Request for Proposals for the Incline Railway Upper Station Modifications and Repairs for the

Chattanooga Area Regional Transportation Authority (CARTA)

I. Introduction

The Chattanooga Area Regional Transportation Authority (CARTA) is requesting written proposals from qualified firms for Incline Railway Lower Station restrooms and Upper Station platform modifications and concrete repairs. Refer to the Engineer's Specifications for additional information.

II. Scope of Services

CARTA intends to hire a prime contractor who will directly oversee the work of subcontractors, directly employ the primary project manager and superintendent, and directly employ at least some of the construction trade workers used on the job. CARTA will not hire a prime contractor who does not perform at least some of the work directly.

See the Engineer's Specifications, and the Engineering Drawings for technical specifications and details regarding the specific details of CARTA's project.

Other Documents include, but are not necessarily limited to, CARTA's RFP, Davis-Bacon Wage Rates, and CARTA's General, Special Contract Provisions, and Tennessee State contract clauses.

III. Proposal Contents

- A. A brief description (1-2 pages) of the qualifications of the person or firm submitting the proposal.
- B. A detailed statement on the tasks and trades to be done in-house and those to be contracted. Also include names of proposed subcontractors and a list of Disadvantaged Business Enterprise subcontractors. CARTA has a DBE goal of 6% for this work.
- C. References for similar and/or representative projects from the last five years.
- D. Name and qualifications of lead person and principal overseer of the project.
- E. Price proposal.
- F. Detailed construction schedule.

IV. Guidelines for Submitting Proposals

One original and an electronic copy of each firm's written proposal on the firm's letterhead must be received at CARTA by 2:00 p.m. on March 22, 2024. Proposals must be contained in a sealed envelope and should be addressed to:

Annie Powell CARTA 1617 Wilcox Boulevard Chattanooga, TN 37406

Telephone: 423-629-1411 Fax: 423-698-2749

e-mail: anniepowell@gocarta.org

The outside of the package should be clearly marked with the words "Incline Railway Lower Station Restrooms and Upper Station Modification and Repairs Proposal."

V. Evaluation Criteria

The following criteria will be used in evaluating proposals:

Cost proposal 40 percent
 Qualifications and references of firm and staff proposed for Project (including subcontractors)
 Completion date and construction timeline 30 percent

VI. Selection

The selection of the firm or firms will be based upon the most responsible and responsive proposal in accordance with the evaluation criteria for this request for proposals. Upon publication of this request for proposals, contacts between proposers and CARTA seeking clarifications of this proposal request shall be required to be in writing and sent to Annie Powell at the above address. The use of a facsimile device or e-mail in place of mailed correspondence is acceptable for clarifications. CARTA will provide written response of clarification requests to all persons and/or firms who have received specifications for this request for proposals.

CARTA reserves the right to reject any or all proposals, or to accept any proposals, or to waive any informalities in any proposals, or to withhold the award if deemed in the best interest of CARTA.

A. Applicability

The following requirements and conditions shall be considered as an essential part of specifications and proposals. This document will serve as the contract for the project once the bid is awarded. If there is another contract document the following shall be considered part of that contract.

B. Energy Conservation

The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act pursuant to 42 USC 6321 and 49 CFR part 18.

C. Federal Changes

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the current "Master Agreement" between CARTA 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.

D. Recycled Products

The Contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

E. No Government Obligation to Third Parties

- (1) CARTA 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 CARTA, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
- (2) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with assistance provided by CARTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

F. Program Fraud and False or Fraudulent Statements & Related

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 actions pertaining to 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 be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, 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. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. §

1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

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.

G. Privacy Act

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

- (1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
- (2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

H. Civil Rights Requirements

The following requirements apply to the underlying contract:

- (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. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, 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, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
- (2) Equal Employment Opportunity The following equal employment opportunity requirements apply to the underlying contract:
- (a) Race, Color, Creed, National Origin, Sex In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, 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 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, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

- (b) Age In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
- (c) Disabilities In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of 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, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
- (3) 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.

I. Incorporation of FTA Terms

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, 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 CARTA requests which would cause CARTA to be in violation of the FTA terms and conditions.

J. Nondiscrimination - Title VI of the Civil Rights Act

The Contractor and any subcontractor agree to comply with all requirements prohibiting discrimination on the basis of race, color, or national origin of Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d, and U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation -- Effectuation of Title VI of the Civil Rights Act," 49 C.F.R. Part 21, and any implementing requirements FTA may issue.

The Contractor must include the above statement in any subcontract.

K. Interest of Member of, or Delegates to, Congress

No member of, or delegate to, the Congress of the United States, shall be admitted to any share or part of this contract, or to any benefit arising therefrom.

L. Conflict of Interest

The officers, employees or agents of the Chattanooga Area Regional Transportation Authority shall neither solicit nor accept gratuities, favors, or anything of monetary value from Contractors, potential Contractors, or parties to sub-agreements.

M. Prohibited Interests

No employee, officer, board member, or agent of CARTA who is involved in, or is the supervisor of an employee who is involved in, contract specifications, solicitations, selection, or award, shall have any interests in this contract, or the proceeds thereof. In addition, no immediate family members or partners of an employee, officer, board member, or agent of CARTA who is involved in or is the supervisor of an employee who is involved in contract specifications, solicitations, selection, or award, shall have any interests in this contract, or the proceeds thereof. Nor shall any organization that employs or is about to employee who is involved in, contract specifications, solicitations, selection, or award, shall have any interests in this contract, or the proceeds thereof. Finally, no organization that employs or is about to

employ any immediate family members or partners of an employee, officer, board member, or agent of CARTA who is involved in or is the supervisor of an employee who is involved in contract specifications, solicitations, selection, or award, shall have any interests in this contract, or the proceeds thereof.

N. Tax Exemption and Tax Issues

CARTA is exempt from payment of all Federal, State, and local taxes. Said taxes must not be included in bid prices. CARTA will provide necessary tax exemption information upon request of Contractor after contract award. Contractor shall pay promptly all taxes, excises, license fees and permit fees of whatever nature, applicable to its operations hereunder and take out, pay for, and keep current all licenses, municipal, state, and federal, required for the conduct of its business pursuant to this contract, and further agrees not to permit any of the said taxes excises, or license fees to become delinquent.

O. Lawful Business Conduct

The Contractor shall conduct its business and perform services pursuant to this contract in a lawful manner, and shall fully comply at all times with all federal, state, and local laws with its business operations.

P. Bid Rejection or Cancellation

CARTA reserves the right to waive any minor bid informalities or irregularities which are not crucial to the bid or prejudice against other bidders and/or to reject, for compelling reasons, any and all bids submitted. CARTA may reject all bids or cancel the solicitation before opening if it is deemed by CARTA to be in its best interest to do so.

Q. Non-Collusion

The bidder guarantees that the bid submitted is not a product of collusion with any other bidder and no effort has been made to fix the bid price for any bidder or to fix any overhead, profit or cost element of any bid price. An affidavit of Non-Collusion, as per attached format, must be signed and submitted with bid (Attachment A.)

R. Notices

All notices required to be given to CARTA hereunder shall be given by Certified Mail, Return Receipt Requested to General Manager, CARTA, 1617 Wilcox Blvd., Chattanooga, TN 37406.

Bidder shall identify person and address to whom notices shall be given in the bid.

S. Independent Status of CARTA and Contractor

The Contractor recognizes and acknowledges that neither it nor any of its employees are agents or servants of CARTA, and that Contractor is and shall remain an independent Contractor in the performance of all services hereunder.

T. Late Bids

Bids received after the exact time set for opening are late bids and will not be considered for award, unless it is determined by CARTA that there was mishandling on CARTA's part.

U. Modifications and Withdrawals of Bids

Bids may be withdrawn by written notice or telegram (including mailgram) received at any time before the exact time set for receipt of bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established as an authorized officer of the company and the person signs a receipt for the bid.

V. Period of Acceptance of Bids

The bidder agrees, if this bid is accepted within 60 calendar days from the date specified in the solicitation for receipt of bids, to enter into a contract and/or furnish any or all items upon which prices are bid at the price set opposite each item, delivered at the designated points(s), within the time specified.

W. Bid Acceptance or Rejection

CARTA may accept any bid or reject any or all bids (even after opening), or to award the contract on such basis as CARTA deems in its best interest.

X. Right Infringement

Contractor agrees to save, keep, and hold harmless, and fully indemnify CARTA and its officers or agents from all damages, cost, or expenses in law or equity, that may at any time be claimed against CARTA for or in connection with any infringement of the patent, trademark, or other rights of any person or persons in the consequence of the use by CARTA, or any of its officers or agents, of any product or service supplied under the contract, arising from bids submitted, and any claim that the bidder did not have all necessary right and authority to sell the products or services to CARTA, provided CARTA gives the Contractor prompt notice in writing of any such claim.

Y. Firm Information for CARTA Bidder's List

Fill out attachment B in entirety and return with proposal or bid. In addition, for EACH subcontractor, who may be working for your firm under this contract, copy and fill out sub-contractor information.

Attachment A

Affidavit of Non-Collusion

I hereby swear (or affirm) under penalty of perjury:

- 1. That I am the bidder (if the bidder is an individual), a partner in the bid (if the bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the bidder is a corporation);
- 2. That the attached bid or bids has been arrived at by the bidder independently and have been submitted without collusion and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or service described in the invitation to bid, designed to limit independent bids or competition;
- 3. That the contents of the bid or bids has not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids, and will not be communicated to any such person prior to the official opening of the bid or bids; and
- 4. That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Date		
Signature		
Company Name		
Title		
Subscribed and sworn to me before this	day of	20
Notary Public		
My commission expires	_	
Proposers E.I Number		

Attachment B (page 1 of 2)

Firm Information for CARTA Bidders List

1. Prime Contractor Information	
a. Firm Name	
b. Age of Firm (number of years doing business under current name and or incorporation)	
(number of years doing business under current name and or incorporation)	
c. Firm' Annual Gross Receipts (most recent completed/audited year)	
d. Name of Project Proposal was submitted for	_
2. Subcontractor Information	
Subcontractor 1	
a. Firm Name (Subcontractor 1)	
b. Age of Firm	
(number of years doing business under current name and or incorporation)	
c. Firm' Annual Gross Receipts (most recent completed/audited year)	
d. Name of Project Proposal was submitted for	_
Subcontractor 2	
a. Firm Name (Subcontractor 2)	
b. Age of Firm	
b. Age of Firm (number of years doing business under current name and or incorporation)	
c. Firm' Annual Gross Receipts (most recent completed/audited year)	
d. Name of Project Proposal was submitted for	_
Subcontractor 3	
a. Firm Name (Subcontractor 3)	
b. Age of Firm	
(number of years doing business under current name and or incorporation)	
c. Firm' Annual Gross Receipts (most recent completed/audited year)	
d. Name of Project Proposal was submitted for	_

Attachment B (page 2 of 2)

Firm Information for CARTA Bidders List

Subcontracto	me (Subcontractor 4)	
(number of y	rmears doing business under current name and or incorporation)	
	nual Gross Receipts (most recent completed/audited year)	
d. Name of	Project Proposal was submitted for	
Subcontracto	or 5	
a. Firm Na	me (Subcontractor 5)	
b. Age of Fi (number of y	ears doing business under current name and or incorporation)	
c. Firm' An	nual Gross Receipts (most recent completed/audited year)	
d. Name of	Project Proposal was submitted for	
Subcontracto	or 6	
a. Firm Na	me (Subcontractor 6)	
b. Age of Fi (number of y	ears doing business under current name and or incorporation)	
c. Firm' An	nual Gross Receipts (most recent completed/audited year)	
d. Name of	Project Proposal was submitted for	
Subcontracto	or 7	
a. Firm Na	me (Subcontractor 7)	
b. Age of Fi (number of y	ears doing business under current name and or incorporation)	
c. Firm' An	nual Gross Receipts (most recent completed/audited year)	
d. Name of	Project Proposal was submitted for	
CARTA Into	ernal Use Only	
Procurement Officer d	letermine status:	
I. CARTA/TN UCP I	DBE (Y/N)	
2. Included on Bidder	List (date)	

1. Applicability

The following requirements and conditions shall be considered as an essential part of specifications and proposal. This document will serve as the contract for the project once the bid is awarded. If there is another contract document the following shall be considered part of that contract.

