. The Contractor will comply with the Davis-

Bacon Act, 40 U.S.C. §§ 3141-3144, and 3146-3148 as supplemented by DOL regulations at 29 C.F.R. part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction." In accordance with the statute, the Contractor shall pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, the Contractor agrees to pay wages not less than once a week. The Contractor shall also comply with the Copeland "Anti-Kickback" Act (40 U.S.C. § 3145), as supplemented by DOL regulations at 29

C.F.R. part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States." The Contractor is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

The Davis Bacon Wages for the construction project are included with specifications and Attachment G, Owners Certification of Compliance with Davis-Bacon Provisions must be executed for bid to be awarded. **(See Attachment G)**

### **23. Contract Work Hours and Safety Standards**

For all contracts in excess of \$100,000 that involve the employment of mechanics or laborers, the Contractor shall comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 3701-3708), as supplemented by the DOL regulations at 29

C.F.R. part 5. Under 40 U.S.C. § 3702 of the Act and as referenced in 2 CFR part 200 Appendix II (E), the Contractor shall compute the wages of every mechanic and laborer, including watchmen and guards, on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market, or to contracts for transportation or transmission of intelligence.

In the event of any violation of the clause set forth herein, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, the 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 watchmen and guards, employed in violation of this clause in the sum of \$10 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 this clause.

The FTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or 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, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in this section.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts.



The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this agreement.

**24. Project Labor Agreements (formerly Neutrality in Labor Relations)**

As a condition of contract award, the Owner may require a third party contractor or subcontractor to have an affiliation with a labor organization such as a project labor agreement, consistent with Executive Order No. 13502, "Use of Project Labor Agreements [PLA] for Federal Construction Projects," February 6, 2009, 41 U.S.C. ch. 39, Refs & Annos., except as the Federal Government determines otherwise in writing.

**25. Geographic Preference**

Procurements shall be conducted in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in evaluation or award of bids or proposals, except where applicable Federal statutes expressly mandate or encourage geographic preference. This does not preempt State licensing laws.

**26. No Federal Government Obligations to Third Parties**

The No Obligation clause extends to all third party contractors and their contracts at every tier.

The Owner and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Owner, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

**27. Program Fraud and False or Fraudulent Statements or Claims and Related Acts**

The Program Fraud clause requirements extend to all third party contractors and their sub-contracts at every tier.

(1) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its activities in connection with this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may apply, the

Contractor also 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, as amended, on the Contractor to the extent the Federal Government deems appropriate.

(2) The Contractor also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. chapter 53, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the Contractor, to the extent the Federal Government deems appropriate.

(3) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

**28. Exclusionary or Discriminatory Specifications or Requirements**

The Contractor agrees that it will comply with the requirements of 49 U.S.C. Sect. 5325(h) by refraining from using any funds derived from FTA in performance of this Contract to support subcontracts using exclusionary or discriminatory specifications or requirements.

**29. Access to Records and Reports and Record Retention**

The record keeping and access requirements extend to all third party contractors and their contracts at every tier. Under 49 U.S.C. § 5325(g) and 2 C.F.R. § 200.336, FTA has the right to examine and inspect all records, documents, and papers, including contracts, related to any FTA project financed with Federal assistance authorized by 49 U.S.C. Chapter 53.

a. Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, sub-agreements, leases, subcontracts, arrangements, other third party agreements of any type, and supporting materials related to those records.

b. Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.333. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.

c. Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information related to performance of this contract as reasonably may be required.

d. Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract as reasonably may be

required.

The Contractor agrees to permit, and require its subcontractors to permit, the U.S. Secretary of Transportation, and the Comptroller General of the United States, and, to the extent appropriate, the State, or their authorized representatives, upon their request to inspect all Project work, materials, payrolls, invoices, and other data, and to audit the books, records, and accounts of the Contractor and its subcontractors pertaining to the Project, as required by 49 U.S.C. § 5325(g) and 2 C.F.R. § 200.336.

Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S. D. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5303, 5307, 5309, 5339, 5310, 5311, 5316, or 5317.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The State of North Carolina, Office of the State Auditor, now requires that all records now be retained for a period of five (5) years after that date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives have disposed of all such litigation, appeals, claims or exceptions related thereto.

**30. Metric System**

To the extent required by U.S. DOT or FTA, the Contractor agrees to use the metric system of measurement in its Contract activities as may be required by 49 U.S.C. Sect. 205a et seq.; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. Sect. 205a; and other regulations, guidelines and policies issued by U.S. DOT or FTA. To the extent practicable and feasible, the Contractor agrees to accept products and services with dimensions expressed in the metric system of measurement.

**31. Seismic Safety**

The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the Earthquake Hazards Reduction Act of 1977, as amended, 42 U.S.C. § 7701 *et seq.*, and the U.S. DOT regulations, "Seismic Safety", 49 C.F.R. Part 41, specifically, 49 C.F.R. § 41.117. The contractor also agrees to certify to the extent required by the regulation to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and that the certification of compliance issued on the project and will facilitate and follow Executive Order No. 12699, "Seismic Safety of Federal and Federally-Assisted or Regulated New Building Construction," 42 U.S.C. § 7704 note, except as the Federal Government determines otherwise in writing.

#### 4.1.20

### 32. **Supervision of Construction**

Competent and adequate engineering supervision will be maintained at the construction site of the Project to ensure that the completed work conforms to the approved plans and specifications.

### 33. **Liquidated Damages**

Liquidated damages are a specific sum (or a sum readily determinable) of money stipulated by the contracting parties as the amount to be recovered for each day of delay in delivery of the product; typically, the actual damage amount is unknown or difficult to estimate and is liquidated by the mutual agreement to the rate.

Any liquidated damages recovered shall be credited to the Project account involved unless the Federal Government permits otherwise.

### 34. **Bonding Requirements**

Bonds are required for all construction or facility improvement contracts and subcontracts exceeding the simplified acquisition threshold (\$150,000). Contractors and subcontractors agree to comply with the bid guarantee, performance, and payment bonding provisions of 2 C.F.R. § 200.325 and 31 C.F.R. part 223, as applicable and with any guidance FTA may issue. FTA may accept the bonding policy and requirements of the State of North Carolina provided that the federal interest is adequately protected. The following minimum requirements for construction contracts apply:

- a. A bid guarantee from each bidder equivalent to five percent of the bid price. The “bid guarantee” must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.
- b. A performance bond on the part of the contractor for 100 percent of the contract price. A “performance bond” is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
- c. A payment bond on the part of the contractor for 100 percent of the contract price. A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

These requirements extend to all contractors and their subcontracts at every tier that exceed the simplified acquisition threshold.

#### 4.1.21 **Bid Guarantee**

Bidders shall furnish a bid guaranty in the form of a bid bond, or certified treasurer's or cashier's check issued by a responsible bank or trust company, made payable to the OWNER. The amount of such guaranty shall be equal to **5%** of the total bid price.

In submitting this bid, it is understood and agreed by bidder that the OWNER reserves the right to reject any and all bids, or part of any bid, and it is agreed that the Bid may not be withdrawn for a period of [90] days subsequent to the opening of bids, without the written consent of OWNER.

It is also understood and agreed that if the undersigned bidder should withdraw any part or all of his bid within [90] days after the bid opening without the written consent of the OWNER, or refuse or be unable to enter into this Contract as provided above, or refuse or be unable to furnish adequate and acceptable Performance and Payment Bonds, or refuse or be unable to furnish adequate and acceptable insurance, as provided above, it shall forfeit its bid guaranty to the extent OWNER'S damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security thereof.

This deposit shall be retained if the successful bidder fails to execute the contract within 10 days after the award or fails to give satisfactory surety as required herein. N.C.G.S. 143-129(b)

It is further understood and agreed that to the extent the defaulting bidder's bid guaranty shall prove inadequate to fully recompense the OWNER for the damages occasioned by default, then the undersigned bidder agrees to indemnify the OWNER and pay over to the OWNER the difference between the bid guarantee and the OWNER'S total damages so as to make the OWNER whole.

The undersigned understands that any material alteration of any of the above or any of the material contained herein, other than that requested will render the bid unresponsive.

#### **4.1.22     Performance Guarantee**

A Performance Guarantee in the amount of **100%** of the Contract value is required by the OWNER to ensure faithful performance of the Contract. Either a Performance Bond or an Irrevocable Stand-By Letter of Credit shall be provided by the Contractor and shall remain in full force for the term of the Agreement. The successful Bidder shall certify that it will provide the requisite Performance Guarantee to the OWNER within ten (10) business days from Contract execution. The OWNER requires all Performance Bonds to be provided by a fully qualified surety company acceptable to the OWNER and listed as a company currently authorized as stated in 31 C.F.R. Part 22 as possessing a Certificate of Authority as described hereunder. OWNER may require additional performance bond protection when the contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The OWNER may secure additional protection by directing the Contractor to increase the amount of the existing bond or to obtain an additional bond.

#### **4.1.23     Payment Bonds**

Contractors generally must obtain a standard payment bond. A payment bond is obtained to ensure that the contractor will pay all subcontractors/ suppliers providing labor and material for the term of the project as required by law. FTA has determined that payment bonds in the following amounts are adequate to protect FTA's interest and will accept the N.C.G.S. state bonding policy that requires the following minimums:

- In North Carolina when the total amount of construction contracts awarded for any one project exceeds **three hundred thousand dollars (\$300,000)**, a **payment bond** is required by the contracting body (Owner) from any Contractor or Construction Manager at Risk (CMAR) with any contract more than fifty thousand dollars (\$50,000);
  - A payment bond in the amount of one hundred percent (100%) of the construction contract amount, conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performing labor for which a contractor, subcontractor, or construction manager at risk is liable.

#### 4.1.24

### 35. **State and Local Disclaimer**

The uses of many of the suggested clauses are not governed by Federal law, but are significantly affected by State law. The language of the suggested clauses may need to be modified depending on state law, and that before the suggested clauses are used in the grantees procurement documents, the grantees should consult with their local attorney.

### 36. **Incorporation of Federal Transit Administration (FTA) Terms**

The preceding provisions include, in part, certain Standard Terms and Conditions required by USDOT, whether or not expressly set forth in the preceding contract provisions. In order to comply with the requirements of 49 U.S.C. chapter 53 and other applicable federal laws, regulations, and requirements in effect now or later that affect its third party procurements, all contractual provisions required by USDOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008, the current Master Agreement, and 2

C.F.R 200 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement.

The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any requests which would cause the Procuring Agency to be in violation of the FTA terms and conditions.

### 37. **Hold Harmless**

Except as prohibited or otherwise limited by State law, the Contractor agrees to indemnify, save, and hold harmless the Owner of this Contract and its officers, agents, and employees acting within the scope of their official duties against any liability, including all claims, losses, costs and expenses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the contractor or subcontractor in the performance of this contract and that are attributable to the negligence or intentionally tortuous acts of the contractor.

The Contractor represents and warrants that it shall make no claim of any kind or nature against the Owner or its agents who are involved in the delivery or processing of contractor goods to the

Owner. The representation and warranty in the preceding sentence shall survive the termination or expiration of this contract.

**38. Safe Operation of Motor Vehicles**

The Safe Operation of Motor Vehicles requirements flow down to all third party contractors at every tier. In compliance with Federal Executive Order No. 13043, April 16, 1997, 23 U. S. C. § 402 (Increasing Seat Belt Use) and Executive Order No. 13513 Reducing Text Messaging While Driving,” October 1, 2009, 23 U.S.C. Section 402 note, and DOT Order 3902.10, “Text Messaging While Driving,” December 30, 2009,

**Seat Belt Use** - The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company- owned, rented, or personally-operated vehicles. The terms “company-owned” and “company-leased” refer to vehicles owned or leased either by the Contractor or Owner.

**Distracted Driving** -The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contactor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

**39. National Intelligent Transportation Systems Architecture and Standards *(applicable to ITS projects)***

To the extent applicable, the Contractor agrees to conform to the National Intelligent Transportation Systems (ITS) Architecture and Standards requirements of 23 U.S.C. § 517(d), unless it obtains an exemption from those requirements, and follow FTA Notice, “FTA National ITS Architecture Policy on Transit Projects,” 66 Fed. Reg. 1455, January 8, 2001 and all other federal guidance.

**40. North Carolina State Ethic’s Requirement**

Pursuant to Executive Order # 24, this section should be included in the terms and conditions of all contracts let by the Governor’s Cabinet Agencies and the Office of the Governor:

- 1) “By Executive Order 24 and N.C. G.S. § 133-32, it is unlawful for any vendor or contractor ( i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor’s Cabinet Agencies (i.e., Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who:
  - (1) have a contract with a governmental agency; or
  - (2) have performed under such a contract within the past year; or
  - (3) anticipate bidding on such a contract in the future.

For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. Sec. 133-32.

Executive Order 24 also encouraged and invited other State Agencies to implement the requirements and prohibitions of the Executive Order to their agencies. Vendors and contractors should contact other State Agencies to determine if those agencies have adopted Executive Order 24.”

To be added near the signature portion of all contracts let by the Governor’s Cabinet Agencies and the Office of the Governor:

“N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.”

**41. Sensitive Security Information**

Each third party contractor must protect, and take measures to ensure that its subcontractors at each tier protect, “sensitive security information” made available during the administration of a third party contract or subcontract to ensure compliance with “The Homeland Security Act”, as amended, specifically 49 U.S.C. Section 40119(b), The Aviation and Transportation Security Act, as amended, 49 U.S.C. § 114(r), U.S. DOT regulations, “Protection of Sensitive Security Information,” 49 C.F.R. part 15, and U.S. Department of Homeland Security, Transportation Security Administration regulations, “Protection of Sensitive Security Information,” 49 C.F.R. part 1520.

**42. Veterans Preference**

As provided in 49 U.S.C. § 5325(k) to the extent practicable, the Procuring Agency agrees and assures that it:

- (1) Will give a hiring preference to veterans as defined by as defined in 5 U.S.C. § 2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a Capital Project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53, and
- (2) Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

**43. NC E-Verify Requirements**

To ensure compliance with the E-Verify requirements of the General Statutes of North Carolina, all contractors, including any subcontractors employed by the contractor(s), by submitting a bid, proposal or any other response, or by providing any material, equipment, supplies, services, etc.,



attest and affirm that they are aware and in full compliance with Article 2 of Chapter 64, (NCGS64-26(a)) relating to the E-Verify requirements by executing and submitting the E-verify Affidavit included in this Invitation for Bids as **Attachment E. (Form required on all construction projects.)**

**44. Iran Divestment Act**

N.C.G.S. 147-86.59 requires that all bids or contracts or renewals with the State of North Carolina, North Carolina local governments, or any other political subdivision of the State of North Carolina have a certification that the contractor is not on the Final Divestment List as created by the NC State Treasurer pursuant to N.C.G.S. § 147-86.58. In compliance with the requirements of the Iran Divestment Act 2015 and N.C.G.S. § 147-

86.55 and 147-86.59, the Contractor shall not utilize the performance of the contract any subcontractor that is identified on the Final Divestment List.

The State Treasurer's Final Divestment List can be found on the State Treasurer's website: [www.nctreasurer.com/Iran](http://www.nctreasurer.com/Iran) and will be updated every 180 days. Effective February 26, 2016. (See Attachment F – Must be completed with all contracts over \$1,000)

**45. Flow Down**

**4.1.25**

Notice to FTA and U.S. DOT Inspector General of information related to fraud, waste, abuse, or other legal matters. This applies to all contracts at all tiers expected to equal or exceed \$25,000. Recipient must require a prime contractor to “flow down” the requirement to subcontractors.

Notification to FTA; Flow Down Requirement. If a current or prospective legal matter that may affect the Federal Government emerges, the Recipient must promptly notify the FTA Chief Counsel and FTA Regional Counsel for the Region in which the Recipient is located. The Recipient must include a similar notification requirement in its Third-Party Agreements and must require each Third Party Participant to include an equivalent provision in its sub agreements at every tier, for any agreement that is a “covered transaction” according to 2 C.F.R. §§ 180.220 and 1200.220.

(1) The types of legal matters that require notification include, but are not limited to, a major dispute, breach, default, litigation, or naming the Federal Government as a party to litigation or a legal disagreement in any forum for any reason.

(2) Matters that may affect the Federal Government include, but are not limited to, the Federal Government's interests in the Award, the accompanying Underlying Agreement, and any Amendments thereto, or the Federal Government's administration or enforcement of federal laws, regulations, and requirements.

(3) Additional Notice to U.S. DOT Inspector General. The Recipient must promptly notify the U.S. DOT Inspector General in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the Recipient is located, if the Recipient has knowledge of potential fraud, waste, or abuse occurring on a Project receiving assistance from FTA. The notification provision applies if a person has or may have submitted a false claim under the False Claims Act, 31 U.S.C. § 3729, et seq., or has or may have committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bid

rigging, misappropriation or embezzlement, bribery, gratuity, or similar misconduct involving federal assistance. This responsibility occurs whether the Project is subject to this Agreement or another agreement between the Recipient and FTA, or an agreement involving a principal, officer, employee, agent, or Third-Party Participant of the Recipient. It also applies to subcontractors at any tier. Knowledge, as used in this paragraph, includes, but is not limited to, knowledge of a criminal or civil investigation by a Federal, state, or local law enforcement or other investigative agency, a criminal indictment or civil complaint, or probable cause that could support a criminal indictment, or any other credible information in the possession of the Recipient. In this paragraph, “promptly” means to refer information without delay and without change. This notification provision applies to all divisions of the Recipient, including divisions tasked with law enforcement or investigatory functions.

**46. Prohibition on certain telecommunications and video surveillance services or equipment.**

**4.1.26**

(a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under [Public Law 115-232](#), section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(c) See [Public Law 115-232](#), section 889 for additional information.

(d) See also [§ 200.471](#).

**ATTACHMENT A**  
**CERTIFICATION REGARDING LOBBYING**  
**(To be submitted with all bids exceeding \$250,000.)**

The undersigned \_\_\_\_\_ certifies, to the best of his or her knowledge and belief, that:  
(Contractor)

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any persons 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 employee of a Member of Congress in connection with the awarding to 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.
2. 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 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 [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (PL 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.  
This certification is a material representation of fact upon which reliance is 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 (as amended by the Lobbying Disclosure Act of 1995). 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 \$250,000 for each such failure.

[Note: Pursuant to 31 U.S.C. 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 for each such expenditure or failure.]

The Contractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Section A 3801 *et seq.*, apply to this certification and disclosure, if any.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractors Authorized Official

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, in the State of \_;  
and the County of \_\_\_\_\_.

Notary Public \_\_\_\_\_  
My Appointment Expires \_\_\_\_\_

ATTACHMENT B

CERTIFICATE OF COMPLIANCE  
WITH BUY AMERICA REQUIREMENTS

***(To be submitted with all bids exceeding \$250,000. A bid, which does not include this certification or the certification under Attachment C, will not be eligible for award.)***

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 C.F.R. Part 661.

DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

COMPANY \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_

ATTACHMENT C

CERTIFICATE OF NON-COMPLIANCE  
WITH BUY AMERICA REQUIREMENTS

***(To be submitted with all bids exceeding \$250,000. A bid, which does not include this certification or the certification under Attachment B, will not be eligible for award.)***

The bidder hereby certifies that it cannot comply with the requirements of 49 U.S.C. Section 5323(j), but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulation in 49 CFR Part 661.7.

DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

COMPANY \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_

ATTACHMENT D

CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
INELIGIBILITY and VOLUNTARY EXCLUSION  
LOWER TIER COVERED TRANSACTION

***(To be submitted with all bids exceeding \$25,000.)***

- (1) The prospective lower tier participant (Bidder/Contractor) certifies, by submission of this bid or proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant (Bidder/Contractor) is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The lower tier participant (Bidder/Contractor), \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of this statement of its certification and disclosure, if any.

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

COMPANY \_\_\_\_\_

DATE \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_

**ATTACHMENT E**

STATE OF NORTH CAROLINA  
COUNTY OF \_\_\_\_\_

AFFIDAVIT OF COMPLIANCE WITH N.C. E-VERIFY STATUTES

*(To be submitted with all quotes/bids)*

I, \_\_\_\_\_ (hereinafter the "Affiant"), duly authorized by and on behalf of \_\_\_\_\_ (hereinafter the "Employer") after being first duly sworn deposes and says as follows:

1. I am the \_\_\_\_\_ (President, Manager, CEO, etc.) of the Employer and possess the full authority to speak for and on behalf of the Employer identified above.
2. Employer understands that "E-Verify" means the federal E-Verify program operated by the United States Dept. of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law.
3. ☐ Employer employs 25 or more employees, and is in compliance with the provisions of N.C. General Statute §64-26. Employer has verified the work authorization of its employees through E-Verify and shall retain the records of verification for a period of at least one year.  
☐ Employer employs fewer than 25 Employees and is therefore not subject to the provisions of N.C. General Statute §64-26.
4. All subcontractors engaged by or to be engaged by Employer have or will have likewise complied with the provisions of N.C. General Statute §64-26.
5. Employer shall keep the State of North Carolina informed of any change in its status pursuant to Article 2 of Chapter 64 of the North Carolina Statutes.  
This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name and Title

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

(SEAL)

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_

## ATTACHMENT F

STATE OF NORTH CAROLINA  
COUNTY OF \_\_\_\_\_

### IRAN DIVESTMENT ACT CERTIFICATION

In accordance to N.C.G.S. 147-86.59, any contractor attempting to contract with the State of North Carolina, North Carolina local governments, or any other political subdivision of the State of North Carolina shall certify at the time of the bid or renewal that the assignee or contractor is not identified on a list created by the State Treasurer pursuant to N.C.G.S. 147-86.58.

The Iran Divestment Act of 2015, G.S. 147-86.55 *et seq.*\* requires that each contractor, prior to contracting with the State certifies, and the undersigned on behalf of the contractor does hereby certify, to the following:

1. that the Contractor is not identified on the Final Divestment List of entities that the NC State Treasurer has determined engages in investment activities in Iran.
2. that the Contractor shall not utilize on any contract with the State agency any subcontractor that is identified on the Final Divestment List; and
3. that the undersigned is authorized by the contractor to make this certification.

The agency shall include the certification in the procurement record.

The State Treasurer's Final Divestment List can be found on the State Treasurer's website at the address: <https://www.nctreasurer.com/inside-the-department/OpenGovernment/Pages/Iran-Divestment-Act-Resources.aspx> and will be updated every 180 days. For questions about the Department of State Treasurer's Iran Divestment Policy, please contact Meryl Murtagh at [Meryl.Murtagh@nctreasurer.com](mailto:Meryl.Murtagh@nctreasurer.com) or (919) 814-3852.

\* Note: Enacted by Session Law 2015-118 as G.S.143C-55 *et seq.*, but has been renumbered for codification at the direction of the Revisor of Statutes.

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_



## **ATTACHMENT G**

### **CERTIFICATION OF COMPLIANCE WITH DAVIS-BACON PROVISIONS**

**PROJECT:** \_\_\_\_\_  
*(List name of construction project/repair)*

**LOCATION:** \_\_\_\_\_ **NC**    **COUNTY:** \_\_\_\_\_  
*(City)*

**CONTRACTOR/SUBCONTRACTOR:** \_\_\_\_\_

In accordance with the requirements of the Davis-Bacon Act, all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government are being paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of title 40, United States Code.

In addition, the owner/representative must conduct adequate oversight for compliance with Davis-Bacon and related Acts through (a) the review of payrolls and associated certifications,  
(b) conducting of employee interviews if necessary, and (c) the posting of the Davis-Bacon Poster, all wage determinations, and additional classifications (as appropriate) on the work site.

The Contractor/Subcontractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of the above statement and that the referenced project will be in compliance with the Davis-Bacon requirements.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractor's Authorized Official

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, in the State of \_\_\_\_\_; and the County of \_\_\_\_\_.