2. Davis-Bacon Act

- (1) Minimum wages
- (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.
- (C) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.
- (ii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iii) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that

the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (iv) (A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:
 - (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (1)(iv) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(2) Withholding

CARTA 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 the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers,

employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, CARTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records

- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to CARTA for transmission to the Federal Transit Administration. The payrolls submitted shall setout accurately and completely all of the information required to be maintained under 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR part 5 and that such information is correct and complete;

- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

(i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program

shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) Equal employment opportunity The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

- (5) Compliance with Copeland Act requirements The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) Subcontracts The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract termination: debarment A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility
- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.
- (11) The contractor will submit to CARTA, with every request for payment, copies of the payroll records as required by this act as well as a signed statement as supplied in attachment 1. This is also required for all subcontractors and it is the responsibility of the prime contractor to gather and submit payroll records and statements from subcontractors for submission to CARTA.

3. Buy America

The contractor agrees to comply with the Buy America Preference applicable to Federal financial assistance set forth in part I of subtitle A, Buy America Sourcing Preferences, of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. 117–58) at division G, title IX, subtitle A, part I, sections 70912 through 70917. Domestic preferences for procurements The bidder or offeror must submit to the Agency the appropriate Buy America certification. Bids or offers that are not accompanied by a completed Buy America certification will be rejected as nonresponsive.

The Buy America Preference applies to the following construction materials used in infrastructure projects. Each construction material is followed by a standard for the material to be considered "produced in the United States." (a) Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States. (b) Plastic and polymer-based products. All manufacturing processes, from initial combination of constituent, plastic or polymerbased inputs until the item is in a form in which it is delivered to the work site and incorporated into the project, occurred in the United States. (c) Composite building materials. All manufacturing processes, from initial combination of constituent materials until the composite material is in a form in which it is delivered to the work site and incorporated into the project, occurred in the United States. (d) Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States. (e) Fiber optic cable. All manufacturing processes, from the initial preform fabrication stage through fiber stranding and jacketing, occurred in the United States. (f) Optical fiber. All manufacturing processes, from the initial preform fabrication stage through fiber stranding, occurred in the United States. (g) Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States. (h) Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

3. Security for Performance in Bids

A bid guaranty issued by a fully qualified surety company acceptable to CARTA and listed as a company currently authorized under 31 CFR, Part 223 (specified in section on Qualifications of Surety below) as possessing a Certificate of Authority is required from each bidder equivalent to five (5) percent of the bid price. The "bid guaranty" shall consist of a firm commitment such as a bid bond, certified check, irrevocable letter of credit, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon CARTA's acceptance of its bid, execute such contractual documents as may be required within ninety (90) days after the bid is submitted. After bidder is selected and contract details are sufficiently agreed upon, CARTA will return all bid bonds except for the selected bidder. The selected bidder will have their bid bond returned after execution of the contract and submission of required sureties such as performance and payment bonds and other requirements prior to beginning work.

In submitting this bid, it is understood and agreed by bidder that the right is reserved by CARTA 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 ninety (90) days subsequent to the opening of bids, without the written consent of CARTA.

It is also understood and agreed that if the bidder should withdraw any part or all of his bid within ninety (90) days after the bid opening without the written consent of CARTA, shall refuse or be unable to enter into this Contract, or refuse or be unable to furnish adequate and acceptable Performance Bonds and Labor and Material Payments Bonds, or refuse or be unable to furnish adequate and acceptable insurance, he shall forfeit his bid security.

It is further understood and agreed that to the extent the defaulting bidder's Bid Bond, Certified Check, Cashier's Check, Treasurer's Check, and/or Official Bank Check (excluding any income generated thereby which has been retained by CARTA) shall prove inadequate to fully recompense CARTA for the damages occasioned by default, then the bidder agrees to indemnify CARTA and pay over to CARTA the difference between the bid security and CARTA's total damages, so as to make CARTA whole.

The bidder understands that any material alteration of any of the above or any of the material contained on this form (Attachment 4), other than that requested, will render the bid unresponsive.

Attorneys-in-fact who sign bid bonds or payment and performance bonds must file with each bond a certified and effective dated copy of their power of attorney.

4. Security for Performance and Payment – Construction

The Contractor shall be required to obtain performance and payment bonds as follows:

- (a) Performance bonds
- 1. The penal amount of performance bonds shall be 100 percent of the original contract price.
- 2. CARTA may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. CARTA may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
- (b) Payment bonds
- 1. The penal amount of the payment bonds shall equal:
- (i) Fifty percent of the contract price if the contract price is not more than \$1 million.

- (ii) Forty percent of the contract price if the contract price is more than \$1 million but not more than \$5 million; or
- (iii) Two and one half million if the contract price is more than \$5 million.
- 2. If the original contract price is \$5 million or less, CARTA may require additional protection as required by subparagraph 1 if the contract price is increased.

Attorneys-in-fact who sign bid bonds or payment and performance bonds must file with each bond a certified and effective dated copy of their power of attorney.

The bidder understands that any material alteration of any of the above or any of the material contained on this form (Attachment 5 for performance bond and Attachment 6 for payment bond), other than that requested, will render the bid unresponsive.)

5. Qualifications of Surety

A Bid Bond and Performance and Payment Bond must be executed by a surety company of recognized standing, authorized to do business in the State of Tennessee as a surety company, having a resident agent in the State of Tennessee and having been in business with a record of successful continuous operation for at least five years. In addition to the above minimum qualifications, the surety company must meet at least one of the following additional qualifications:

- a. The surety company will hold a current certificate of authority as acceptable surety on federal bonds in accordance with the United States Department of Treasury Circular 570, Current Revisions. If the amount of the Bond exceeds the underwriting limitation set forth in the circular, in order to qualify the net retention of the surety company will not exceed the underwriting limitation of the circular, and the excess risks must be protected by coinsurance, reinsurance, or other methods in accordance with Treasury Circular 297, revised September 1, 1978 (31 CFR Section 223.10 Section 233.111). Further, the surety company will provide the CARTA with evidence satisfactory to the CARTA, that such excess risk has been protected in an acceptable manner.
- b. The surety company shall have a Best's rating of A VII or better or a rating otherwise acceptable to CARTA. (Ratings lower than A VII must be approved by CARTA in writing prior to submitting bid or proposal to CARTA.).

6. Lobbying

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 shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

Attachment 10 must be filled out and returned to CARTA with the bid or proposal.

7. Access to Records and Reports

The following access to records requirements apply to this Contract:

- 1. The Contractor agrees to provide CARTA, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. 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.C. 5302(a) 1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.
- 2. The Contractor shall make available records related to the contract for a capital project or improvement (defined at 49 U.S.C. 5302(a) 1) to the CARTA, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
- 3. 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.
- 4. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three 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 Contractor agrees to maintain same until CARTA, 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. Reference 49 CFR 18.39(i)(11).

8. Contract Work Hours

(1) Overtime requirements - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such

laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

- (2) Violation; liability for unpaid wages; liquidated damages In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States 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 the clause set forth in paragraph (1) of this section, 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 the clause set forth in paragraph (1) of this section.
- (3) Withholding for unpaid wages and liquidated damages CARTA 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 the clause set forth in paragraph (2) of this section.
- (4) Subcontracts 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 section.

9. Contract Safety Standards

Contract Work Hours and Safety Standards Act - (i) The Contractor agrees to comply with section 107 of the Contract Work Hours and Safety Standards Act, 40 U.S.C. section 333, and applicable DOL regulations, "Safety and Health Regulations for Construction" 29 C.F.R. Part 1926. Among other things, the Contractor agrees that it will not require any laborer or mechanic to work in unsanitary, hazardous, or dangerous surroundings or working conditions.

The Contractor will be required to abide by CARTA's Agency Safety Plan. This includes providing a safety plan for this project.

Subcontracts - The Contractor also agrees to include the requirements of this section in each subcontract. The term "subcontract" under this section is considered to refer to a person who agrees to perform any part of the labor or material requirements of a contract for construction, alteration or repair. A

person who undertakes to perform a portion of a contract involving the furnishing of supplies or materials will be considered a "subcontractor" under this section if the work in question involves the performance of construction work and is to be performed: (1) directly on or near the construction site, or (2) by the employer for the specific project on a customized basis. Thus, a supplier of materials which will become an integral part of the construction is a "subcontractor" if the supplier fabricates or assembles the goods or materials in question specifically for the construction project and the work involved may be said to be construction activity. If the goods or materials in question are ordinarily sold to other customers from regular inventory, the supplier is not a "subcontractor." The requirements of this section do not apply to contracts or subcontracts for the purchase of supplies or materials or articles normally available on the open market.

10. Default and Termination

1. General Termination Provisions-Transportation Services. Professional Services. Supplies. Other Services. Service. and Transit Services Contracts.

a. Termination for Convenience

CARTA may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in CARTA's best interest. The Contractor shall be paid its fees or its costs, and profit on work performed up to the time of termination, but no unearned profit or fees on work not yet performed. The Contractor shall promptly submit its termination claim to CARTA to be paid the Contractor. If the Contractor has any property in its possession belonging to the CARTA, the Contractor will account for the same, and dispose of it in the manner the CARTA directs.

b. Termination for Default

If the Contractor refuses or fails to prosecute the work or any separable part with the diligence that will insure 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 provisions of this contract, CARTA may terminate this contract for default. CARTA shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the CARTA may take over the work and compete 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 CARTA 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 CARTA in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor 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 CARTA, acts of another Contractor in the performance of a contract with CARTA, epidemics, quarantine restrictions, strikes, freight embargoes; and

2. the contractor, within [10] days from the beginning of any delay, notifies CARTA in writing of the causes of delay. If in the judgment of CARTA, the delay is excusable, the time for completing the work shall be extended. The judgment of CARTA shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses 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 CARTA.

c. Opportunity to Cure

CARTA in its sole discretion may, in the case of a termination for breach or default, allow the Contractor ten (10) days 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 CARTA's satisfaction the breach or default or any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by Contractor or written notice from CARTA setting forth the nature of said breach or default, CARTA 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 CARTA from also pursuing all available remedies against Contractor and its sureties for said breach or default.

d. Waiver of Remedies for any Breach

In the event that CARTA elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by CARTA shall not limit CARTA's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

11. Clean Water Requirements

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA or CARTA.

12. Clean Air and Excluded Facilities

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq . The Contractor agrees to report each violation to CARTA and understands and agrees that CARTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The contractor also agrees to comply with the provisions of 40 CFR Part 15 which prohibits the use of facilities included on the EPA list of violating facilities.

The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with assistance provided by CARTA.

13. Debarment (Suspension from Gov't Purchases)

- 1. By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out below.
- 2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, CARTA may pursue available remedies, including suspension and/or debarment.
- 3. The prospective lower tier participant shall provide immediate written notice to CARTA if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "persons," "lower tier covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 [49 CFR Part 29]. You may contact CARTA for assistance in obtaining a copy of those regulations.
- 5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared

ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by CARTA.

- 6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction", without modification, in all lower tier covered transactions (subcontracts) and in all solicitations for lower tier covered transactions.
- 7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List issued by U.S. General Service Administration.
- 8. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 9. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, (CARTA) may pursue available remedies including suspension and/or debarment.
- 10. Contractor must complete Attachment 12 and submit it to CARTA with the bid or proposal.