Notary Public \_\_\_\_\_

My Appointment Expires \_\_\_\_\_

## Appendix VIII

"General Decision Number: NC20230040 04/21/2023 Superseded General

Decision Number: NC20220040 State: North Carolina

Construction Type: Building

County: Wake County in North Carolina.

**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)(2)-(60).

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:	<ul style="list-style-type: none"><li>- Executive Order 14026 generally applies to the contract.</li><li>- The contractor must pay all covered workers at least \$16.20 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 2023.</li></ul>
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:	<ul style="list-style-type: none"><li>- Executive Order 13658 generally applies to the contract.</li><li>- The contractor must pay all covered workers at least \$12.15 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 2023.</li></ul>

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	01/06/2023
1	04/21/2023

CARP1263-005 10/01/2022

	Rates	Fringes
MILLWRIGHT	\$30.12	17.00

IRON0848-005 07/01/2022

	Rates	Fringes
IRONWORKER, STRUCTURAL	\$27.35	\$16.65

\*PLUM0421-003 07/01/2022

	Rates	Fringes
PIPEFITTER	\$31.66	12.69

\*SUNC2011-021 08/24/2011

	Rates	Fringes
BRICKLAYER	\$19.00	0.00
CARPENTER (Drywall Hanging Only)	\$13.83 **	0.00
CARPENTER (Excludes Drywall Hanging and Form Work)	\$17.55	4.14
CEMENT MASON/CONCRETE FINISHER	\$14.19 **	0.00
ELECTRICIAN	\$18.48	3.18
FORM WORKER	\$12.43	1.80
LABORER: Common or General	\$9.43 **	0.00
LABORER: Landscape & Irrigation	\$9.13 **	0.28
LABORER: Pipelayer	\$13.35 **	2.80
LABORER: Mason Tender-Brick/Cement/Concrete	\$12.00 **	0.00
OPERATOR: Backhoe/Excavator//Trackhoe	\$15.64 **	2.22
OPERATOR: Bulldozer	\$16.00 **	1.87
OPERATOR: Crane	\$19.77	4.48
OPERATOR: Forklift	\$13.86 **	0.00
OPERATOR: Grader/Blade	\$15.72 **	1.49

OPERATOR: Loader	\$16.17 **	0.25
PAINTER: Brush, Roller, and Spray	\$12.35 **	0.00
PLUMBER:	\$19.35	2.43
ROOFER:	\$11.06 **	1.26
SHEET METAL WORKER (HVAC Duct Installation Only)	\$20.86	2.25
SHEET METAL WORKER (Excludes HVAC Duct Installation)	\$15.81 **	1.40

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 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

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.

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) (ii)).

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

#### Union Rate Identifiers

A four-letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wages are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and

non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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## WAGE DETERMINATION APPEALS PROCESS

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

- an existing published wage determination
- a survey underlying a wage determination.
- a Wage and Hour Division letter setting forth a position on a wage determination matter.
- a conformance (additional classification and rate) ruling.

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

## Section 28 20 00 – Video Surveillance System

### 5 Part 1 - General

1. Scope
  - A. Refer to Section 27 00 00 for additional project scope information.
  - B. This section describes the general product and execution requirements related to furnishing and installing the project's Video Surveillance System. Requirements shall be understood to be the City of Raleigh's minimum and shall be expanded as necessary to ensure quality.
  - C. Contractor shall be responsible for providing complete and fully functional system as described in this specification and project drawings.
  - D. The digital video surveillance system for this project will consist of the following and shall be covered under the Base Bid:
    1. IP security camera system (and associated power supplies and media convertors if required)
    2. Video Monitoring System (VMS) consisting of Milestone Video Archiver(s) and Milestone Video Monitoring Workstation (City of Raleigh standard)
    3. Miscellaneous terminations, programming, licenses and updates to extend up to the Owner's final acceptance of the installed security system.
    4. All necessary wiring, cabling, conduit, raceways, data communication circuits, cable trays, firestopping, labor, tools, equipment, licenses and ancillary materials required to furnish and install new security cameras, video archiver and video monitoring workstation and recording system.
    5. Coordinating, configuring, connecting all cameras, video archiver and video monitoring workstations to Owner's network and testing cameras and associated equipment to ensure fully functioning security system integrated with the Owner's existing Milestone Video Management System.
    6. Contractor shall coordinate with the Owner for all specific network standards and for local area network (LAN) connections.
    7. Contractor shall provide all Milestone and camera integration licenses necessary to integrate the Milestone Video Management System into the Owner's Vykon Access Control System.
    8. Contractor shall be responsible for coordinating any network, software and hardware equipment needed to connect any device or server to the Owner's network. If any device or server does not meet the Owner's network requirement specification, the Contractor shall be responsible to bring the delinquent device up to the Owner's required specification before connecting the device to the Owner's network.
    9. Installation of the security camera system and providing onsite professional



services to assist in the initial setup and programming of all systems to bring components up to fully functioning operational status for acceptance. This shall include but not be limited to the following:

- a. Determine hardware, software and operations requirements for implementation.
- b. Set up and configure parameters on each camera for recording on the Video Archivers.
- c. Set-up optimum recording parameters on each Video Archiver.
- d. Test video system operations based on a camera by camera walkthrough.
- e. Perform end-user training.

## 2. Related Work

- A. Section 27 00 00 – General Technology Requirements
- B. Section 27 05 00 – Communications General Requirements
- C. Section 27 05 23 – Pathways for Technology Systems
- D. Section 27 11 00 – Communications Equipment Rooms
- E. Section 27 15 00 – Communications Horizontal Cabling
- F. Section 27 16 00 – Communications Connecting Cords
- G. Section 27 18 00 – Communications Labeling and Identification

## 3. Definitions

- A. Refer to Section 27 00 00 for additional definitions.

## 4. Reference Standards and Codes

- A. Refer to Section 27 00 00 for additional standards, codes and requirements.

## 5. Qualifications

- A. The Contractor shall be Milestone system Certified and shall submit evidence of their certification with their bid.
  1. If the Contractor is not properly qualified and certified in a particular system stated in this specification or shown in the project drawings, the Contractor is allowed to sub-contract the work performed on the particular system to a

properly qualified and certified sub-Contractor. This Sub-Contractor shall meet the same Contractor requirements as stated elsewhere in this section.

- B. Contractor shall supply information attesting to the fact their firm is an authorized product installer/integrator for the proposed system.
- C. Contractor shall supply information attesting to the fact that their installation and service technicians are competent factory trained personnel capable of maintaining the video security system and providing reasonable service time.
- D. Due to the nature of work involved and the interconnectedness to the City's existing Security Management System, Contractors planning to bid shall have been regularly engaged in the installation and maintenance of IP-based CCTV video, similar in size and scope that outlined herein for a period of no less than five years.
- E. Contractor shall provide a minimum of three references whose systems' experience are of similar complexity and have been installed and maintained by the security system integrator in the last five (5) years.
- F. The video camera system provided per this section shall be based on Niagara Framework (or "Niagara") a Java-based framework developed by Tridium Inc. Surveillance software and components without a Niagara Framework platform driver are unacceptable.
- G. Contractors desiring to bid shall provide the following:
  - 1. Descriptive statement identifying that the Contractor has participated in a prequalification process conducted by the Owner and has been deemed qualified to perform work on any City of Raleigh owned property at the time of bidding.
  - 2. Niagara Compatibility Statement (NiCS) describing various levels and types of building systems controls interoperability for proposed equipment to meet the specification and Owner's goal of an open system. This NiCS statement is to include:
    - a. Station Compatibility In
    - b. Station Compatibility Out
    - c. Tool Compatibility In
    - d. Tool Compatibility Out
  - 2. Include an overview of all system components and devices including network communication devices. Provide the manufacturer specifications for each system component to include any applicable software applications required.
- H. At the time of bidding, Contractors shall be licensed by all appropriate authorities (state, municipal and local) for the type of work to be performed. Contractors who have licenses or permits pending, relevant to this project, shall not be considered acceptable for bidding on this project.
- I. Acceptable Contractors / Camera Systems Integrators qualified to bid on the video security system hardware and software components and installation are as follows:

1. Envirocon
  2. Strategic Connections
  3. Premier Commercial Security
  4. Approved Equivalent Firms with staff that have passed a formal training program prior to being certified to sell and install the system and that possess certification that requires annual re-qualification.
  5. Interested firms should contact the City of Raleigh Integrated Facilities Services Department to submit their materials to become prequalified:  
  
Echo.Swanzey@raleighnc.gov, James.Walters@raleighnc.gov
  - J. Refer to Section 27 00 00 for additional requirements.
6. Pre-Construction Submittals
- A. Submittals shall be as follows:
    1. The contractor shall submit shop drawings for the project. Shop drawings shall include:
      - a. Point-to-point wiring diagrams for the entire system and detailing of each device location and all associated wire runs.
      - b. Provide a separate layout drawing for each equipment room / Drop location. The equipment room layout drawings shall show each component and detail the wiring for all devices connected to all components within the equipment rack.
      - c. Drawings shall also show the labeling of each cable connection point, each wire connected to the connection point and each cable leaving the rack or panel. The layout drawings shall indicate in detail the labeling of each component within the rack or associated panel including, but not limited to, power supplies, terminal strips, switches and Video Archivers.
  - B. Product data including manufacturer's technical data sheets on each product proposed.
  - C. Contractor shall submit detailed description of all equipment locations and mounting particulars. The Contractor shall describe coordination efforts that have been made or need to be made by the Contractor and the Owner for the installation to proceed on schedule in the manner described.
  - D. Contractor shall submit complete and detailed programming parameters of all video surveillance equipment to the Owner a minimum of 30 days prior to the development and implementation of the programming.
  - E. Contractor shall provide evidence that the power capacity is sufficient for the proper operation of the powered devices under maximum load where AC or DC power supplies are used for Class 1, 2, or 3 Power-Limited Circuits. Detailed calculations of the power requirements shall be acceptable for this purpose.
  - F. Manufacturer's User's manuals for operations, administration installation and maintenance.

- G. Refer to Section 27 00 00 for additional requirements.
- 7. Construction Progress Submittals
  - A. Refer to Section 27 00 00 for additional requirements.
- 8. Closeout Submittals
  - A. Refer to Section 27 00 00 for additional requirements.
  - B. As-built drawings
  - C. Training course materials.
  - D. Commissioning Test Plan and Check-off List.
  - E. As-built Drawings – kept up to date throughout system installation and reflecting all changes and additions made to the security systems.
- 9. General Summary
  - A. System shall include installation, configuration and integration of IP cameras into a server based NVR with client stations and storage as described in this section and on the drawings.
  - B. The Category 6 cabling to each camera shall be provided by the structured cabling Contractor. Patch cords for the IP cameras to the network switches and from the IP cameras to the data jack shall all be furnished and installed by this Contractor.
  - C. System installation shall include, but not be limited to, installation, programming, and configuration of system components as well as all associated software upgrades, patches, and maintenance for the first year.
  - D. Contractor is responsible for meeting with Owner's representative at time of camera installation to verify exact placement and view of each camera to ensure coverage area is as intended.
- 10. Drawing Sheets
  - A. All cameras are designated with a CAM symbol on the project drawings. Each camera has a corresponding label of the format “\*#-##”.
  - B. New Category 6 cabling shall be provided at each camera location.
- 11. Mounting and Installation
  - A. Contractor shall provide the appropriate mounting hardware for all ceiling types and wall types where cameras shall be located.

- B. Wall mounted 180/360 degree or multi-sensor cameras shall be mounted horizontally on a wall arm, gooseneck, parapet, pendant or other similar method.
- C. Exterior building mounted cameras shall be mounted on a wallarm/gooseneck if surface mounting is not possible.
- D. Cameras mounted in lay-in tile or drop ceiling shall have a tile support bridge with a steel support cable connected to structure to prevent tile sagging, theft, and vandalism.

12. Code and Standard Requirements

- A. All work and materials shall conform in every detail to the rules and requirements of the National Fire Protection Association, National Electric Code and any other codes as required by the Authority Having Jurisdiction.
- B. All materials shall be listed by UL and shall bear the UL label. If UL has no published standards for a particular item, then other national independent testing standards shall apply and such items shall bear those labels. Where UL has an applicable system listing and label, the entire system shall be solabeled.
- C. Cameras shall meet the following standards:
  - 1. MPEG-4:
    - a. ISO/IEC 14496-10 AVC (H.264)
  - 2. Networking:
    - a. IEEE 802.3af (Power over Ethernet)
  - 3. Network Video:
    - a. ONVIF Profile S or better

## 6 Part 2 - Products

2.1 Quality Assurance

- A. All product materials and equipment shall conform to grade, quality and standards specified. Materials, equipment and software shall be of the most recent version or production design available at the time of installation.

2.2 Approved Manufacturers:

The following manufacturers produce equipment or components which are included in this specification or which are approved for use by the City of Raleigh: (Inclusion on the list below does not imply that all products produced by the manufacturer are acceptable for use in the systems described within this specification.)

1. Altronix  
140 58th Street  
Brooklyn, NY 11220
2. Arecont Vision  
425 East Colorado Street 7th Floor  
Glendale, CA 91205
3. AXIS Communication  
Inc. 300 Apollo Drive  
Chelmsford, MA 01824
4. Dell Inc.  
1 Dell Way  
Round Rock, Texas 78682
5. Hanwha Techwin America  
(Samsung) 50 Frank W. Burr Blvd.  
Suite 43 Teaneck, NJ 07666
6. HP Inc.  
1501 Page Mill Road  
Palo Alto CA 94304
7. Life Safety Power  
750 Tower Road, Unit B  
Mundelein, IL 60060
8. Milestone Systems Inc  
8905 SW Nimbus Avenue Suite 400  
Beaverton, OR 97008
9. Panasonic Corporation  
Two Riverfront Plaza  
828 McCarter Hwy.  
Newark, NJ 07102
10. Seneca  
6040 Tarbell Rd

Syracuse, NY 13206

11. Transition Networks  
10900 Red Circle Drive  
Minnetonka, MN 55343

12. Veracity USA Inc.  
17000 Preston Road, Suite 120  
Dallas, TX 75248

13. Ditek Surge Protection  
One Ditek Center  
1720 Starkey Road  
Largo, FL 33771

14. Fluidmesh Networks  
81 Prospect Street  
Brooklyn, NY 11201

### 2.3 Video Monitoring System (VMS) General Requirements

- A. The VMS shall support video encoded in MJPEG and H.264 compression formats.
- B. The VMS shall synchronize to a common NTP server as the cameras and other security systems.
- C. The VMS shall synchronize with the Owner's Active Directory system and existing Milestone XProtect Corporate VMS.
- D. The VMS shall synchronize with the Owner's Niagara Framework based FMCS or to other existing FCMS via Ethernet using the BACnetIP protocol.
- E. The VMS shall synchronize with the Owner's Milestone XProtect Corporate management server located in the City's data center.
- F. The VMS system shall support all camera system components connected to the Owner's network whether local or remote and integrate with the existing Niagara based server located in the Engineering Services, Facilities and Operations Management office.

- G. The VMS shall be connected to the Owner's Exchange system for email based notifications.
- H. The Owner shall be able to receive all major and minor software updates at no additional cost for the duration of the project. At the completion of the project the Owner shall have the option to receive a final software update to the latest version before the project is paid in full. All NVRs shall be on a consistent version enterprise wide.
- I. The system shall be licensed for Enterprise installation.
- J. The system shall log all actions on a per user basis, all alarms and notifications on a per device basis and all errors and failures on a per device basis. These logs shall have the ability to be extracted to a document that can be emailed to an administrator.
- K. The NVR software shall launch automatically when operating system is booted and run in the background regardless if a user is logged on.
- L. The administrator shall be able to perform the following actions from the interface:
  - 1. Manage the system licenses.
  - 2. Define the client-to-server communications security settings.
  - 3. Configure the network communications hardware, including connection addresses and ports.
  - 4. Configure mail server SMTP settings and port. The Contractor shall coordinate with the Owner on email accounts to be added.
  - 5. Configure event and alarm history storage options.
- M. The software shall support the configuration and management of users and user groups. An administrator shall be able to add, delete, or modify a user or user group.
- N. The software shall support partitions and limit what users can view in the configuration database. The administrator shall be allowed to segment a system into multiple security partitions. The Contractor shall coordinate with the Owner on required partitions.
  - 1. A user who is given access to a specific partition shall only be able to view component within that partition.
  - 2. A user or user group can be assigned administrator rights over the partition.
  - 3. It shall be possible to specify user and user group privileges on a per partition basis.



- O. The software shall provide the ability to configure key frame (I-Frame) interval.
  - P. The software shall have the ability to assign independent pre- and post-alarm recording on a per camera basis.
  - Q. The software shall support the configuration of motion detection from the software platform and not through the cameras web interface.
  - R. The software shall have the ability to assign motion detection zones on a per camera basis.
  - S. The Archiver Recording Server shall have the ability to redirect audio/video streams to active viewing clients on the network using UDP or TCP.
  - T. Manufacturer:
    - 1. Milestone: Video Archiver(s) and Milestone Video Monitoring Workstation (City of Raleigh's Standard). **No substitutions**
- 2.4 Network Video Recorder (NVR)
- A. Server NVR's shall be leased through city of Raleigh provider for five years. Include three-month lead time for lease process to take place for equipment procurement.
  - B. The NVR shall be purpose built for surveillance, video optimized storage and management. The manufacturer shall guarantee performance with the system design at the time of lease.
  - C. The NVR shall have a dedicated SSD drive for the operating system and software and an additional spinning drive(s) for video recording. The failure of a recording drive shall not affect the operating system drive.
  - D. The NVR shall have an integrated DVD-RW drive and digital video output to connect to a KVM.
  - E. Each NVR shall synchronize to the City's Active Directory system for user management. The Contractor shall connect this unit directly to the Owner supplied secure network and coordinate with the City's IT Department for connection and IP information.
  - F. Contractor shall coordinate with the Owner for the connection of the Milestone equipment into the Owners Vykon system for any remote monitoring and managing. This unit shall be installed, configured, programmed and attached to the network by the Contractor.
  - G. The NVR shall be rack mount unless noted otherwise. The contractor shall provide with a 4-post to 2-post converter when installed on a 2-post rack.

H. The Contractor shall provide a monitor, keyboard and mouse with each NVR. Provide a KVM when the NVR is rack mounted.

I. Video recording system shall meet the following minimum parameters:

Integrated facility services reserve the right to utilize Milestone Husky product line where we deem appropriate.

## 7 Small Site

<b>Disk Config Type</b>	<b># of Cameras 12 (Includes 1 POS)</b>
Live DB Config	2 x 300 GB (600 GB)
Archive DB Config	8TB
OS and Application Volume - Disk Config	2 x 300 GB (600 GB )
<b>Server Config</b>	
Processor	Intel Xeon E-2234 3.6GHz
RAM	16 GB
NIC	2 GB NICs
OS	Windows Server 2019 x64 Standard/Datacenter

Basis of design – Dell R240

## 8 Medium Site

<b>Disk Config Type</b>	<b># of Cameras 20 + (Includes 2 POS)</b>
Live DB Config	2 x 300 GB (600 GB) - RAID 1/RAID 10
Archive DB Config	4x 8TB (32 TB)- RAID 5
OS and Application Volume - Disk Config	2 x 300 GB (600 GB ) - RAID 1
<b>Server Config</b>	
Processor	Intel Xeon E5-2603 v4
RAM	8 GB
NIC	2 GB NICs
OS	Windows Server 2019 x64 Standard/Datacenter

Basis of design – Dell R540

## 9 Large Site

<b>Disk Config Type</b>	<b># of cameras 40 + (Includes 4 POS)</b>
Live DB Config	4 x 300 GB (1.2 TB) RAID 1/RAID 10
Archive DB Config	6x 10 TB (60 TB) RAID 5
OS and Application Volume - Disk Config	2 x 300 GB (600 GB ) - RAID 1
<b>Server Config</b>	

Processor	2x Intel Xeon SP Bronze 3104
RAM	8 GB
NIC	2 GB NICs
OS	Windows Server 2019 x64 Standard/Datacenter

Basis of design – Dell R540

## 10 Extra Large Site

<b><u>Disk Config Type</u></b>	<b><i># of cameras 60 + (Includes 6 POS)</i></b>
Live DB Config	4 X 480 GB (1.8 TB) RAID 1/RAID 10
Archive DB Config	9 x 8 TB (72 TB) RAID 5
OS and Application Volume - Disk Config	2 x 300 GB (600 GB ) - RAID 1
<b><u>Server Config</u></b>	
Processor	Intel Xeon E5-2630 v4
RAM	8 GB
NIC	2 GB NICs
OS	Windows Server 2019 x64 Standard/Datacenter

Basis of Design – Dell R730XD

- A. The Milestone Video Archiver shall be configured with the latest version of XProtect Professional + Software.
- B. The NVR shall not be manufactured by the Contractor or a company the Contractor owns.
- C. The Contractor shall verify all server calculations with the criteria identified within these specifications. The Contractor shall also verify existing site conditions and provide the appropriate hardware to mount the NVRs in a secured, professional and workmanship like manner.

### 2.5 Video Workstation

- A. System overview
  - 1. If workstation is called for machine will be on city lease.
  - 2. Contractor shall provide, configure and install a video monitoring workstation within the facility as indicated on the drawings.
- B. Workstation shall consist of the following:

1. The workstations shall be a PC computer with Microsoft Windows 10 64-bit operating system minimum by the factory and with a 64-bit processor. The workstations shall require an external monitor, keyboard and mouse for operation.
  2. Provide and install the latest version of Milestone XProtect software on the workstation.
  3. As a minimum, the workstation shall have at a minimum 500-watt power supply using an 4th Generation Intel i7-4770 processor. Each workstation shall have 16 GB of RAM memory, a 16x DVD +/- RW drive, 6 USB 2.0 ports, a LAN connection 10/100/1000 MB Ethernet card., an onboard VGA Adapter with 128 MB of RAM and additional case fan cooling. The workstations shall be equipped with a PS-2 or USB wheel mouse and 101-key keyboard or shall meet the manufacturers minimum standard.
  4. The workstations shall be housed in a mid-height tower. It shall be constructed of steel and plastic materials. It shall also be operated indoors in a temperature range not to exceed 32 to 104° F (0 to 40° C) and a humidity range not to exceed 0 to 95% relative, in a non-condensing atmosphere. The workstations shall employ a Universal Voltage Power Supply requiring 105 - 240 VAC @ 50 - 60 Hz.
  5. The workstations shall have a minimum of internal solid-state hard-drive storage of 1TB.
  6. The workstation shall have Dual (2) NVIDIA GTX 970 PCI Express 3.0 graphics cards. These graphic cards shall have 4 GB of on board memory and shall support Microsoft Direct X Level 12\_1.
- C. Environmental Specifications
1. Operating Temperature Range: 32 to 104°F (0 to 40°C).
    - a. Operating Humidity Range: 0 to 95%, non-condensing.
- D. Certifications
1. CE
  2. UL Listed
- E. Monitor
1. Provide one (1) 23" LCD monitor with the workstation.
- F. The LCD monitor shall be a desktop monitor with optimum resolution of 1366 x 768. The viewing area shall be 508mm x 286 mm. The panel aspect ratio shall be 16:9 and support up to 1080i video format.
- G. The monitor shall have front panel controls for power on/off, source/enter, menu/exit, up, down.
- H. An LED indicator shall be located on the front of the monitor for power indication.
1. Minimum Monitor Electrical Specifications
    - i. Input Voltage: 100 to 240 VAC, 50/60Hz
    - ii. Input Interfaces: S-Video looping, RGB, Component, DVI and HDMI
    - iii. Power Consumption: 110 Watts
    - iv. Viewing Area: 508mm x 286mm.
    - v. Resolution: 1366 x 768.

- vi. Brightness: 500cd/m2.
- vii. Contrast Ratio: 700:1.
- viii. Backlight Type: 6 CCFL.
- ix. Viewing Angle: 160°/160°.
- x. Response Time: 8ms
- xi. Operating Temperature: 32° to 104°F
- xii. Certifications: CE Class A, FCC Class A, TUV Listed, and C-Tick.