14. Breaches and Dispute Resolution

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 CARTA. 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 CARTA. 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 CARTA shall be binding upon the Contractor and the Contractor shall abide be the decision.

Performance During Dispute - Unless otherwise directed by CARTA, 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 CARTA and the Contractor arising out of or relating to this agreement or its breach will be decided by a court of competent jurisdiction in the Hamilton County, Tennessee.

15. Disadvantaged Business Enterprises – Purchases other than Revenue Vehicles

CARTA has an active DBE program required and authorized by the Federal Transit Administration. CARTA attempts to hire contractors and subcontractors that represent the community that CARTA serves. CARTA has consistently been able to achieve DBE participation using race neutral measures and expects its contractors to strongly attempt to achieve the same or better.

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 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as CARTA deems appropriate.

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 15 days from the receipt of each payment the prime contractor receives from CARTA. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of CARTA. This clause applies to both DBE and non-DBE subcontractors.

Sanctions/consequences of noncompliance with the prompt payment clause may include:

- 1. Requiring documentation of all payment to subcontractors for all previous payments from CARTA to the prime contractor before any future payments from CARTA to the prime contractor are made.
- 2. Termination of contract for Default
- 3. Inability of prime contractor to bid on any future CARTA contracts.

CARTA will ensure that the prompt payment clause of the contract is enforced by:

- 1. Requiring prime contractors (in sub-contracts in excess of \$10,000, to provide subcontractors with all contract provisions, including the prompt payment provision.) Essentially, ensuring that subcontractors are knowledgeable of the prompt payment requirement.
- 2 Informing contractors at the pre-construction meeting that CARTA will be monitoring the prompt payment clause of the contract by requiring the subcontractors to file a final certified payroll report upon completion of a subcontractor's portion of the contracted work. After the final certified payroll report has been filed, CARTA will send a letter via e-mail to the subcontractor to verify that the subcontractor has received prompt payment of what is owed from the prime contractor, including retainage.
- 3. If CARTA is contacted by a subcontractor regarding possible violation of the prompt payment clause by the prime contractor we will make inquiries to the prime contractor. Depending on the response from the prime contractor, CARTA may implement the sanctions/consequences listed in the above section.

Legal and Contract Remedies

In the event a prime contractor fails to comply with its stated contract goals, and cannot show that a good faith effort has been made to do so, CARTA shall initiate the following actions:

- 1. If any findings are discovered during the process of fulfilling the contract are deemed to be fraudulent or dishonest conduct in connection with the DBE program, CARTA will notify the Department of Transportation's Inspector General, who in turn under 49 CFR 26 may sanction criminal prosecution, action under suspension and debarment or Program Fraud and Civil Penalties rule provided in 26.109.
- 2. CARTA will also consider similar action under our own legal authorities, including responsibility determination in future contracts. Such actions can include termination for default or prohibition from bidding on future CARTA contracts.

Monitoring and Enforcement Mechanisms

Prime contractors must maintain records and documents of payments to DBEs for three years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative of CARTA or DOT. This requirement also extends to any certified DBE subcontractor.

We will maintain a running tally of actual payments to DBE firms for work committed to them at the time of contract award.

DBE Financial Institutions

CARTA encourages all prime contractors to use the financial service institutions owned and controlled by socially and financially disadvantaged groups. CARTA maintains a list of such institutions and will provide it to any contractors interested in utilizing them.

All prime contractors will include the above statements in this section in all subcontracts over \$10,000.

16. Equal Employment Opportunity for Construction Contracts.

The Contractor agrees to comply with all applicable EEO 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. § 2000(e) note, and any Federal statutes, executive orders, regulations, and Federal policies pertaining to construction undertaken as part of the Project.

The contractor will also insert this provision in all its sub-contracts.

17. Subcontracting and Assignment

Contractor shall not assign, sublet, pledge or transfer its rights under this Agreement, in whole or in part, nor delegate or subcontract any of its duties or obligations under this Agreement nor grant any licenses or concessions hereunder, without the prior written approval of CARTA's Executive Director. Such approval may be withheld at the sole discretion of CARTA.

Notwithstanding the foregoing, Contractor may enter into subcontracts with other parties to perform specific tasks or portions of the work required under this contract, but Contractor may not assign or transfer Contractor's obligations to CARTA for the overall management, oversight, and completion of the work required hereunder.

18. Approved Equals

In all cases, products must be furnished as specified, but where brand names are used, consider the term "approved equal" to follow. The discretion to approve equal substitutions rests solely with CARTA. It is the responsibility of the bidder to furnish sufficient technical detail to support its position that substitutions are equal.

Requests for approved equals, clarification of specifications and protest of specifications must be received by CARTA, in writing, not less than ten (10) days before the scheduled bid opening. Any request for an approved equal or protest of the specifications must be fully supported with all necessary technical data, test results, or other pertinent information. CARTA's replies to requests will be postmarked at least five (5) days prior to the scheduled bid opening. The bidder must demonstrate the equality of his product to CARTA in order that CARTA may determine whether the supplier's product is or is not

equal to that specified. Parties dissatisfied with the decision of CARTA may utilize the appeal procedure set forth in CARTA's purchasing policy.

19. Additional Contractor's Insurance Requirements

- a. The Contractor shall obtain, maintain, and pay the premiums for insurance policies of the types and in the limits of not less than the following:
 - 1) (a) Worker's Compensation and (b) Employer's Liability Insurance endorsed with a Broad Form All States Coverage, which shall cover all the Contractor's Employees engaged in the performance of the work.
 - 2) Comprehensive General Liability Insurance Coverage with limits not less than required by the Umbrella Liability Insurance below and covering at least:
 - (a) Operations Premised Liability
 - (b) Independent Contractor's Liability
 - (c) Broad Form Contractor's Liability covering the Contractor's obligations
 - (d) Products Liability
 - (e) Completed Operations Liability
 - (f) Personal Injury Liability including claims arising from employees of the Contractor
 - (g) Broad Form Property Damage Liability
 - (h) Builders Risk Insurance, to the extent not covered by the foregoing.
 - 3) Comprehensive Automobile Liability Insurance covering all owned, hired, and non-owned automobiles required by Umbrella Liability Insurance below.

Excess and Umbrella Liability Insurance in excess of 1)(b), and 2) above and not less than \$1,000,000.

- 4) Contractor shall also obtain and maintain other policies of insurance of the types and limits that contractor deems sufficient for its own protection.
- b. All Such insurance as indicated above shall be provided by insurance companies having a Best's rating of not less than A: XII, as shown in the current issue of Best's Key Rating Guide, Property-Casualty.
- c. Proof that such insurance coverage exists shall be furnished to CARTA in the form of certificates from the insurance companies before the Contractor commences any portion of the contracted work.
 - CARTA shall be endorsed as an additional insured under such policies.

Such certificates and/or endorsements shall provide that 30 days' notice in writing shall be given to CARTA prior to any change or cancellation of underlying policies.

- d. The Contractor and all of its insurers shall waive all rights of recovery or subrogation against CARTA and its insurance companies.
- e. The Contractor shall be responsible for compliance with all safety rules and regulations of the Federal Occupational Safety and Health Act of 1970 and those of all applicable State Acts, Laws, or Regulations during the conduct of and the Contractor's performance of this Contract. The Contractor shall indemnify CARTA for fines, penalties, and corrective measures that result from the acts of commission or omission of the Contractor, its subcontractors, if any, agents, employees and assigns and their failure to comply with such safety rules and regulations.
- f. CARTA will give to the Contractor prompt notice in writing of the institution of any suit or proceeding and permit the Contractor to defend the same, and will give all needed information, assistance, and authority to enable the Contractor to do so. The Contractor shall similarly give CARTA immediate notice of any suit or action filed or prompt notice of any claim arising out of the performance of the Contract. The Contractor shall furnish immediately to CARTA copies of all pertinent papers received by the Contractor.
- g. The Contractor shall require its subcontractors, if any, to obtain an amount of insurance coverage which is deemed adequate by the Contractor. The Contractor shall be liable to the extent that the subcontractor insurance coverage is inadequate. The subcontractors, prior to commencing any of the work, shall submit certificates evidencing such insurance coverage to the Contractor.
- h. CARTA reserves the right to inspect, in person, prior to commencement of the work, all of the Contractor's insurance policies in regard to insurance required herein.

20. Award Based on Initial Proposals

Awards to proposers may be made, at CARTA's sole discretion, without discussion of proposals with proposers. Proposals should be submitted initially on the most favorable terms possible, from a price and technical standpoint.

21. Metric System.

The contractor understands that the Federal government, the USDOT or the FTA may issue guidelines, policies, or regulations requiring metric measurements in this project as may be required by 15 USC 205a (The Metric Conversion Act of 1975) and or Executive order 12770. CARTA may, to the extent it deems practicable and feasible, agree to accept products and services with dimensions expressed in the metric system.

22. Liabilities against CARTA

The contractor agrees to indemnify, defend and hold CARTA harmless from any and all claims and lawsuits by third parties (including, but not limited to, employees and agents of CARTA and the contractor), including the payment of all damages, expenses, penalties, fines, costs, royalties, charges and attorneys' fees incurred by CARTA which arise out of, or relate to contractors performance of the work required under this contract, whether concerning personal injury (or death), damage to property, or any other type of loss or claim, whether these claims or lawsuits are based upon negligence, intentional misconduct, breach of warranty, strict liability in tort, any failure by the contractor to comply with any laws pertaining to the contract documents, the use of patent appliances, products or processes, or any breach by the contractor of any of its other duties, representations, covenants, or the agreements in the contract documents. The contractor will defend all suits brought upon all such claims and lawsuits and will pay all costs and expenses incidental thereto, but CARTA shall have the right, at its option, to participate in the defense of any suit, without relieving the Contractor of any of its obligations hereunder.

23. Order of Precedence - Proposal

In the event of inconsistency between provisions of this solicitation prior to the parties entering into a contract, the inconsistency will be resolved by giving precedence in the following order: 1) the CARTA project completion timeline for performance as set forth in the solicitation (if any); 2) solicitation instructions and technical specifications, if included; 3) CARTA General Contract Provisions, CARTA Special Contract Provisions, and CARTA Additional Special Contract Provisions which are included in the solicitation documents; and 4) in the event of any inconsistencies between the technical specifications and a written request for approval that has been approved by CARTA, the request for approval will have precedence.

24. Order of Precedence – Contract

In the event of inconsistency between various documents that constitute the contract, the inconsistency will be resolved by giving precedence in the following order 1) any modifications approved by CARTA after the contract was signed; 2) any contract documents CARTA executes to award the contract (such as a purchase order, letter of contract award, or negotiated contract signed by both parties); 3) the Contractor's proposal including any approved equals or modifications approved by CARTA; and 4) the solicitation.

25. Use of "CARTA's" Name in Contractor Advertising or Public Relations

The Contractor will not allow the CARTA logo(s) or any CARTA-related copy to be published in the Contractor's advertisements or public relations programs without CARTA's written approval and then only upon submitting such material to CARTA for review. The Contractor will agree that published information on CARTA or its services will be factual and in no way imply that CARTA endorsed the Contractor's firm, service, or product.

26. Protest procedures.

Any bidder wishing to protest prior to or after the award of a contract must follow CARTA's protest procedures contained below. Deadlines in protest procedures must be adhered to otherwise CARTA will not consider the protest. In addition, the protest must include a statement that that it is a protest, otherwise it will not be considered a protest.

Protest Procedures

Protests concerning CARTA's purchasing policies, the contract requirements, the specifications, the bidding procedures, or the contract award, or any other request for explanation or clarification must be submitted in writing to CARTA's Executive Director and must include the following information:

- The name and address of the protester.
- The name and telephone number of the protester's contact person having responsibility.
- A complete statement of the grounds of the protest with full documentation of the protester's claim.

a. Pre-award Protests

Pre-award protests must be received by CARTA no less than ten (10) working days before the scheduled bid opening. CARTA will respond to the protest in writing and render its final decision at least five (5) working days prior to bid opening. CARTA will report such protests to the FTA regional office.

b. Post-award Protests

Post-award protests will be received no later than five (5) working days after notification of the award bid. CARTA will have ten (10) working days after receipt of the formal protest package to evaluate, and issue a response, except in cases where the original bid has been awarded by the Board. In such cases, the decision to protest will be handled at the next regularly scheduled Board meeting, following completion of the staff review of the protests. CARTA will report such protests to the FTA regional office.

c. Appeals to FTA

It is the responsibility of CARTA to settle contract issues and disputes. CARTA is committed to using good sound administrative practices and business judgments, as well as professional ethics. Reviews of protests by FTA will be limited to alleged failure by CARTA to have followed proper protests procedures, or its failure to review a complaint or protest. Protesters dissatisfied with CARTA's final decision may appeal to FTA regional or Headquarters Office within five (5) working days of the date the protester knew or should have known of the violation.

27. Addenda Acknowledgement

The bidder must submit with the Bid and Addenda Acknowledgement Form acknowledging receipt of all bid addenda issued by CARTA. Acknowledge receipt of addenda on Attachment 14.

28. Terms of Payment

Payment for the specified items shall be net thirty (30) days after acceptance. Bidder should note any discounts for payment before thirty (30) days.

29. Bidders Checklist

Bidders must fill out the bidders checklist in Attachment 15.

30. Safe Operation of Motor Vehicles

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 vehicles, company rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or Agency.

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 Contract.

31. Notification to FTA

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 subagreements 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) 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, bribery, gratuity, or similar misconduct. 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.

32. Simplified Acquisition Threshold

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. § 1908, or otherwise set by law, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. (Note that the simplified acquisition threshold determines the procurement procedures that must be employed pursuant to 2 C.F.R. §§ 200.317–200.327. The simplified acquisition threshold does not exempt a procurement from other eligibility or processes requirements that may apply. For example, Buy America's eligibility and process requirements apply to any procurement in excess of \$150,000. 49 U.S.C. § 5323(j)(13).)

33. Violation and Breach of Contract

Rights and Remedies of the Agency

The Agency shall have the following rights in the event that the Agency 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.

Rights and Remedies of Contractor

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract, which may be committed by the Agency, the Contractor expressly agrees that no default, act or omission of the Agency shall constitute a material breach of this Contract, entitling Contractor to cancel or rescind the Contract (unless the Agency 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 Contract will be a default of this Contract. In the event of a default, the Agency 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 Contract by the Contractor before the Agency takes action contemplated herein, the Agency will provide the Contractor with sixty (60) days written notice that the Agency 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.

Disputes

Disputes arising in the performance of this Contract that are not resolved by agreement of the parties shall be decided in writing by an authorized representative of Agency. This decision shall be final and conclusive unless within [10] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the Agency's authorized representative. 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 Agency's authorized representative shall be binding upon the Contractor and the Contractor shall abide be the decision.

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 Agency's direction or decisions made thereof.

Performance during Dispute

Unless otherwise directed by Agency, 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 its employees, agents or others for whose acts it 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 or damage.

Remedies

Unless this Contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the Agency and the Contractor arising out of or relating to this Contract 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 Agency 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 Agency 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.

34. Veterans Hiring Preference

Veterans Employment - Recipients of Federal financial assistance shall ensure that contractors working on a capital project funded using such assistance give a hiring preference, to the extent practicable, to veterans (as defined in section 2108 of title 5) who have the requisite skills and abilities to perform the construction work required under the contract. This subsection shall not be understood, construed or enforced in any manner that would 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.

Attachment 1

Davis Bacon Statement of Compliance – Submit to CARTA with Every Invoice for Every Payroll.

Required of prime and any subcontractors. Prime must obtain from subs for submission to CARTA.

Attach all payrolls associated with current invoice per Davis Bacon Requirements.

- 1. The payroll for the payroll period contains the information required to be maintained under 29 CFR part 5 and that such information is correct and complete;
- 2. Each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- 3. Each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

Date		
Signature		
Company Name		
Title		

Attachment 2

Buy America Certification for construction materials

Certificate of Compliance

The bidder hereby certifies that it will comply with the requirements of the Buy America Preference applicable to Federal financial assistance set forth in part I of subtitle A, Buy America Sourcing Preferences, of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. 117–58) at division G, title IX, subtitle A, part I, sections 70912 through 70917.

Date
Signature
Company Name
Title
Certificate for Non-Compliance
The bidder hereby certifies that it cannot comply with the requirements of the Buy America Preference applicable to Federal financial assistance set forth in part I of subtitle A, Buy America Sourcing Preferences, of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. 117–58) at division G, title IX, subtitle A, part I, sections 70912 through 70917.
Date
Signature
Company Name

Attachment	4

BID BOND

KNOW	ALL	MEN	BY	THESE	PRESEN	NTS,	that	we,	the	undersi	gned,
							as	PRI	NCIP	AL,	and
				as Su	rety, are	hereb	y held	and	firmly	y bound	unto
Chattano	oga Area	Regiona	al Tran	sportation.	Authority ((CAR	<u>ΓA)</u> as (OWN	ER in	the pena	l sum
of				for the	payment	of whi	ch, wel	l and t	truly to	be mad	e, we
hereby jo	intly and	l severall	y bind	ourselves,	successor	and ass	signs.				
Signed, th	nis		day of_			, 20) .				
The Cond	dition of	the above	e oblig	gation is su	ch that wh	ereas 1	the PRI	NCIP.	AL ha	s submit	ted to
CARTA	a certain	Bid, atta	ached l	nereto and	hereby ma	ide a p	art here	of to	enter i	nto a co	ntract

in writing, for the

(Name of Project)

NOW, THEREFORE,

If said BID shall be rejected, or in the alternate,

If said BID shall be accepted and the PRINCIPAL shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation herein stated.

Attachment 4 (continued)

BID BOND (continued)

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the PRINCIPAL and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper offices, the day and year first set forth above.

	Principal	
	Surety	
By:		

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact in business in the state of Tennessee where the project is located.

Attachment 5 PERFORMANCE BOND KNOW ALL MEN BY THESE PRESENTS: that (Name of Contractor) (Address of Contractor) _____, hereinafter called (Corporation, Partnership, or Individual) PRINCIPAL, and (Name of Surety) (Address of Surety) hereinafter called SURETY, are held and firmly bound unto Chattanooga Area Regional Transportation Authority (CARTA) 1617 Wilcox Boulevard, Chattanooga, Tennessee 37406 hereinafter called OWNER, in the penal sum of ______ Dollars, \$() in lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the_____day of___ copy of which is hereto attached and made a part hereof for the construction of (Title of Project)

Attachment 5 (continued)

PERFORMANCE BOND (continued)

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertaking, covenants, terms, conditions, and agreements of said contract during the original term thereof, and extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, THAT THE SAID SURETY, for value received hereby stipulates and agrees that no change, extension of time, alternation or addition to the terms of the contract or to work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Attachment 5 (continued)

PERFO	RMAN	CE B	OND (cont	inued) .	 (2)			
which	shall	be	EOF, this is deemed	an	nent is exect original, 20		ounterpa	one	of of
ATTES	Т:								
Principa	al								
(Princip	oal) Seci	retary							
(SEAL))								
By:				((s)				
(Addres	ss)								
Witness	s as to P	rincip	al	-					
(Addres	ss)			-					

Attachment 5 (continued)	
PERFORMANCE BOND (continued)	
ATTEST:	
Surety	
(Surety) Secretary	
(SEAL)	
By:	- Attorney-in-
(Address)	(Address)
NOTE: Date of Bond must not be prior partners should execute bond.	or to date of Contract. If Contractor is Partnership, all
IMPORTANT: Surety companies execumost current	uting bonds must appear on the Treasury Department's

list (Circular 570 as amended) and be authorized to transact business in the state of Tennessee where the

project is located.

Attachment 6 LABOR AND MATERIAL PAYMENT BOND KNOW ALL MEN BY THESE PRESENTS: that (Name of Contractor) (Address of Contractor) hereinafter called (Corporation, Partnership, or Individual) PRINCIPAL, and (Name of Surety) (Address of Surety) hereinafter called SURETY, are held and firmly bound unto Chattanooga Area Transportation Authority (CARTA) located at 1617 Wilcox Boulevard, Chattanooga, Tennessee 37406 Hereinafter called OWNER, the of in penal Dollars, \$ () in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successor and assigns, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the ______day of ______, 20 , a copy of which is hereto attached and made hereof for construction of: a part (Name of Project)

Attachment 6 (continued)

LABOR AND MATERIAL PAYMENT BOND (continued)

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alternation or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alternation or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Attachment 6 (continued)

LABOR AND MATERIAL PAIN WITNESS WHEREOF, thi	AYMENT BO	OND (es exec	continued)	e (3) count	ternarts, each of	
which shall be deemed a	an original,	this	the	<u> </u>	day	of
ATTEST:						
	Princ	ipal				
(Principal) Secretary						
(SEAL) By:		<u>(</u> s)				
					(Address)	
Witness as to Principal						
(Address)						

Attachment 6 (continued)	
LABOR AND MATERIAL PAYMENT BOND	(continued)
ATTEST:	
Surety	
(Surety) Secretary	
(SEAL)	Ву:
Fact	Attorney-in-
	(Address)
Witness as to Surety	
(Address)	
NOTE: Date of the Bond must not be prior to date all partners	of Contract. If Contractor is Partnership,
should execute the bond.	

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Tennessee where the project is located.

Attachment 10 Lobbying Certification

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to 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 (P.L. 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 was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (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 \$100,000 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 and not more than \$100,000 for each such expenditure or failure.]

The Contractor,	, certifies or affirms the truthfulness and accuracy of each
statement of its certification a	nd disclosure, if any. In addition, the Contractor understands and agrees
that the provisions of 31 U.S.C	C. A 3801, et seq., apply to this certification and disclosure, if any.
	Signature of Contractor's Authorized Official
	Name and Title of Contractor's Authorized Official
	Date

Attachment 12

Certification Regarding Debarment, Suspension, and Other Responsibility Matters- -Primary Covered Transactions

(1) The prospective primary participant (potential contractor) certifies to the best of its knowledge and belief, that
it and its principals:
(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
The primary participant (potential contractor) certifies or affirms the truthfulness and
accuracy of the contents of the statements submitted on or with this certification.
Signature of Contractor's Authorized Official
Name and Title of Contractor's Authorized Official
Date
CARTA Internal Use Only
Procurement Officer determine status:
Contractor listed on Excluded Parties Listing Service (EPLS)(Y/N)

Attachment 14

Addenda Acknowledgement Form

Addenda received	
Addendum No:	Date Received:
	Signature of Contractor's Authorized Official
	Name and Title of Contractor's Authorized Official
	Date

Attachment 15

Bidders Checklist

This form must be completed and returned with the submission of bid documents. The bidder must use this checklist to help ensure all required certifications, affidavits, and documentation are provided. If the referenced attachment is not required, the bidder must right "N/A" in the check off space.

Attachmer Documen	nt / Description t	Bidder Check Off	CARTA Check off
CSCP 1	Davis Bacon Statement of Compliance		
CSCP 2	Buy America Certification for construction materials		
CSCP 4	Bid Bond or Proposal Guarantee or Irrevocable letter of Credit		
CSCP 5	Performance Bond		
CSCP 6	Payment Bond		
CSCP 10	Lobbying Certification		
CSCP 12	Debarment, Suspension, and Other Responsibility Matters		
CSCP 14	Addenda Acknowledgement Form		
CGCP A	Affidavit of Non-Collusion		
CGCP B	Firm Information for CARTA Bidder's List		
	Signature of Contractor's Authorized Official		
	Name and Title of Contractor's Authorized C	fficial	
_	Date		

Tennessee State Contract Clauses

Conflicts of Interest.