13. Mapping Software

- A. The VMS software shall be provided with native integrated mapping software.
- B. The mapping software shall be compatible with PDF, JPEG and PNG.
- C. The Contractor shall provide a satellite level map showing all applicable City buildings. This map shall include drill down links to access the interior building floor plans where all interior and exterior devices are shown. There shall be links to jump back to the satellite view from each floor plan.
- D. The Contractor shall setup all interior maps to include all devices within the system.
- E. The Contractor shall be responsible to provide all the labor to setup these maps and place all the devices.
- F. The Contractor shall get sign-off from the Owner and Consultant on the finished maps.
- G. The Contractor shall obtain the building plans from the Owner or Design Consultant for their use.

14. Enterprise System Monitor (ESM)

- A. The Contractor shall provide and install ESM software to enable remote management of all NVRs.
- B. The ESM server shall be virtualized on the Owners new virtual machine. Coordinate with the IT department the exact system requirements, virtual machine setup and remote access.
- C. Provide with SQL Express if capable or a full version of SQL Server Standard if the manufacturer requires it.

15. VMS Video Storage

- A. Provide a minimum of thirty-one (31) days and ninety (90) days at point of sale of storage calculated at the following resolution and rates. Provide all hardware,

software and configuration needed to accomplish this.

1. The system shall be enabled for an automatic video cleanup at 31 days.

B. Record stream using Unicast RTP/TCP on stream 1.

C. Pre- and post-record buffer of 5 seconds.

1. Interior Cameras:

- a. 15 fps
- b. 1 keyframe (I-Frame) per second
- c. Max resolution
- d. 100% full time recording with motion metadata
- e. VBR or framerate priority with cap appropriate to resolution and quality
- f. H.264 Main Profile compression
- g. Smart codec enabled at a medium setting with a dynamic GoP of up to 8 seconds.
- h. 1024 Mbps per mega pixel data rates (ie 2048 Mbps for a 2mp camera). No bitrate cap when smart codecs are enabled or 8Mbps when no cap is not possible.
- i. Audio encoding (for cameras with microphones connected or built into them).

2. Exterior Cameras:

- a. 15 fps
- b. 1 keyframe (I-Frame) per second
- c. Max resolution
- d. 100% full time recording with motion metadata
- e. VBR or framerate priority with cap appropriate to resolution and quality
- f. H.264 Main Profile compression
- g. Smart codec enabled at a medium setting with a dynamic GoP of up to 4 seconds.
- h. 1024 Mbps per mega pixel data rates (ie 2048 Mbps for a 2mp camera). No bitrate cap when smart codecs are enabled or 8Mbps when no cap is not possible.

16. Cameras and Devices

## A. General:

1. All cameras and devices shall be time synced to the Owner's NTP server. Coordinate with the Owner to acquire the appropriate NTP address touse.
2. The contractor shall coordinate with the owner for IP addressing, network configuration, QoS and multicast network configuration.
3. The Contractor shall enable QoS on all cameras and intercoms for the video stream, audio stream, event/alarm data, management and metadata at the Owners request.
4. The system shall be configured for multicast. All cameras shall have a multicast Time To Live (TTL) setting of at least 64.
5. The Contractor shall select the appropriate mounting hardware for the situation and confirm with consultant and Owner prior to installation.
6. All cameras shall be equipped with remote autofocus or autoback focus with the exception of 180/360 degree cameras and encoded analog cameras.
7. Multi-sensor 180 and 360 cameras shall have each sensor optimally calibrated independently to the conditions.
8. All cameras shall be vandal proof and appropriate for the environment in which it is being installed.  
All cameras shall have the latest VMS recommended firmware installed and all cameras of the same model shall have matching firmware versions. The Contractor shall provide all necessary firmware upgrades to keep the Owner on the latest version throughout the duration of the project. At the completion of the project the Owner shall have the option to receive a final firmware update the latest version before the project is paid in full. All cameras of the same make and model shall be on the same firmware version.
9. The contractor shall coordinate with the Owner for IP addressing, network configuration and multicast network configuration.
10. All cameras regardless of manufacturer/model shall have a consistent username and non-standard password set. This shall be documented and provided to the Owner and consultant prior to inspections.
11. The camera requirements below represent general performance criteria. Approved equals will have slight differences in specifications. The Owner and Consultant have complete discretion to reject approved equals that stray toofar from the minimum requirements.

## B. Camera TYPE-1 CAM – Interior/Exterior Overview Low Light / WDR 5MP Vandal Dome IP camera shall be:

1. GENERAL DESCRIPTION
  - a. Video Compression and Transmission – The camera shall have the following

properties relating to the video signals it produces.

- H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously
    - H.265 and H.264 – frame rates to maximum 30 fps at all resolution
    - MJPEG – frame rates to maximum 30 fps Maximum frame rates are available at selected resolutions:H.265 and H.264: 30 fps is available at all resolutions. MJPEG: 30 fps is available
  - The camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
  - The camera shall be able to configure various resolution selections
    - 16:9 aspect ratio: 2560 x 1440, 1920 x 1080, 1280 x 720, 800 x 448, 640 x 360
    - 4:3 aspect ratio: 2560 x 1920, 1600 x 1200, 1280 x 960, 1024 x 768, 800 x 600, 640 x 480, 320 x 240,
    - 5:4 aspect ratio: 1280 x 1024, 720 x 576,
    - 3:2 aspect ratio: 720 x 480,
  - The camera shall be able to stream at least 10 independent video stream type using unicast protocol
  - The camera shall support multicast and unicast video streaming
  - The camera shall be able to configure Dynamic DNS (DDNS).
  - Smart Codec, Dynamic GOV, and Dynamic fps to efficiently manage bitrate of the video stream.
- b. Camera – The camera device shall have the following physical and performance properties:
- Dustproof, waterproof, and IP67 rated.
  - IK10 rated for protection against impacts.
  - True day/night operation with removable IR cut filter
  - Lens: 3.9 - 9.4 mm (2.4x) motorized varifocal lens
    - Low light level operation to 0.07 lux at F1.3 in color mode and 0 lux in black and white mode with IR LED on.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology
  - Integral IR illumination, providing effective visibility of 50m(164.04ft) at 0 Lux when activated in Black & White mode.
  - Configurable a privacy masking regions utilizing a 4 point polygon
  - The camera shall provide video display on smart phone (iPhone, Android) to adjust viewing angle, rotation and focus using a direct USB connection and/or Wi-Fi dongle.
- c. Intelligence and Analytics – The camera shall have a suite of integral intelligent operations and analytic functions to include:
- Motion detection with eight definable detection areas with 8 point polygonal zones, minimum / maximum object size.
  - Detection of logical events of specified conditions from the camera's video input
    - camera tamper (scene change)



- defocus detection
  - fog detection
  - motion detection with metadata
  - face detection
  - virtual area-based event (intrusion, enter/exit, appear/disappear, loitering)
  - virtual line-based event (directional detection, crossing)
  - Detection of logical events of specified conditions from the camera's audio input
  - sound classification (scream, gunshot, explosion, crashing glass)
  - Interoperability – The camera shall be ONVIF Profile S and G compliant.
  - The camera shall possess the following further characteristics:
    - Built-in web server, accessed via standard browsers including Internet Explorer, Firefox, Chrome & Safari
    - Dual edge recording slot like Micro SD/SDHC/SDXC memory card with configurable pre-alarm and post-alarm recording intervals
    - NAS recording option with configurable pre-alarm and post-alarm recording intervals
    - bi-directional audio
    - Alarms and notifications
      - alarm notification triggers:
        - motion detection
        - tampering detection
        - alarm input
        - defocus detection
        - fog detection
        - face detection
        - audio detection
      - video & audio analytics
      - network disconnection
    - available notification means upon trigger:
      - file upload via FTP and e-mail
      - notification via e-mail
      - record to local storage (SD card) or NAS storage
      - external output
      - move to DPTZ preset
    - Pixel Counter available in the web viewer.
    - PoE capable including heater by PoE
2. RECORDING PROFILE: 30day Archive, 15fps @Full Resolution, 35% Motion Events per 24hrs
  3. Basis of Design: Hanwha-Techwin XNV-8080R
  4. Provide flush mount kit and any additional mounting hardware as required for

each camera. Mounting hardware shall be approved for plenum ceiling and shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary.

C. Camera TYPE-2 – Interior Overview 5MP Vandal Dome IP camera shall be:

1. GENERAL DESCRIPTION

- a. Video Compression and Transmission – The camera shall have the following properties relating to the video signals it produces.
  - H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously.
    - H.265 and H.264 – maximum of 30fps at all resolution
    - MJPEG – maximum of 15fps
  - The camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
  - The camera shall be able to configure various resolution selections.
    - 16:9+ aspect ratio: 2592 x 1464, 800 x 448
    - 16:9 aspect ratio: 1920 x 1080, 1280 x 720, 640 x 360
    - 4:3 aspect ratio: 1280 x 960, 800 x 600, 640 x 480
      - 5:4 aspect ratio: 720 x 576
      - 3:2 aspect ratio: 720 x 480
  - The camera shall support unicast video streaming up to 6 users.
  - The camera shall support multicast video streaming
  - The camera shall be able to configure Dynamic DNS (DDNS). DDNS shall be provided with no additional cost by the manufacturer.
  - The camera shall provide WiseStream II, Dynamic GOV and Dynamic fps to efficiently manage bit rate of the video stream and reduce storage.
- d. Camera – The camera device shall have the following physical and performance properties:
  - Dustproof, waterproof, and IP66 rated.
  - IK10+ rated for protection against impacts.
  - True day/night operation with removable IR cut filter
  - Lens: 3.2 - 10.0mm Motorized Vari-focal
    - Low light level operation to 0.15 lux at F1.6 in color mode and 0 lux in black and white mode with IR LED on.
  - The camera shall be able to produce clear images in highly contrast scenes with multi-exposure wide dynamic range up to 120dB.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology.
  - The camera shall be able to configure 6 privacy masking areas with rectangles.
  - The camera shall provide video display on smart phone (iPhone, Android) to adjust viewing angle, rotation and focus.
- e. Intelligence and Analytics – The camera shall have a suite of intelligent analytic functions.
  - Motion detection with 4 definable detection areas with 4 point polygonal zones, and minimum/maximum object size.

- Detection of logical events of specified conditions from the camera's video
  - Tampering, Directional Detection, Virtual Line, Enter/Exit
  - Defocus Detection
  - Motion Detection
- f. Interoperability – The camera shall be ONVIF Profile S, G and T compliant.
- g. The camera shall possess the following further characteristics:
  - Built-in web server accessed via non-plugin browsers including Google Chrome, IE11, MS Edge, Mozilla Firefox and Apple Safari.
  - Micro SD/SDHC/SDXC memory card with configurable pre-alarm and post- alarm recording intervals
  - NAS recording option with configurable pre-alarm and post-alarm recording intervals
  - Alarms and notifications
    - alarm notification triggers:
      - Alarm input
      - Motion detection
      - Video analytics
      - Network disconnect
    - Available notification means upon trigger:
      - File Upload via FTP and E-mail
      - Notification via E-mail
      - Local storage (SD / SDHC / SDXC) or NAS recording at event triggers
      - External output
  - Pixel Counter available in the web viewer.
  - PoE capable including heater by PoE
- 2. RECORDING PROFILE: 30day Archive, 15fps @Full Resolution, 35% Motion Events per 24hrs
- 3. Basis of Design: Hanwha-Techwin QNV-8080R
- 4. Provide flush mount kit and any additional mounting hardware as required for each camera. Mounting hardware shall be approved for plenum ceiling and shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary.
- D. Camera TYPE-3 – Interior Transaction Area 5MP Vandal Dome IP camera shall be:
  1. GENERAL DESCRIPTION
    - a. Video Compression and Transmission – The camera shall have the following properties relating to the video signals it produces.
      - H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously.
        - H.265 and H.264 – maximum of 30fps at all resolution
        - MJPEG – maximum of 15fps
      - The camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
      - The camera shall be able to configure various resolution selections.