The Grantee warrants that no part of the total Grant Contract Amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Grantee in connection with any work contemplated or performed relative to this Grant Contract

Lobbying.

The Grantee certifies, to the best of its knowledge and belief, that:

- a. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than federally 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 contract, grant, loan, or cooperative agreement, the Grantee shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- c. The Grantee shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, 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 was placed when this transaction was made or entered into and is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352

Nondiscrimination.

The Grantee hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Grant

Contract or in the employment practices of the Grantee on the grounds of handicap or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee state constitutional, or statutory law. The Grantee shall, upon request, show proof of nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

Public Accountability.

If the Grantee is subject to Tenn. Code Ann. § 8-4-401 et seq., or if this Grant Contract involves the provision of services to citizens by the Grantee on behalf of the State, the Grantee agrees to establish a system through which recipients of services may present grievances about the operation of the service program. The Grantee shall also display in a prominent place, located near the passageway through which the public enters in order to receive Grant supported services, a sign at least eleven inches (11") in height and seventeen inches (17") in width stating:

NOTICE: THIS AGENCY IS A RECIPIENT OF TAXPAYER FUNDING. IF YOU OBSERVE AN AGENCY DIRECTOR OR EMPLOYEE ENGAGING IN ANY ACTIVITY WHICH YOU CONSIDER TO BE ILLEGAL, IMPROPER, OR WASTEFUL, PLEASE CALL THE STATE COMPTROLLER'S TOLL-FREE HOTLINE: 1-800-232-5454.

The sign shall be on the form prescribed by the Comptroller of the Treasury. The Grantor State Agency shall obtain copies of the sign from the Comptroller of the Treasury, and upon request from the Grantee, provide Grantee with any necessary signs.

Public Notice.

All notices, informational pamphlets, press releases, research reports, signs, and similar public notices prepared and released by the Grantee in relation to this Grant Contract shall include the statement, "This project is funded under a grant contract with the State of Tennessee, Department of Transportation." All notices by the Grantee in relation to this Grant Contract shall be approved by the State.

Records.

The Grantee and any approved subcontractor shall maintain documentation for all charges under this Grant Contract. The books, records, and documents of the Grantee and any approved subcontractor, insofar as they relate to work performed or money received under this Grant Contract, shall be maintained in accordance with applicable Tennessee law. In no case shall the records be maintained for a period of less than five (5) full years from the date of the final payment. The Grantee's records shall be subject to audit at any reasonable time and upon reasonable notice by the Grantor State Agency, the Comptroller of the Treasury, or their duly appointed representatives.

The records shall be maintained in accordance with Governmental Accounting Standards Board (GASB) Accounting Standards or the Financial Accounting Standards Board (FASB) Accounting Standards Codification, as applicable, and any related AICPA Industry Audit and Accounting guides.

In addition, documentation of grant applications, budgets, reports, awards, and expenditures will be maintained in accordance with U.S. Office of Management and Budget's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

Grant expenditures shall be made in accordance with local government purchasing policies and procedures and purchasing procedures for local governments authorized under state law.

The Grantee shall also comply with any recordkeeping and reporting requirements prescribed by the Tennessee Comptroller of the Treasury.

The Grantee shall establish a system of internal controls that utilize the COSO Internal Control - Integrated Framework model as the basic foundation for the internal control system. The Grantee shall incorporate any additional Comptroller of the Treasury directives into its internal control system.

Any other required records or reports which are not contemplated in the above standards shall follow the format designated by the head of the Grantor State Agency, the Central Procurement Office, or the Commissioner of Finance and Administration of the State of Tennessee.

Environmental Tobacco Smoke.

Pursuant to the provisions of the federal "Pro-Children Act of 1994" and the "Children's Act for Clean Indoor Air of 1995," Tenn Code Ann. §§39-17-1601 through 1606, the Grantee shall prohibit smoking of tobacco products within any indoor premises in which services are provided to individuals under the age of eighteen (18) years. The Grantee shall post "no smoking" signs in appropriate, permanent sites within such premises. This prohibition shall be applicable during all hours, not just the hours in which children are present. Violators of the prohibition may be subject to civil penalties and fines. This prohibition shall apply to and be made part of any subcontract related to this Grant Contract."+

(If the Federal Debarment and Suspension option is included in procurement documents, then this state Debarment and Suspension clause is not needed.)

Debarment and Suspension.

The Grantee certifies, to the best of its knowledge and believe, that the Selected Offeror:

a. is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency;

- b. has not within a three (3) year period preceding this Grant Contract been convicted of, or had a civil judgment rendered against them from commission of fraud, or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or grant under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;
- c. is not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses detailed in section b. of this certification; and
- d. has not within a three (3) year period preceding this Grant Contract had one or more public transactions (federal, state, or local) terminated for cause or default.

The Grantee will provide immediate written notice to the State if at any time it learns that there was an earlier failure to disclose information or that due to changed circumstances, the Selected Offeror is excluded or disqualified, or presently falls under any of the prohibitions of sections a-d.

DETAILED SPECIFICATIONS

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4.0	ITEM 4 – CONCRETE and BRICK REPAIRS	F-8
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DETAILED SPECIFICATIONS

GENERAL

The Contractor is to understand that any work not specifically mentioned in the specifications, but which is necessary, either directly or indirectly, for the proper carrying out of the intent thereof, shall be required and applied, and he shall perform all such work just as if it were particularly delineated or described. The OWNER and the Manager of the Incline will cooperate, to the maximum extent possible, with the Contractor in the performance of the work required by these Specifications.

Description of Work

In general, this project shall include improvements to the Upper Station. More specifically, the project shall consist of the following: Carpet removal, concrete repairs, floor painting, roof replacement, handrail repair, drywall repair, windows, skylight replacement, and painting.

STAGING PLAN

Due to the nature and location of this project and the need for the Incline Railway to remain in operation during the majority of the project, the Contractor shall submit to CARTA a staging plan within 5 days of the NTP. This plan will present the Contractors intentions for keeping the station usable and safe for the public during the restoration.

PERMITS

The Contractor shall be responsible for obtaining and paying for any necessary permits required for the successful execution of this project. Should design changes be required by the permit process, the Engineer will make said changes at no cost to the Contractor.

ITEM 1 - MOBILIZATION

1.01 Description

This work shall consist of the preparatory work and operations for the assembling and setting up necessary for the project, such as signs, shops, plants, storage areas, sanitary, facilities, moving in of personnel and equipment, incidentals to the project site, and any other facilities, as required by the specifications and special requirements of the contract, as well as by local or state laws and regulations.

1.02 Materials

The Contractor shall furnish all materials and furnishings required for this item. These materials and furnishings will not be considered as a part of the various items of completed contract.

1.03 Construction Requirements

The Contractor shall provide all the tools, equipment, materials, labor and work for the construction and furnishings of the required facilities and services. All work under this item shall be performed in a safe and workmanlike manner.

1.04 Limitation

The sum total of the two payments described in Item 1 and Item 2 under 1.06 will be limited to the amounts shown in the following table under "Maximum total of partial payments, = The balance of the amount bid, if any, will be paid as described in Item 3 under 1.06.

		The Maximum Total
Total Co	ntract Amount	of Partial Payments
More Than	Up to, Inclusive	Shall Be
0	50,000	0
50,000	100,000	2,000
100,000	200,000	4,000
200,000	500,000	10,000
500,000	1,000,000	20,000
1,000,000	2,000,000	40,000
2,000,000	5,000,000	100,000

If the contract lump sum amount bid for mobilization exceeds the total shown in the table above for partial payments, the excess will be paid on completion of the project.

1.05 Method of Measurement

Work performance under this item will be measured as a unit, acceptably performed.

1.06 Basis of Payment

Mobilization will be paid for at the contract lump sum price, which shall include the cost of all items herein described.

The contract lump sum price for this item shall be payable to the Contractor as specified in Section 18 of the General Conditions and in accordance with the following schedule of partial payments.

- 1. One-half of the contract lump sum amount bid for mobilization or one half the amount shown in 1.04, whichever is less, will be released to the Contractor with the first estimate payable, but no sooner than 15 days after the start of work at the project site.
- 2. The second one-half of the contract lump sum bid for mobilization or the second one-half of the amount shown in 1.04, whichever is less, will be released with the first regular estimate after 10 percent of the original total contract amount including payments for delivered materials but excluding mobilization, is earned.
- 3. Upon completion of all work on the project, payment of any amount of the contract lump sum price for mobilization, in excess of the total amount shown in the table above for partial payment will be released.

ITEM 2 - WINDOWS

2.01 Description

This item shall include the addition of storefront windows as shown in the plans.

2.02 Requirements

The storefront window system shall be able to meet or exceed the following performance requirements:

Wind Loads: The system (including anchorage) shall be capable of withstanding wind load design pressures of 39.5 psf inward and 42.8 psf outward. The design pressures are based on the International Building Code, 2012 Edition.

Uniform Load: A static air design load of 20psf shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.

2.03 Materials

The Contractor shall verify actual dimensions of the opening by field measurements prior to fabrication.

The extrusions be aluminum of a thickness shall not be less than 0.070" (1.8mm) wall thickness at any location for the main frame and complying with ASTM B 221: 6063-T6

Fasteners shall be aluminum, nonmagnetic stainless steel, or zinc coated steel compatible with the framing members, trim, anchors and other components.

The glass thickness and type shall be determined by the glass manufacturer for all loading specified in the 2012 IBC.

2.04 Delivery, Storage, and Handling

All material shall be delivered in labeled packages. Material shall be stored and handled in strict compliance with manufacturer's recommendations. Care shall be taken to protect the materials from damage due to weather, excessive temperatures, construction operations, and the public.

2.05 Construction

The glass shall be installed watertight. Each installation shall withstand local, normal temperature changes, wind loading, and impact loading without failure of any kind including loss or breakage of glass, failure of sealants or gaskets, or deterioration of glazing materials.

ITEM 3 - CEILING FAN

3.01 Description

This work shall consist of installing an electric ceiling fan at location(s) specified on the plans or directed by the engineer.

3.02 Materials

The fan shall be an 120V, black, weather resistant, commercial rated, outdoor model of at least 72 inch diameter capable of being installed on a standard junction box. The fan shall have a light kit included.

All other electrical components needed for the successful installation of the fan shall be provided by the Contractor. All components shall be rated for commercial use and meet the local electrical code.

3.03 Construction

The electrical work for the fan shall be done by a licensed electrician meeting all applicable codes.

ITEM 4 – CONCRETE and BRICK REPAIRS

4.01 Description

This work shall consist of repairing concrete floors, walls, and columns as directed by the Engineer

4.02 Materials

If required, reinforcing steel shall be ASTM A615 (Grade 60) domestic steel per section 907 of the TDOT standard specifications.

Concrete shall be bagged high early strength concrete mix such as FastSet DOT Mix by Quikrete, Rapid Set DOT Repair Mix by CTS Cement, or approved equivalent.

Brick and Mortar shall be replaced in kind.

4.03 Construction

Once the floor covering has been removed, the Engineer will mark areas for concrete repairs.

Concrete repairs consist of removal of loose concrete in a designated area. If any rebar is exposed, it will be cleaned free of all rust and the concrete around and under the bar shall be removed to allow for new concrete to adhere. All edges will be sawcut to a depth of 1". At no point shall be repairs be less than 3/4".

If section loss on reinforcing is severe, the Engineer may direct that reinforcing steel be added.

The Contractor will be responsible for any form work necessary to recreate original concrete limits. The Contractor shall coordinate with the Engineer on the sequencing and limits of work to eliminate the need for temporary structural shoring.

The Engineer shall direct the bricks to be replaced and the mortar joints to be reworked.

ITEM 5 – PAINTING

5.01 Description

This work shall consist of painting ceilings, cleaning exterior areas, and painting exterior areas as shown in the plans or as directed by the Engineer.