- 16:9+ aspect ratio: 2592 x 1464, 800 x 448
  - 16:9 aspect ratio: 1920 x 1080, 1280 x 720, 640 x 360
  - 4:3 aspect ratio: 1280 x 960, 800 x 600, 640 x 480
  - 5:4 aspect ratio: 720 x 576
  - 3:2 aspect ratio: 720 x 480
  - The camera shall support unicast video streaming up to 6 users.
  - The camera shall support multicast video streaming
  - The camera shall be able to configure Dynamic DNS (DDNS). DDNS shall be provided with no additional cost by the manufacturer.
  - The camera shall provide WiseStream II, Dynamic GOV and Dynamic fps to efficiently manage bit rate of the video stream and reduce storage.
- b. Camera – The camera device shall have the following physical and performance properties:
- Dustproof, waterproof, and IP66 rated.
  - IK10+ rated for protection against impacts.
  - True day/night operation with removable IR cut filter
  - Lens: 3.2 - 10.0mm Motorized Vari-focal
    - Low light level operation to 0.15 lux at F1.6 in color mode and 0 lux in black and white mode with IR LED on.
  - The camera shall be able to produce clear images in highly contrast scenes with multi-exposure wide dynamic range up to 120dB.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology.
  - The camera shall be able to configure 6 privacy masking areas with rectangles.
  - The camera shall provide video display on smart phone (iPhone, Android) to adjust viewing angle, rotation and focus.
- c. Intelligence and Analytics – The camera shall have a suite of intelligent analytic functions.
- Motion detection with 4 definable detection areas with 4 point polygonal zones, and minimum/maximum object size.
  - Detection of logical events of specified conditions from the camera's video
    - Tampering, Directional Detection, Virtual Line, Enter/Exit
    - Defocus Detection
    - Motion Detection
- d. Interoperability – The camera shall be ONVIF Profile S, G and T compliant.
- e. The camera shall possess the following further characteristics:
- Built-in web server accessed via non-plugin browsers including Google Chrome, IE11, MS Edge, Mozilla Firefox and Apple Safari.
  - Micro SD/SDHC/SDXC memory card with configurable pre-alarm and post- alarm recording intervals
  - NAS recording option with configurable pre-alarm and post-alarm recording intervals
  - Alarms and notifications
    - alarm notification triggers:
      - Alarm input
      - Motion detection

- Video analytics
    - Network disconnect
    - available notification means upon trigger:
      - File Upload via FTP and E-mail
      - Notification via E-mail
      - Local storage (SD / SDHC / SDXC) or NAS recording at event triggers
      - External output
    - Pixel Counter available in the web viewer.
    - PoE capable including heater by PoE
2. RECORDING PROFILE: 90day Archive, 15fps @Full Resolution, 35% Motion Events per 24hrs
3. Basis of Design: Hanwha-Techwin QNV-8080R  
Provide flush mount kit and any additional mounting hardware as required for each camera. Mounting hardware shall be approved for plenum ceiling and shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary.
- E. Camera TYPE-4 – Exterior Multi-Sensor 20MP Vandal Dome IP camera shall be:
1. GENERAL DESCRIPTION
- a. The camera shall provide multi directional view and produce video in various view mode.
  - b. The lenses(2M/5M) shall be selectable depending on customer's requirement at site.
  - c. Hallway view is available on CH1/2/3/4.
  - d. Each Channels support SD Card
  - e. It provides one single power supply for all of multi-channels
  - f. Video Compression and Transmission – The multi-directional camera shall have the following properties relating to the video signals it produces.
    - H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously
      - H.265 and H.264 [5MP] frame rates to max 30fps (60Hz) / 25fps(50Hz) at all resolution[2MP] frame rates to max 60fps (60Hz) / 50fps(50Hz) at all resolution
      - MJPEG – frame rates to maximum 30fps (60Hz) / 25fps (50Hz) at all resolution
    - The multi-directional camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, bit rate, and other video settings.
    - The multi-directional camera shall have four lenses and each lens shall provide the following resolutions.
      - [5MP] 2560x1920, 2560x1440, 1920x1080, 1600x1200, 1280x1024, 1280x960,1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 320x240

- The camera shall support unicast video streaming up to 20 users.
  - The camera shall support multicast video streaming up to 10 profiles.
  - The camera shall be able to configure Dynamic DNS (DDNS). DDNS shall be provided with no additional cost by the manufacturer.
  - The camera shall provide WiseStream II, Dynamic GOV and Dynamic fps to efficiently manage bit rate of the video stream and reduce storage.
- g. Camera – The multi-directional camera device shall have the following physical and performance properties:
- IK10 rated for protection against impacts.
  - Lens model:
    - SLA-5M3700Q(3.7mm Zoom Ratio)
    - SLA-5M4600Q(4.6mm Zoom Ratio)
    - SLA-5M7000Q(7.0mm Zoom Ratio)
  - IP66 for protection against dust and water.
  - The multi-directional camera shall be able to capture high contrast scenes with 150 dB for 2MP and 120dB for 5MP multi-exposure wide dynamic range.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology.
  - 32 privacy masking regions utilizing polygons
  - Supporting digital image stabilization the camera shall be able to measure movements in three axes and accurately enhance images from distortions caused by instability.
- h. Intelligence and Analytics – The multi-directional camera shall have a suite of integral intelligent operations and analytic functions to include:
- Motion detection with 8 definable detection areas with 8 point polygonal zones, and minimum/maximum object size.
  - Detection of logical events of specified conditions from the camera's video
    - Defocus detection
    - Fog detection
    - Directional detection
    - Motion detection
    - Appear/Disappear
    - Enter/Exit
    - Loitering
    - Tampering
    - Virtual line
    - Face detection
- i. Interoperability – The camera shall be ONVIF Profile S and T compliant.
- j. The multi-directional camera shall possess the following further characteristics:
- Built-in web server, accessed via standard browsers including Internet Explorer, Firefox, Chrome & Safari
  - Micro SD/SDHC/SDXC memory card options, with configurable pre-alarm and post-alarm recording intervals
  - Alarms and notifications
    - alarm notification triggers:

- Analytics
    - Network disconnect
    - available notification means upon trigger:
      - File Upload via FTP and E-mail
      - Notification via E-mail
      - Local storage (SD / SDHC / SDXC) or NAS recording at event triggers
    - Pixel Counter available in the web viewer.
    - PoE+ capable
    - This device has been verified using STP cable. The use of appropriate GND grounding and STP cable is recommended to effectively protect your product and property from transient voltage, thunderstroke, communication interruption.
  - 2. RECORDING PROFILE: 30day Archive, 15fps @Full Resolution, 35% Motion Events per 24hrs.
  - 3. Basis of Design: Hanwha-Techwin PNM-9002VQ
  - 4. Provide wall mount and/or corner mount kit and any additional mounting hardware as required for each camera. Mounting hardware shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary.
- F. Camera TYPE-5 – Interior/Exterior Overview 4K Vandal Dome IP camera shall be:
1. GENERAL DESCRIPTION
    - a. Video Compression and Transmission – The camera shall have the following properties relating to the video signals it produces.
      - H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously.
        - H.265 and H.264 – maximum of 30/25fps(60Hz/50Hz) at all resolution
        - MJPEG – maximum of 15/12fps(60Hz/50Hz)
      - The camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
      - The camera shall be able to configure various resolution selections.
        - 16:9 aspect ratio: 3840x2160, 3328x1872, 3072x1728, 2688x1520, 1920x1080, 1280x720, 800x448, 640x360
        - 4:3 aspect ratio: 2592x1944, 1600x1200, 1280x960, 1024x768, 800x600, 640x480, 320x240
        - 5:4 aspect ratio: 1280x1024, 720x576
        - 3:2 aspect ratio: 720x480
      - The camera shall support unicast video streaming up to 20 users.
      - The camera shall support multicast video streaming up to 10 profiles.
      - The camera shall be able to configure Dynamic DNS (DDNS). DDNS shall be provided with no additional cost by the manufacturer.
      - The camera shall provide WiseStream II, Dynamic GOV and Dynamic fps to efficiently manage bit rate of the video stream and reduce storage.

- b. Camera – The camera device shall have the following physical and performance properties:
  - IK10+ rated for protection against impacts.
  - True day/night operation with scheduling and options for external devices.
  - Lens: 2.8-8.4mm motorized varifocal
    - Low light level operation to 0.05 lux at F1.2 in color mode and 0 lux in IR mode.
  - The camera shall be able to produce clear images in highly contrast scenes with multi-exposure wide dynamic range.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology.
  - The camera shall be able to configure 32 privacy masking areas with polygonal zones.
  - The camera shall have the defog feature to remove fogginess of scene which can be triggered automatically from the fog detection event.
  - The camera shall provide video display on smart phone (iPhone, Android) to adjust viewing angle, rotation and focus.
- c. Intelligence and Analytics – The camera shall have a suite of intelligent analytic functions.
  - Motion detection with 8 definable detection areas with 8 point polygonal zones, and minimum/maximum object size.
  - Motion detection hand-over to PTZ cameras. The camera shall be able to call a preset of PTZ camera when motion event is triggered.
  - Detection of logical events of specified conditions from the camera's video
    - Defocus detection
    - Directional detection
    - Motion detection
    - Digital auto tracking
    - Appear/Disappear
    - Enter/Exit
    - Loitering
    - Tampering
    - Virtual line
    - Audio detection
    - Sound classification
    - Shock detection
    - Face/upper body detection
    - Fog detection
  - Business Intelligence features
    - People counting
    - Queue management
    - Heatmap
  - Detection and classification of the following sound.
    - Scream
    - Gunshot
    - Explosion
    - Crashing glass



- Interoperability – The camera shall be ONVIF Profile S / G and T compliant.
  - The camera shall possess the following further characteristics:
    - Built-in web server, accessed via non-plugin browsers including Google Chrome, MS Edge, Mozilla Firefox and Apple Safari.
    - The camera shall provide streaming to multiple smart phones with DDNS provided freely from the manufacturer. In addition, the application shall be available for both iOS and Adroid, free of charge with search keyword, 'Wisenet Mobile'.
    - Micro SD/SDHC/SDXC memory card with configurable pre-alarm and post-alarm recording intervals
    - NAS recording option with configurable pre-alarm and post-alarm recording intervals
    - Alarms and notifications
      - alarm notification triggers:
        - Analytics
        - Network disconnect
        - Alarm input
      - available notification means upon trigger:
        - File Upload via FTP and E-mail
        - Notification via E-mail
        - Local storage (SD / SDHC / SDXC) or NAS recording at event triggers
        - Alarm output
        - PTZ preset
        - Handover
        - Audio playback
    - Pixel Counter available in the web viewer.
    - PoE capable
    - IP66/IP67/IP6K9K, IK10+, NEMA4X
    - This device has been verified using STP cable. The use of appropriate GND grounding and STP cable is recommended to effectively protect your product and property from transient voltage, thunderstrike, communication interruption.
2. RECORDING PROFILE: 30day Archive, 15fps @ Full Resolution, 35% Motion Events per 24hrs
3. Basis of design: Hanwha-Techwin XNV-9082R
4. Provide wall mount and any additional mounting hardware as required for each camera. Mounting hardware shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary.
- G. Camera TYPE-6 – Exterior Overview 4K Bullet IP camera shall be:
1. GENERAL DESCRIPTION
- a. Video Compression and Transmission – The camera shall have the following

properties relating to the video signals it produces.