5.02 Materials

Paint for the drywall shall be an exterior latex based paint and primer of a color and sheen to match the existing painted areas.

Paint for concrete and masonry shall be an exterior epoxy paint / sealer of a color and sheen to match the existing painted areas.

5.03 Construction

Concrete and masonry structures to be painted shall be pressure washed clean prior to painting.

Areas shown on the plans or directed by the engineer shall be painted with two coats of the exterior latex paint.

Care shall be taken to not get paint on the floor, windows, walls, fixtures, or other items in the vicinity.

INCLINE RAILWAY BUILDING PLATFORM MODIFICATIONS

AND

CONCRETE REPAIRS

FOR THE

INCLINE RAILWAY AT LOOKOUT MOUNTAIN

AND

CARTA - CHATTANOOGA AREA REGIONAL TRANSPORTATION AUTHORITY

CHATTANOOGA, TN

CONTRACTOR'S NOTES:

THE CONTRACTOR'S WORK TO BE PERFORMED UNDER THIS PROJECT WILL CONSIST OF FURNISHING ALL EQUIPMENT, LABOR, MATERIALS, TOOLS AND SUPERVISION NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED MODIFICATIONS AND OTHER RELATED WORK AS LISTED IN THESE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL VERIFY <u>ALL</u> DIMENSIONS, UTILITY LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING ANY MATERIAL. IF A DISCREPANCY IS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODES AND LAWS. ALL NECESSARY LICENSES AND PERMITS NOT OBTAINED BY THE OWNER SHALL BE THE CONTRACTOR'S RESPONSIBILITY

ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY OWNER

ALL WORK BEING PERFORMED SHALL BE IN THE BEST RECOGNIZED TRADE PRACTICES AND TO THE ENTIRE SATISFACTION OF THE OWNER.

DECEMBER 2021







SHEET DESCRIPTION

- 1. TITLE SHEET
- 2. CONCRETE REPAIR KEY, NOTES & ESTIMATED QUANTITIES
- 3. MAIN FLOOR MODIFICATIONS
- 4. REAR ELEVATION OF THE UPPER STATION
- 5. CONCRETE REPAIR LOCATIONS

CONCRETE REPAIR LOCATIONS CONTINUED

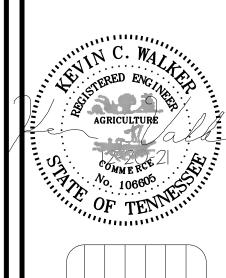


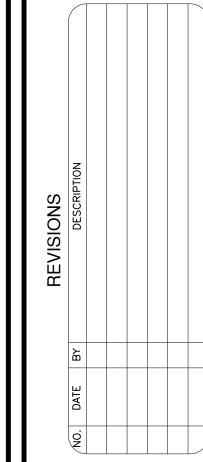
Engineering

1116 Main Street
Pleasant View, TN 37146
P: 615.212.2389
F: 615.246.3815



ATION INCLINE RAILWAY
AT LOOKOUT MOUNTAIN







DESIGNER **DKH** REVIEWER **KCW**

ркојест **11-090**

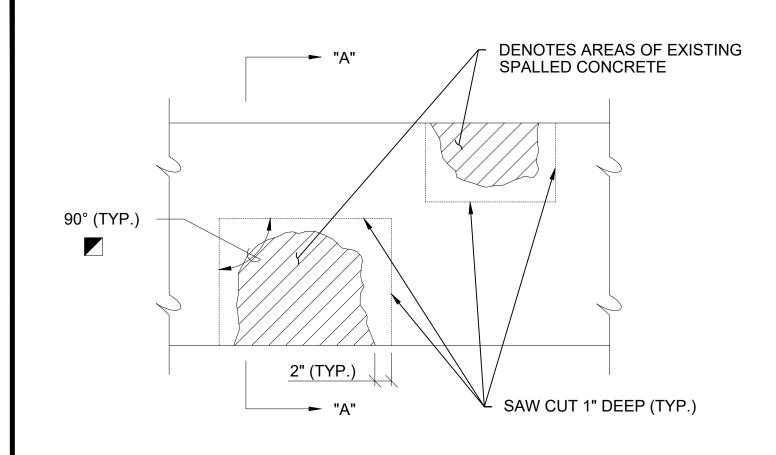
DATE 12-20-21

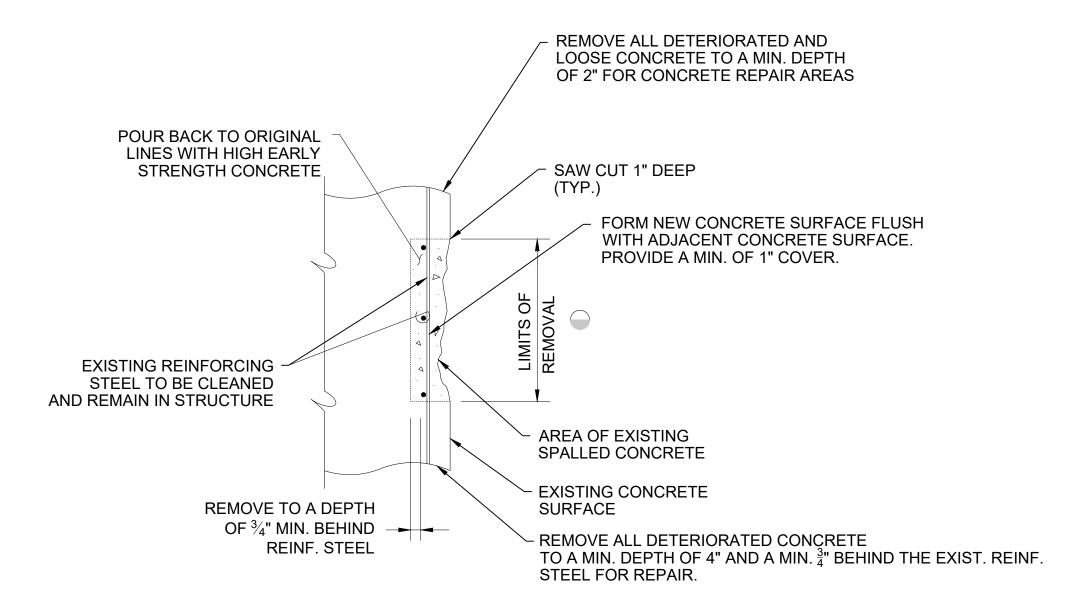
1 of 6

SCALE: NONE

CSR Engineering, Inc. 1116 Main Street Pleasant View, TN 37146 P: 615.212.2389 F: 615.246.3815 www.csrengineers.com

Engineering





SECTION "A-A'

DETAIL SHOWING AREAS OF EXISTING SPALLED

CONCRETE SURFACES TO BE REMOVED AND REPAIRED

N.T.S.

DENOTES: LIMITS AND LOCATION OF REPAIRS TO BE DETERMINED DURING

DENOTES: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS.

FULL AND PARTIAL DEPTH DECK REPAIR.

- I. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING SLAB REPLACEMENT. DESIGN CALCULATION AND DETAILS OF TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET WITH THE FULL SATISFACTION OF THE ENGINEER BEFORE ANY DEMOLITION IS BEGUN.
- EXTREME CARE SHALL BE TAKEN WHEN REMOVING DETERIORATED CONCRETE FROM THE AREAS SHOWN SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED REINFORCING
 STEEL SHALL BE COMPLETELY CLEANED TO THE SATISFACTION OF THE ENGINEER BEFORE REPOURING.
- 3. LOCATIONS OR SECTIONS OF STEEL TO BE REPLACED ARE TO BE DETERMINED BY THE ENGINEER DURING DEMOLITION. ANY NEW REINFORCING STEEL SHALL BE EPOXY COATED.
- 4. PATCHING MATERIAL SHALL BE HIGH EARLY STRENGTH CONCRETE. PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE QUALIFIED PRODUCTS LIST 13. SECTION B.6.
- 5. EXTREME CARE SHALL BE TAKEN WHEN REMOVING THE EXISTING SPALLED CONCRETE SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED REINFORCING STEEL SHALL RECEIVE A COMPLETE CLEANING TO REMOVE ALL RUST. ALL EXISTING REINFORCEMENT SHALL REMAIN IN PLACE. ALL WORK MUST MEET WITH THE FULL APPROVAL OF THE ENGINEER.
- 6. THE ENGINEER SHALL DESIGNATE ALL SPALLED CONCRETE REPAIR AREAS IN THE FIELD. QUANTITIES GIVEN ARE APPROXIMATE.
- POWER DRIVEN HAND TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:
- A. PNEUMATIC HAMMERS HEAVIER THAN 35 LB. CLASS SHALL NOT BE USED.
- B. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL AND BEAM END REPAIRS.
- . LIMITS AND LOCATION OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.

NOTES: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED.

POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL AND FULL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

- 1) PARTIAL DEPTH REPAIRS; PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 LBS CLASS SHALL NOT BE USED.
- 2) FULL DEPTH REPAIRS; PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 90 LBS CLASS SHALL NOT BE USED.
- 2)A. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 LBS PNEUMATIC HAMMERS.
 3) CHIPPING HAMMER OF THE 15 LB CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL

GENERAL NOTES:

MISCELLANEOUS

THE CONTRACTOR WILL VERIFY ALL DIMENSIONS AND QUANTITIES PRIOR TO ORDERING MATERIAL OR CONSTRUCTION. ANY AND ALL SIGNIFICANT DISCREPANCIES FROM PLAN QUANTITIES OR DIMENSIONS WILL BE REPORTED TO THE ENGINEER IMMEDIATELY SO CORRECTIONS CAN BE MADE IN A TIMELY MANNER.

CERTIFICATIONS OF ALL MATERIAL AND SHOP DRAWINGS (STEEL, ANTI-SLIP COATING, EXPANSION ANCHORS, STOREFRONT WEATHER PANELS, PAINT, ETC.) TO BE USED IN THE CONSTRUCTION OF THIS PROJECT WILL BE SUBMITTED TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

SAFETY

THE CONTRACTOR WILL BE REQUIRED TO CONFORM TO ALL OSHA SAFETY REGULATIONS REGARDING BUILDING SAFETY.

THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF WORKER AND SITE SAFETY, AND WILL HAVE A RESPONSIBLE EMPLOYEE IN CHARGE ON SITE AT ALL TIMES DURING CONSTRUCTION.

RIGHT - OF - WAY

ALL CONSTRUCTION ACTIVITIES WILL BE CONFINED WITHIN THE UPPER STATION PROPERTY LIMITS UNLESS ARRANGEMENTS HAVE BEEN MADE BY THE CONTRACTOR, IN WRITING, WITH ADJOINING PROPERTY OWNERS.

PROTECTION OF EXISTING BUILDING

THE CONTRACTOR SHALL CONDUCT HIS/HER WORK IN A MANNER THAT PROTECTS THE PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REGULATIONS STIPULATED BY THE INCLINE RAILWAY SO AS TO MAINTAIN THE SAFETY OF THE PEDESTRIAN TRAFFIC.

BUILDING CODES

CONSTRUCTION SHALL BE AS REQUIRED BY THE 2012 INTERNATIONAL BUILDING CODES

4	LOADING PLATFORM NO. 1 SLAB - EAST SIDE	CRACKING AND DELAMINATION ON OUTSIDE EDGE	8 S.F.
5	LOADING PLATFORM NO. 1 SLAB - SOUTH SIDE	CRACKING AND DELAMINATION ON OUTSIDE EDGE	6 S.F.
6	OBSERVATION DECK ABOVE RAIL CARS	SPALLING AREA ON UNDERSIDE OF OBSERVATION DECK SLAB	1 S.F
7	LOADING PLATFORM NO. 2 SLAB - NORTH SIDE	CRACKING AND DELAMINATION ON OUTSIDE EDGE	5 S.F.
8	LOADING PLATFORM NO. 2 SLAB - NORTH SIDE AND NORTH OUTSIDE COLUMN	HORIZONTAL AND VERTICAL CRACKING	3 S.F.
9	LOADING PLATFORM NO. 2 SLAB - EAST SIDE	CRACKING AND DELAMINATION ON OUTSIDE EDGE	10 S.F.
10	COLUMN ON LOADING PLATFORM NO. 2 AT STAIRS TO MACHINE FLOOR	COLUMN DAMAGE AT FLOOR	6 S.F
11	ROOF BEAM ON SOUTH SIDE OF CONCOURSE AT STAIRS TO OBSERVATION DECK	END OF ROOF BEAM DAMAGE	11 S.F
12	STAIRS FROM CONCOURSE TO LOADING PLATFORM NO. 2	CRACKING AND DELAMINATION ON OUTSIDE EDGE STEPS AND LANDING	8 S.F.
13	OBSERVATION DECK ABOVE LOADING PLATFORM NO. 2	SPALLING AREA ON UNDERSIDE OF OBSERVATION DECK SLAB	3 S.F.
14	OBSERVATION DECK ABOVE LOADING PLATFORM NO. 2	SPALLING AREA ON UNDERSIDE OF OBSERVATION DECK SLAB	5 S.F.
15	STEPS FROM OBERVATION DECK TO UPPER OBSERVATION DECK - SOUTH SIDE	SPALLING AREAS ON UNDERSIDE OF STEPS	10 S.F.
16	OUTSIDE COLUMN ON LOADING PLATFORM NO. 1 AT NEAR GROUND LEVEL	VERTICAL CRACKING - 2 AREAS	3 S.F.
17	UNDERSIDE OF LOADING PLATFORM NO. 2 AT DOORWAY	HORIZONTAL CRACKING ON LEDGE OVER STEEL BEAM	2 S.F.

CONCRETE REPAIR KEY

LOCATION

STAIRCASE LEADING TO OBSERVATION

DECK FROM CONCOURSE- NORTH SIDE

OBSERVATION DECK ABOVE LOADING

LOADING PLATFORM NO. 1 SLAB - NORTH

PLATFORM NO. 1

DESCRIPTION

DELAMINATION ON UNDERSIDE OF

SPALLING AREA ON UNDERSIDE OF

CRACKING AND DELAMINATION ON

OBSERVATION DECK SLAB

STAIRS

OUTSIDE EDGE

REPAIR

NO.

SCOPE OF WORK:

THE CONTRACTOR'S SCOPE OF WORK TO BE PERFORMED FOR THE INCLINE RAILWAY AT LOOKOUT MOUNTAIN AND CARTA - CHATTANOOGA AREA REGIONAL TRANSPORT AUTHORITY CONSISTS OF FURNISHING ALL EQUIPMENT, LABOR, MATERIALS, TOOLS AND SUPERVISION NECESSARY FOR THE BUILDING REHABILITATION REPAIRS SHOWN IN THESE PLANS.

LOADING PLATFORM NO. 2 SLAB - SOUTH

STAIRS FROM MAINTENANCE ROOM TO

SOUTHEAST CORNER OF BUILDING

SLOPED BEAM UNDER LOADING

PLATFORM - NORTH SIDE

GROUND LEVEL

UPPER OBSERVATION DECK

- CONCRETE REPAIRS
- LOWER OBSERVATION DECK
- CONCRETE REPAIRS AS SPECIFIED IN PLANS.
 RE-CAULK STOREFRONT WINDOW AS SPECIFIED.

MAIN FLOOR

INSTALL NEW CEILING FANS AS SHOWN IN THE PLANS

18

20

INSTALL STOREFRONT WINDOWS AND PAINT AS SPECIFIED.
CONCRETE REPAIRS AS SPECIFIED IN PLANS.

MACHINE ROOM FLOOR

CONCRETE REPAIRS AS SPECIFIED IN PLANS.

ESTIMATED QUAN	TITIES	
ITEM DESCRIPTION	UNIT	OII A NITT TO
MOBILIZATION	LS	QUANTITY 1
1 STOREFRONT WINDOWS	SF	468
2 CEILING FAN	EA	1
3 SLAB CONCRETE REPAIR	SF	109
3 COLUMN CONCRETE REPAIR	SF	12
4 REPAIR CRACKED BRICK (REPAIR NO. 20)	SF	5
5 SLAB CEILING/EDGE PAINTING	SF	2,400

CRACKING AND DELAMINATION ON

CRACKING AND DELAMINATION ON

VERTICAL CRACKING IN BRICKS

THE UNDERSIDE OF BEAM

CRACKING AND DELAMINATION ON

OUTSIDE EDGE STEPS AND LANDING

OUTSIDE EDGE

- 1 INCLUDES ALL COST ASSOCIATED WITH REMOVAL OF HANDRAIL OR OTHER OBSTRUCTIONS, ANY REQUIRED ALTERATIONS TO THE CONNECTION SURFACE, AND SECURING WINDOW TO STRUCTURE.

 PROPOSED STOREFRONT WINDOWS WITH OPEN AIR ABOVE SHALL INCLUDE THE COST OF ANY ADDED STRUCTURAL SUPPORT IN UNIT SF PRICE.
- THE COST OF ANY ADDED STRUCTURAL SUPPORT IN UNIT SE PRIC.

 2 INCLUDES ALL CONDUIT, WIRING, AND OTHER ELECTRICAL

 REQUIREMENTS TO INSTALL FAN.
- 3 INCLUDES COST OF CONCRETE REMOVAL, CLEANING REINFORCING BARS, PATCHING CONCRETE, AND MATCHING SURFACE FINISH AND COATING.
- 4 INCLUDES REMOVAL OF DAMAGED BRICK AND SURROUNDING MORTAR AND REPLACING IN KIND.
- 5 CLEAN AND PAINT SIDE AND UNDERSIDE OF SLABS, STAIRS, OR COLUMNS AS DIRECTED BY ENGINEER.

S AS DIRECTED BY ENGINEER.

1116 Main Street
Pleasant View, TN 37146
P: 615.212.2389
F: 615.246.3815
www.csrengineers.com



Engineering

ESTIMATED

QUANTITY

6 S.F.

12 S.F.

8 S.F.

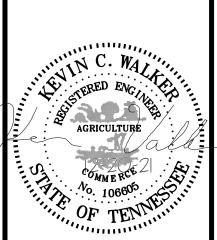
7 S.F.

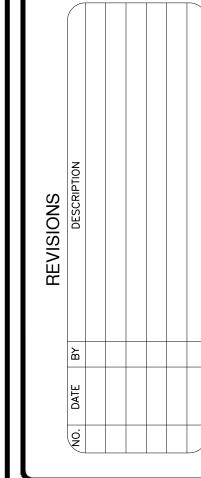
5 S.F.

2 S.F.

≻ z

CONCRETE REPAIR KEY, NOTES
ESTIMATED QUANTITIES
UPPER STATION INCLINE RAILW,
RAILWAY AT LOOKOUT MOUNTA





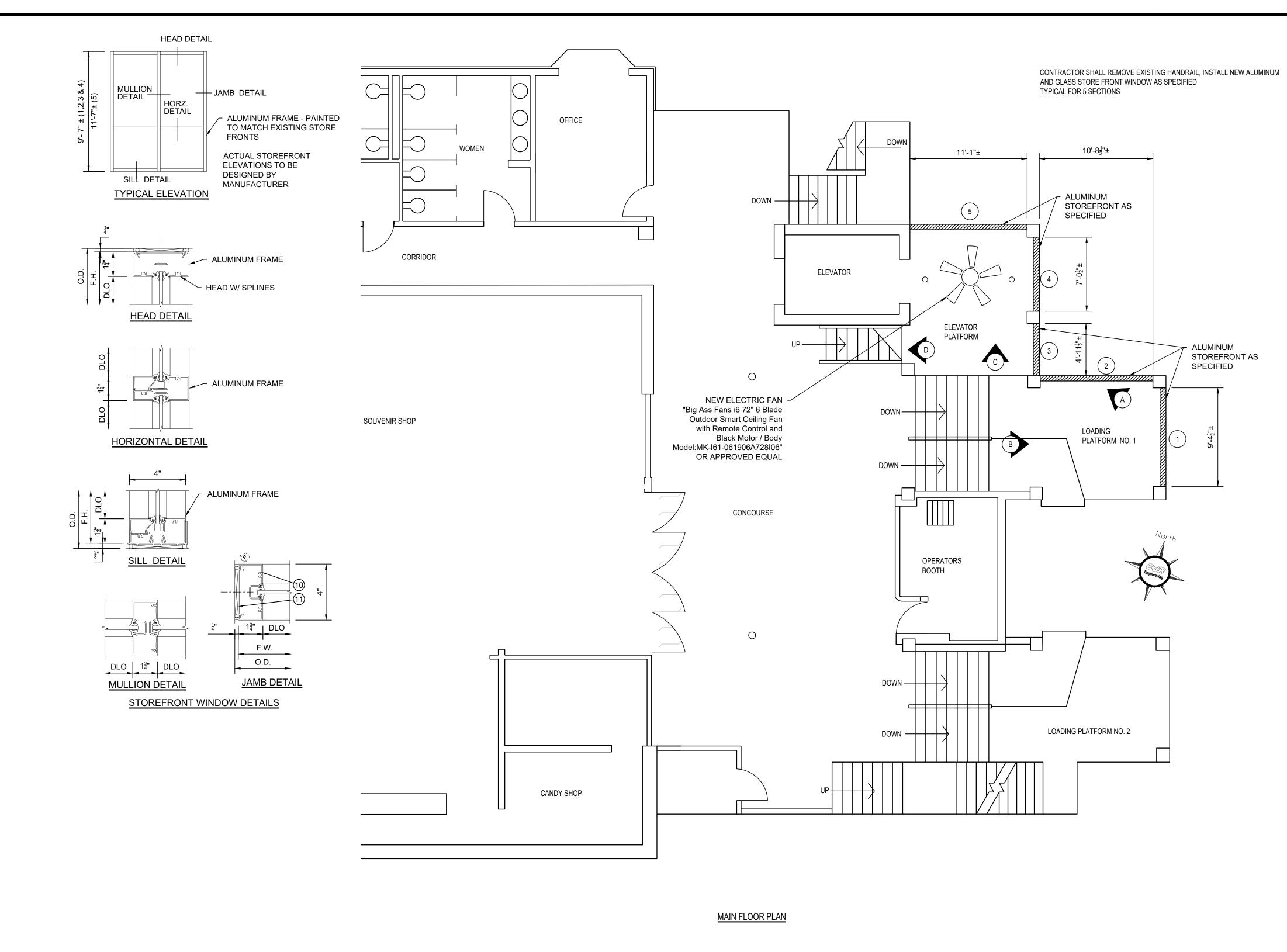


DESIGNER **DKH**REVIEWER **KCW**

PROJECT **11-090**

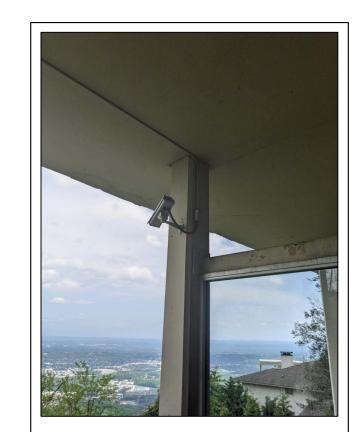
DATE 12-20-21

2 of 6



CONTRACTOR'S NOTE

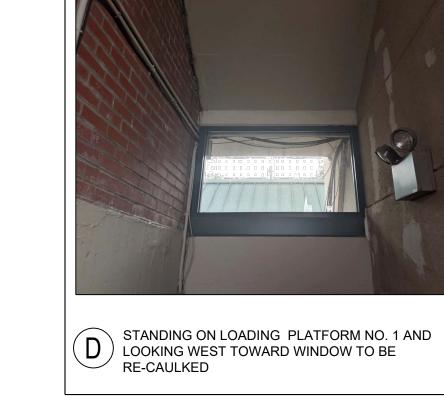
ALL INCIDENTAL ELECTRICAL CONDUIT AND CAMERAS TO BE RELOCATED AS REQUIRED TO INSTALL NEW STORE FRONTS, CONTRACTOR TO VERIFY ALL LOCATIONS AND DIMENSIONS PRIOR TO ORDERING ANY MATERIAL.