- H.265, H.264 and MJPEG compression, each derived from a dedicated encoder and capable of being streamed independently and simultaneously.
    - H.265 and H.264 – maximum of 30/25fps(60Hz/50Hz) at all resolution
    - MJPEG – maximum of 15/12fps(60Hz/50Hz)
  - The camera shall be able to configure up to 10 independent video stream profiles with differing encoding, quality, frame rate, resolution, and bit rate settings.
  - The camera shall be able to configure various resolution selections.
    - 16:9 aspect ratio: 3840x2160, 3328x1872, 3072x1728, 2688x1520, 1920x1080, 1280x720, 800x448, 640x360
    - 4:3 aspect ratio: 2592x1944, 1600x1200, 1280x960, 1024x768, 800x600, 640x480, 320x240
    - 5:4 aspect ratio: 1280x1024, 720x576
    - 3:2 aspect ratio: 720x480
  - The camera shall support unicast video streaming up to 20 users.
  - The camera shall support multicast video streaming up to 10 profiles.
  - The camera shall be able to configure Dynamic DNS (DDNS). DDNS shall be provided with no additional cost by the manufacturer.
  - The camera shall provide WiseStream II, Dynamic GOV and Dynamic fps to efficiently manage bit rate of the video stream and reduce storage.
- d. Camera – The camera device shall have the following physical and performance properties:
- IK10 rated for protection against impacts.
  - True day/night operation with scheduling and options for external devices.
    - Low light level operation to 0.05 lux at F1.2 in color mode and 0 lux in IR mode.
    - Lens: 2.8~8.4mm(3x) motorized varifocal
  - The camera shall be able to produce clear images in highly contrast scenes with multi-exposure wide dynamic range.
  - The camera shall support digital noise reduction using both 2D and 3D noise reduction technology.
  - The camera shall be able to configure 32 privacy masking areas with polygonal zones.
  - The camera shall have the defog feature to remove foggiess of scene which can be triggered automatically from the fog detection event.
  - The camera shall provide video display on smart phone (iPhone, Android) to

adjust viewing angle, rotation and focus.

- e. Intelligence and Analytics – The camera shall have a suite of intelligent analytic functions.
  - Motion detection with 8 definable detection areas with 8 point polygonal zones, and minimum/maximum object size.
  - Motion detection hand-over to PTZ cameras. The camera shall be able to call a preset of PTZ camera when motion event is triggered.
  - Detection of logical events of specified conditions from the camera's video
    - Defocus detection
    - Directional detection
    - Motion detection
    - Digital auto tracking
    - Appear/Disappear
    - Enter/Exit
    - Loitering
    - Tampering
    - Virtual line
    - Audio detection
    - Sound classification
    - Shock detection
    - Face/upper body detection
    - Fog detection
  - Business Intelligence features
    - People counting
    - Queue management
    - Heatmap
  - Detection and classification of the following sound.
    - Scream
    - Gunshot
    - Explosion
    - Crashing glass
- f. Interoperability – The camera shall be ONVIF Profile S / G and T compliant.
- g. The camera shall possess the following further characteristics:
  - Built-in web server accessed via non-plugin browsers including Google Chrome, MS Edge, Mozilla Firefox and Apple Safari.

- The camera shall provide streaming to multiple smart phones with DDNS provided freely from the manufacturer. In addition, the application shall be available for both iOS and Adroid, free of charge with search keyword, 'Wisenet Mobile'.
  - Micro SD/SDHC/SDXC memory card with configurable pre-alarm and post-alarm recording intervals
  - NAS recording option with configurable pre-alarm and post-alarm recording intervals
  - Alarms and notifications
    - alarm notification triggers:
      - Analytics
      - Network disconnect
      - Alarm input
    - available notification means upon trigger:
      - File Upload via FTP and E-mail
      - Notification via E-mail
      - Local storage (SD / SDHC / SDXC) or NAS recording at event triggers
      - Alarm output
      - PTZ preset
      - Handover
      - Audio playback
  - Pixel Counter available in the web viewer.
  - PoE capable
  - IP66/IP67, IK10, NEMA4X
2. RECORDING PROFILE: 30day Archive, 15fps @ Full Resolution, 35% Motion Events per 24hrs
  3. Basis of design: Hanwha-Techwin XNO-9082R
  4. Provide wall mount and any additional mounting hardware as required for each camera. Mounting hardware shall have knock outs for conduit connectivity with no exposed wiring. Provide additional mounting equipment as necessary
17. Ethernet with PoE Over 75 Ohm Coaxial Cable
- A. The contractor shall provide an Ethernet over coaxial cable converter for any camera mounted in an area without local power supply availability or at other locations as required.

- B. Each camera shall receive its own dedicated transmitter and receiver unit. Splitting multiple cameras through a single Tx/Rx pair is not allowed.
  - C. The Contractor shall coordinate with the Elevator Contractor for installation as required.
  - D. Shall support multi-cast networks.
  - E. Provide full duplex 10/100Base-T.
  - F. Shall support IEEE 802.3af (PoE) and IEEE 802.3at (PoE+) on input and output.
  - G. Can support 802.3at at 20 watts at a minimum of 1,000 feet of 20awg RG-59.
  - H. Provide with optional power supply when PoE switch is not available.
  - I. Provide with wall mount or rack mount bracket as required.
  - J. Manufacturer:
    - 1. Veracity Highwire Powerstar
      - a. Provide with dedicated power supply as required.
    - 2. Or approved equal
18. Ethernet with Power over Ethernet (PoE) UTP Surge Suppressor
- A. The Contractor shall provide and install a surge protector for all exterior mounted cameras. Cameras that are not attached to the building or reach above the building roof line shall have a surge protector at the camera side and interior termination side.
  - B. There shall be a minimum of a 36" shielded patch cable from the surge protector to the device to allow for adequate clamping time.
  - C. When protector is mounted in interior, dry or weather sealed enclosure:
    - 1. Shielded RJ-45 jacks and ground stud
      - a. Connect ground directly to ground bar (TMGB/TGB) or ground.
      - b. Do not use shielded cable on the output.
    - 2. Maximum supported data rate: 10,000Mb/s (10 Gigabit)

3. Supports IEEE 802.3af (PoE)
  4. Max current rating of 30A per pair.
  5. UL 497B listed
  6. 110 punch down in and 110 punch down out.
    - a. 110 punch down in and RJ-45 out may be used when output is connected directly to a switch only when approved in specific situations.
  7. Manufacturer:
    - a. Ditek DTK-110C6APOE
    - b. Or approved equal
- D. When protector is exposed to weather or moisture:
1. Shielded RJ-45 jacks and ground connection.
    - a. Connected ground connection directly to ground.
    - b. Do not use shielded cable on the output.
  2. Outdoor-rated NEMA 4X enclosure
  3. Maximum supported data rate: 1,000Mb/s (1 Gigabit)
  4. Supports IEEE 802.3af, 802.3at (PoE) and PoE+ up to 144 watts per port.
  5. Max current rating of 20,000A per pair.
  6. UL 497B listed
  7. RG-45 in and RJ-45 out.
  8. Provide with appropriate mounting kit.
  9. Manufacturer:
    - a. Ditek DTK-MRJPOEX
    - b. Or approved equal
19. Ethernet UTP Surge Suppressor (No PoE)
- A. The Contractor shall provide and install a surge protector for all exterior mounted cameras. Cameras that are not attached to the building or reach above the building roof line shall have a surge protector at the camera side and interior termination side.
  - B. There shall be a minimum of a 36" shielded patch cable from the surge protector to the device to allow for adequate clamping time.
  - C. When protector is mounted in interior, dry or weather sealed enclosure:

1. Shielded RJ-45 jacks and ground stud
    - a. Connect ground directly to ground bar (TMGB/TGB) or ground.
    - b. Do not use shielded cable on the output.
  2. Maximum supported data rate: 10,000Mb/s (10 Gigabit)
  3. Max current rating of 100A per pair.
  4. UL 497B listed
  5. 110 punch down in and 110 punch down out.
    - a. 110 punch down in and RJ-45 out may be used when output is connected directly to a switch only when approved in specific situations.
  6. Manufacturer:
    - a. Ditek DTK-110C6A
    - b. Or approved equal
20. Surge Protection for Low Voltage AC/DC power
- A. The Contractor shall provide a surge protector for all exterior devices being supplied by low voltage power. This does not include devices directly connected to a building where the risks of surges are negligible.
  - B. There shall be a minimum of a 36" shielded cable from the surge protector to the device to allow for adequate clamping time.
  - C. When protector is mounted in interior, dry or weather sealed enclosure:
    1. Nominal voltage rating of 24V AC/DC. Provide correct module per required voltage level if different from 24V.
    2. 20,000A surge current rating.
    3. Protects 2-pair per module.
    4. Accepts up to 10AWG cable
    5. Connect directly to ground.
    6. UL 497B listed
    7. Provide quantity of modules as required for the application.
    8. Provide base mounting plate as required for the application.
    9. Manufacturer:
      - a. Ditek DTK-2MB Mounting Base

- b. Ditek DTK-2MHL P24B Surge Module
  - c. Or approved equal
- 21. Surge Protection for 120 VAC power
  - A. The Contractor shall provide a surge protector for all 120VAC supplied power supplies.
  - B. There shall be a minimum of a 36" of cable from the surge protector to the load to allow for adequate clamping time.
  - C. When the protector is mount in an interior or exterior location:
    - 1. Nominal voltage rating of 120VAC, single-phase, 20A continuousload.
    - 2. Series connected.
    - 3. 54,000 A surge current rating.
    - 4. 35db of EMI/RFI filtering.
    - 5. UL 1449 Type 2 SPD listed
    - 6. UL 1289 EMI/RFI Noise Filtering listed.
    - 7. LED indicator.
    - 8. Form C dry contacts for monitoring.
    - 9. Include with NEMA 4X enclosure.
    - 10. Maintain a minimum of 3' of cable from the surge protector to theload.
    - 11. Manufacturer:
      - a. Ditek DTK-TSS4D
      - b. Or approved equal
- 22. Managed Power Supplies
  - A. The Contractor shall provide and install a power supply for exterior cameras, fiber optic media converters and other devices which require adedicated power supply capable of outputting 24VAC and 28VAC.
  - B. The Contractor shall connect each device to an output according to the voltage drop to stay as close to 24VAC at the end point as possible based on actual field measurements.
  - C. The power supply shall have network modules capable of controlling each individual output via a web interface. Each power distribution module shall be clearly labeled



as a 24VAC output or 28VAC output.

- D. The power supply shall be grounded with a 6awg cable.
- E. The Contractor shall provide (1) Altronix BC300 enclosure, (1) T2428300 transformers and (1) LinQ8PD networked power distribution modules. Alternate Altronix configurations may be submitted.

## 23. Fiber Optic Media Converters

The contractor shall provide fiber optic media converters for locations that require fiber optic cable due to distances that exceed copper cable distance limitation or as identified on the drawings. Provide a rack mount chassis when multiple outputs are required.

- A. Single port, industrial interior/exterior
  - 1. 10/100 Ethernet full duplex
  - 2. Operating temperature of -40 - 167 degrees F
  - 3. 1300 multimode ST fiber connectors
  - 4. Link budget of 12.0 dB
  - 5. DIN Rail mountable, provide with appropriate brackets asrequired
  - 6. AC version requires 22-36 VAC. Provide with power supply whererequired.
  - 7. Mount in NEMA rated enclosure when installed in theexterior
  - 8. Manufacturer:
    - a. Transition Networks (AC version) M/E-ISW-FX-01AC(ST)
    - b. Or approved equal
- B. Rack mount multi-port, card based headend
  - 1. 10/100 Ethernet, Class A, full duplex
  - 2. 1300 multimode ST fiber connectors
  - 3. Link budget of 11.0 dB
  - 4. Provide slot quantity as required
  - 5. 120VAC power connection
  - 6. Manufacturer:

- a. Slide in module - Transition Networks C2210-1011
- b. Chassis - Transition Networks ION219A series
- c. Or approved equal

24. Wireless Transmitters/Receivers

- A. The Contractor shall provide a wireless point to multi-point system where required.
- B. The system shall use unlicensed frequencies.
- C. The units shall be managed with a web interface for configuration.

The Contractor shall provide the appropriate throughput licensing based on the camera streaming bandwidth requirements noted within these specifications.

- D. The Contractor shall provide the appropriate mounting hardware rated for the appropriate wind, snow and ice loading.
- E. All hardware shall be grounded.
- F. When point to multi-point is required the Contractor shall utilize a base station with a 120-degree horizontal beamwidth. Point to point may utilize edge units with a 33-degree horizontal beamwidth.
- G. Manufacturer:
  - 1. Fluid Mesh FM3200BASE for base units
  - 2. Fluid Mesh FM1200VOLO for edge units
  - 3. Or approved equal

## 11 Part 3 - Execution

### 3.1 Security Cameras and Video Monitoring System

- 1. Contractor shall provide all necessary wiring, cabling, conduit, labor, tools, equipment, licenses and ancillary materials required to furnish and install new security cameras and video monitoring system (Milestone Video Archiver(s) and Milestone Video Monitoring Workstation) as indicated on the drawings and in these specifications. Contractor shall also connect new cameras to video monitoring system and City's existing security network and coordinate testing and final system configuration.

- 3.2 Requirements are indicated elsewhere in this specification for work including, but not limited to:
1. Cameras, associated power supplies, media convertors and data cabling and equipment to be provided and installed by the Contractor.
    - a. Connection by the Contractor of the new Video Archiver(s), Video Monitoring Workstation and security cameras to the Owner's security network.
      - i. The Contractor shall coordinate with the Owner for specific network standards and for local area network (LAN) connections.
  2. All cameras shall be connected to the facility's new Milestone Video Archiver(s) for local monitoring and recording. The Contractor shall be responsible for connecting all cameras to the Owner's network and for coordinating and configuring the cameras to be viewable through the Milestone Video Monitoring Workstations.
    - a. The new Milestone Video Archiver(s) shall be an extension of the Owner's existing Milestone Video Management System.
    - b. The Contractor shall provide all Milestone and camera integration licenses necessary to integrate the Milestone Video Management System into the Owner's Vykron Access Control System.
    - c. It is the Contractor's responsibility to coordinate any network, software and hardware requirement(s) needed to connect any device or server to the Owner's network. If any device or server does not meet the Owner's network requirement specification, the Contractor shall be responsible to provide an adequate replacement or bring the delinquent device up to the Owner's required specification before connecting the device to the Owner's network.
- 3.3 The extent of security system work for the project includes, but is not limited to, the following under the Base Bid:
- a. Installation of new digital video surveillance system cameras, media convertors, Milestone Video Archivers, Milestone Workstations and associated equipment and hardware to provide a fully functioning video surveillance system.
  - b. Miscellaneous terminations, programming, licenses and updates to extend up to the Owner's final acceptance of the installed system.
- 3.4 The Milestone Video Archivers shall provide management, control, recording and monitoring of all new facility video surveillance system cameras.
- 3.5 The Contractor shall not have a password to access the Enterprise server. The Contractor shall only have local restricted access.
- 3.6 Camera installation and work required to bring new security equipment up to operational status for final acceptance by the Owner shall include but not be limited to the following:
- a. Determination of hardware, software, and operations requirements for implementation.
  - b. Set up and configuration of parameters on each camera for recording on the

## Video Archivers

- c. Set-up of optimum recording parameters on each Video Archiver.
  - d. Testing of video systems operations based on a camera by camera walkthrough.
  - e. Organizing and conducting end-user training.
- 3.7 The Contractor shall provide onsite professional services to assist in the initial setup and programming of all systems specified within this specification.
- 3.8 The Contractor shall coordinate conduit routes and locations with the Electrical Contractor before conduits are to be installed.
- 1. The Contractor shall coordinate any and all concrete and anchoring information with the General Contractor before the installation of concrete footers for any planned exterior pole supports for cameras.
  - 2. All cabling shall be provided by the Contractor.
  - 3. Contract close out submittals to include:
  - 4. Training course materials – as described in related Section 27 00 00
  - 5. Commissioning Test Plan and Check-Off List
  - 6. As-built drawings to include elementary and wiring diagrams of the security systems to be used for record drawings.
- 3.9 Testing
- A. Refer to Section 27 00 00 for additional requirements.
  - B. Site tests shall be performed with a representative of the Owner in attendance.
  - C. Tests shall be performed on each major component of the Video Management System.
  - D. Prior to energizing or testing the system, ensure the following:
    - 1. All products are installed in a proper and safe manner per the manufacturer's instructions.
    - 2. Dust, debris, solder, splatter, etc., is removed.
    - 3. Cable is dressed, routed, and labeled; connections are consistent with regard to polarity.
    - 4. All products are neat, clean, and unmarred, and parts are securely attached.
  - E. Contractor shall ensure that each device in the security system is functioning

normally and in such a manner as to meet the functional and performance requirements in this specification.

### 3.10 Training

- A. Refer to Section 27 00 00 for additional requirements and information related to the following:
- B. Provide system operations, administration, and maintenance training by factory-trained personnel qualified to instruct.
  - 1. The Contractor shall provide scheduled and dedicated training time for administration and investigation for the projectsite.
  - 2. The Contractor shall provide an allotment of training hours per Section 27 00 00 for the administration and use of the security system and VMS platform.
  - 3. Provide printed training materials for each trainee, including product manuals, course outline, workbook or student guides, and written examinations for certification.
  - 4. Provide hands-on training with operational equipment.
  - 5. Training shall be oriented to the specific system being installed under this contract as designed and specified.
  - 6. Contractor shall provide all necessary documentation of system operating parameters prior to scheduled trainingsessions.

### 3.11 Warranty

- A. Refer to Section 27 00 00 for additional requirements.

### 3.12 Installation Practices

- A. All services provided shall be professional and conform to the highest standards for safety and industry practices. The Owner reserves the right to halt any installation due to poor workmanship. All work shall be defect free, and the installer shall replace, at their expense, any work found to be defective.
- B. The Owner reserves the right to halt any installation due to failure of Contractor to observe installation-free periods due to instructional or administrative requirements. To the maximum extent possible, the Owner will provide advance notice of such periods.
- C. Contractor is responsible for providing a complete and functional video surveillance system.

- D. All manufactured items, materials, and equipment shall be applied, installed, connected, erected, used, and adjusted as recommended by the manufacturers, or as indicated in their published literature, unless specifically noted herein to the contrary.
- E. Contractor shall follow these standards and approved submittals for locations of power supplies. The Owner intends to limit the number and location of power supplies to facilitate more effective long-term support and maintenance of the system.

### 3.13 Coordination

- A. Contractor shall provide up to 12 hours of scheduled and dedicated coordination time to assist Owner with camera positioning and coordination as requested by Owner or Consultant.

### 3.14 Installation Appearance and Equipment Organization

All cables and equipment terminating at panels frames shall be vertically straight, with no cables crossing each other, from twelve inches inside the ceiling area to the termination block.

- A. All cable bundles shall be combed and bundled to accommodate individual termination block rows and panels.
- B. For any given telecom room, a horizontal and vertical alignment for all mounting hardware will be maintained to provide a symmetrical and uniform appearance to the distribution frame.
- C. All surface-mounted devices shall be firmly secured level and plumb.
- D. All rack mount equipment shall be securely installed.

### 3.15 Hardware Layout

- A. Hardware positioning and layout shall be reviewed and approved by the Owner prior to construction. The review does not exempt Contractor from meeting any of the requirements stated in this document.

### 3.16 VMS Installation Practices

- A. Verify that the manufacturer approved server hardware, OS meets the Owner's IT standards prior to ordering.

- B. Coordinate server power, cooling, and mounting requirements with Owner prior to installation.
- C. Coordinate virus scan/security software requirements with Owner and manufacturer prior to installation.

### 3.17 Device Cabling/Wiring Installation Practices

- A. All external wire and cables shall be supported at least every five feet from the structure or as required to maintain not more than 12" cable sag between supports and without over tensioning the cables. Provide j-hooks as needed where cable tray or raceway is not available.
- B. This Contractor shall coordinate installation with Division 27 05 00. Cabling Contractor to ensure there is at least 2-inches of physical separation between security cabling and voice/data cabling throughout cable path. Voice/data cabling Contractor has first claim to cable tray.
- C. All cables, regardless of length, shall be labeled within 18" of both ends with an identifier that is keyed to the door, room, or corridor number as identified.
- D. All cables shall have 6-foot service loops neatly coiled in the equipment room. During initial cable rough-in, this Contractor shall have sufficient slack to route anywhere within the equipment room.
- E. Cabling shall be adequately supported with Velcro wire wraps and horizontal support cable managers fastened to rack frame. Cables shall be dressed in a neat and orderly fashion. Any cabling or equipment installation that is deemed unacceptable by the Owner or Consultant shall be replaced or corrected by the Contractor at no additional cost. **Plastic zip ties are not allowed.**
- F. All cables are to run at right angles to the structure, placed above the ceiling in halls or corridors.
- G. Cables shall not run above red iron joist.
- H. Contractor shall make every effort to conceal wiring and other apparatus into walls, floors, and ceilings, assuming code and good engineering practice allows and suggests.
- I. Ties and straps shall be installed snugly without deforming cable insulation. Ties shall be spaced at uneven intervals not to exceed four feet. No sharp burrs shall remain where excess length of the cable tie has been cut.
- J. Contractor shall notify Owner immediately if obstruction or hazard is discovered in a pathway provided by others.

- K. Cable shall be stored and handled to assure that it is not stretched, kinked, crushed, or abraded in any way. Bend radiuses shall meet manufacturer specifications and/or recommendations. Cable shall not be installed in ambient temperatures or moisture conditions above or below the manufacturer's rating.
- L. No splices shall be installed in any cable.

### 3.18 Cable Termination

- A. Termination hardware (blocks and patch panels) positioning and layout shall be reviewed and approved by the Owner prior to construction. The review does not exempt Contractor from meeting any of the requirements stated in this document.

### 3.19 Fire Stopping

- A. Fire stopping of openings between floors, fire-rated walls, and smoke-rated walls, created by others for this Contractor to pass cable through, shall be the responsibility of this Contractor. Sealing material and application of this material shall be accomplished in such a manner that is acceptable to the local fire and building authorities having jurisdiction over this work.
- B. Any openings created by or for this Contractor and left unused shall be sealed up by this Contractor.
- C. This Contractor shall be responsible for creating a waterproof seal in and around any openings that this Contractor creates from the structure to the outside environment.

### 3.20 System Inspection

- A. Contractor shall coordinate with project representative for inspection after Contractor has completed testing of entire system.
- B. Contractor shall have trained Contractor representative and testing equipment on site during inspection to assist with spot verification of tests.
- C. Contractor shall verify with Project Representative the precise positioning of camera aim and shall make fine adjustments as requested.

### 3.21 Labeling

- A. Contractor shall neatly label all security devices and cabling at both ends. All labels shall be on Project as-built drawings. Coordinate with the Owner to verify preferred camera housing labelling location prior to final label installation.



### 3.22 Camera Installation

- A. Contractor shall field verify all camera locations and positioning with Owner prior to installation.

### 3.23 Documentation

- A. Upon completion of the installation, Contractor shall provide full documentation sets to the Consultant for approval as described in section 27 60 00. All documentation shall become the property of the Owner.
- B. Documentation shall include the additional specific items detailed in the subsections below:
  - 1. Contractor shall provide hard copy and electronic forms of the final test results.
  - 2. Contractor shall provide milestone configuration back up for system installed.
  - 3. Contractor shall provide a completed configuration report from installed Milestone system. Provide report electronically.
  - 4. Contractor shall provide a document including the following:
    - a. Camera label/identifier
    - b. Location of each drop by orientation/permanent landmark in the room
    - c. Contractor shall provide accurate as-built Construction Drawings. The drawings are to include cable routes and device locations.

### 3.24 Pre-Checkout

The Contractor shall demonstrate the following to Owner during system demonstration.

- 1. The cameras are fully installed and functional.
- 2. Camera adjustments are complete to the Owner's satisfaction including.
  - a. Aim/Zoom
  - b. Focus/Back Focus
  - c. Masking Zones
  - d. Motion Detection Zones
  - e. Pre-Sets/Tours

### 3.25 Final Acceptance

- A. In addition to closeout and final testing requirements in sections 27 00 00 and 27 60 00, This Contractor shall demonstrate the following before final

approval.

1. Owner training is complete.
2. Punch list items are complete.
3. As-built documentation is complete and submitted to Owner/Consultant.

3.26 Final Procedures

- A. Perform final procedures in accordance with section 27 60 00.

**End of Section 28 20 00**