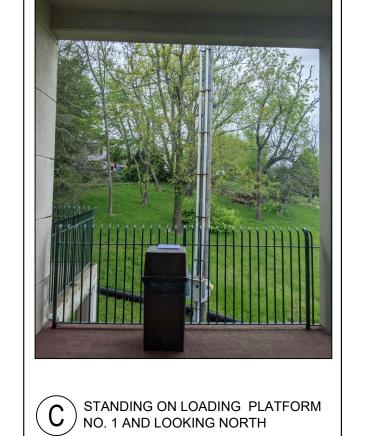


LOOKING AT A CAMERA IN STORE FRONT 1 LOCATION THAT MAY NEED TO BE RELOCATED

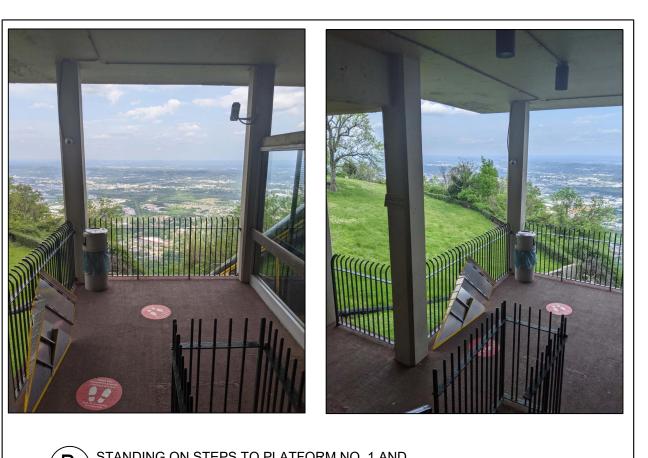


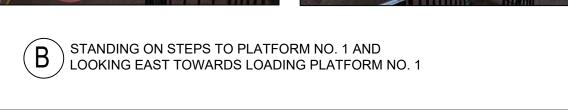
REQUIRED

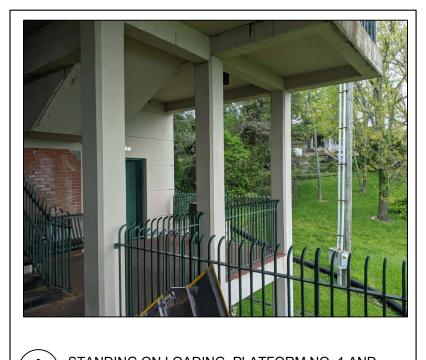














Know what's **below.**Call before you dig.

Engineering

Pleasant View, TN 37146

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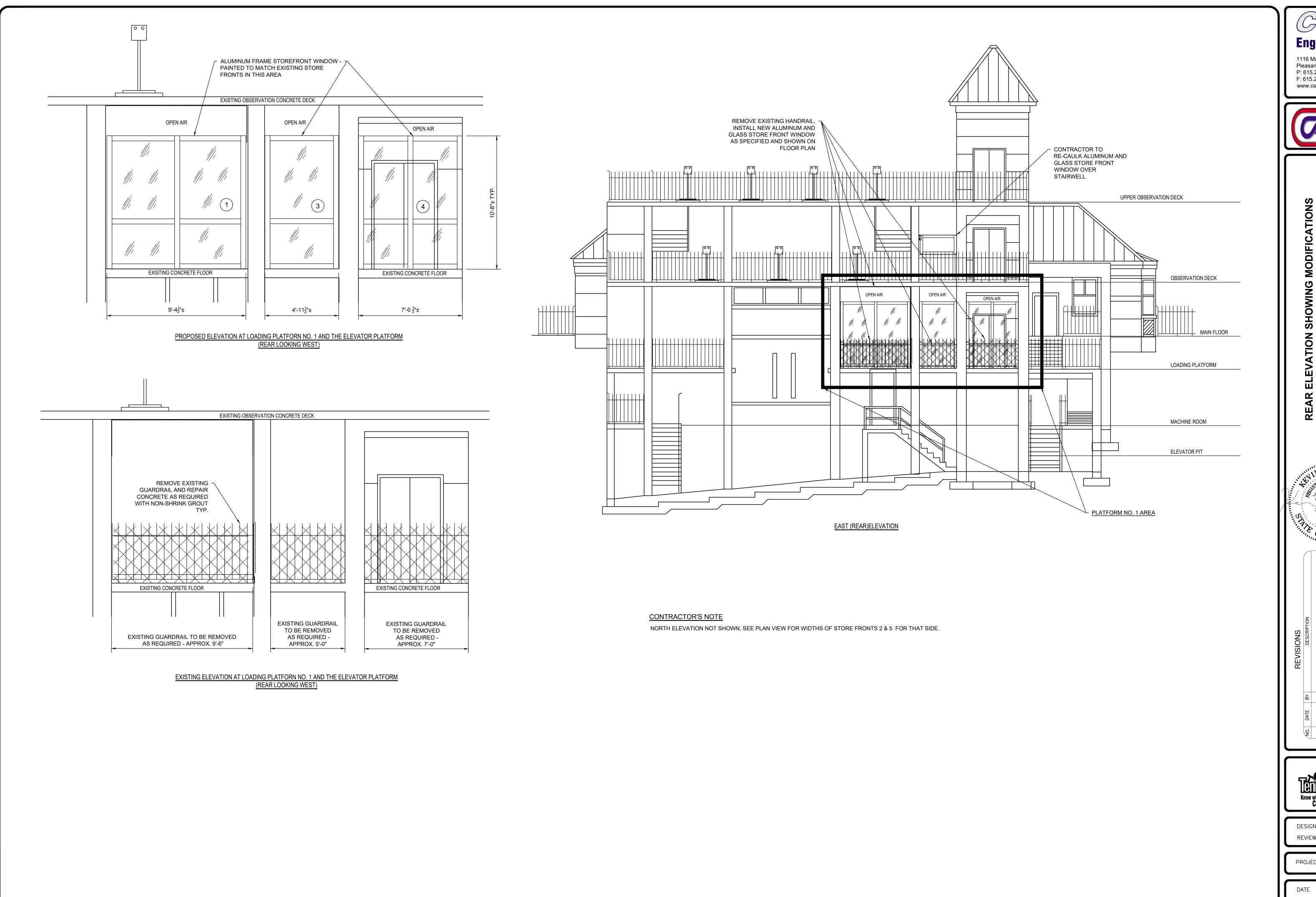
MAIN FLOOR MODIFICATIONS

DESIGNER REVIEWER

11-090 PROJECT

12-20-21

3 of 6

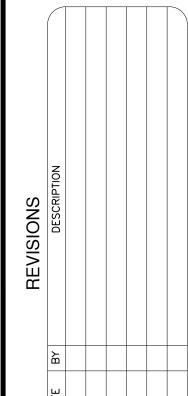


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MODIFICATIONS SHOWING

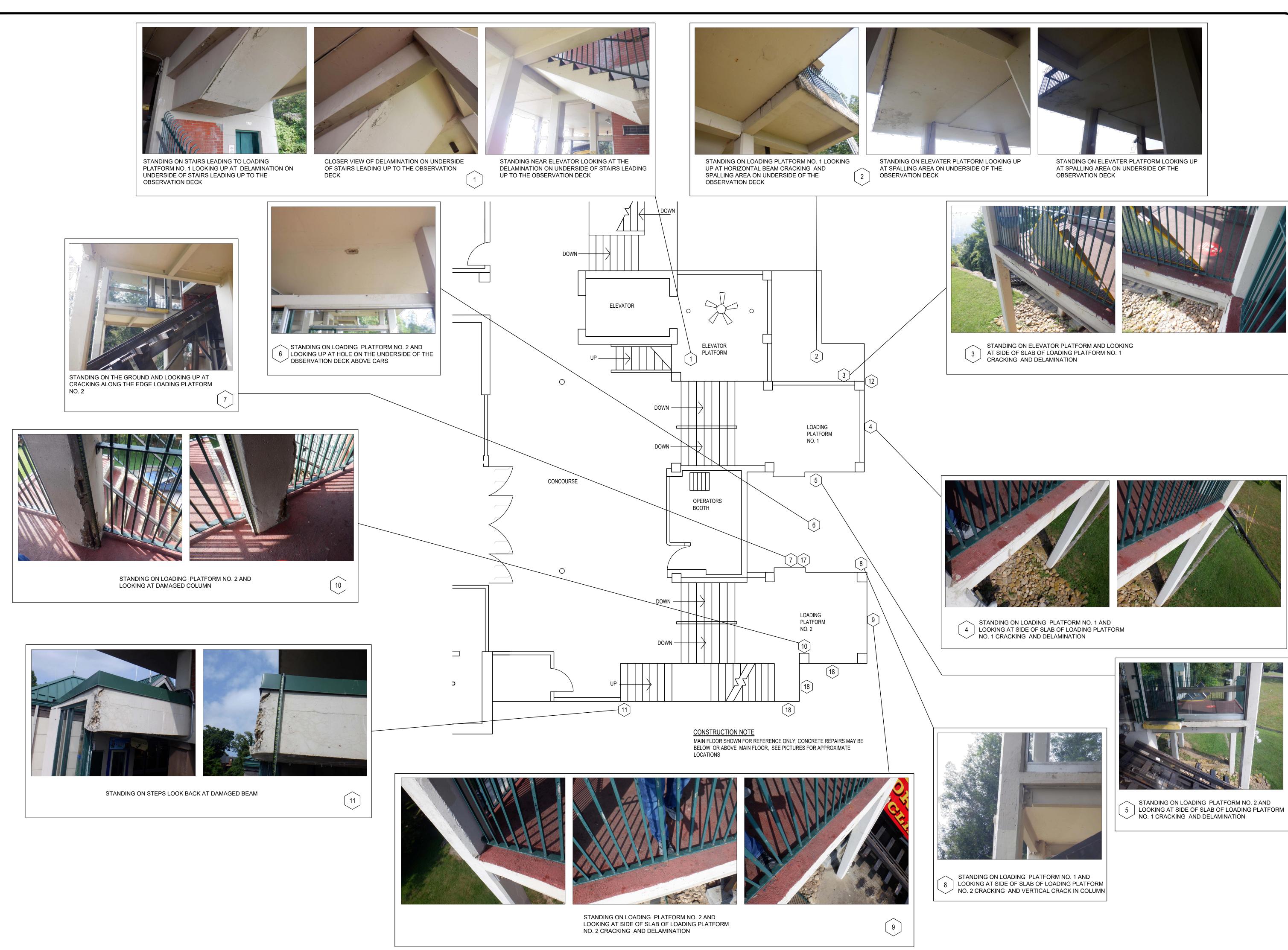




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11-090 PROJECT

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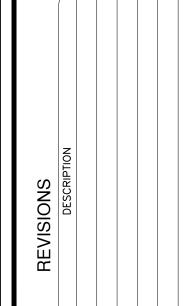


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DESIGNER REVIEWER

11-090 PROJECT

12-20-21

5 of 6

SCALE: NONE

PURPOSE FOR ISSUE: FOR AGENCY REVIEW







STANDING ON LOADING PLATFORM NO. 2 STEPS AND LOOKING SIDE OF LANDING SHOWING CONCRETE CRACKING



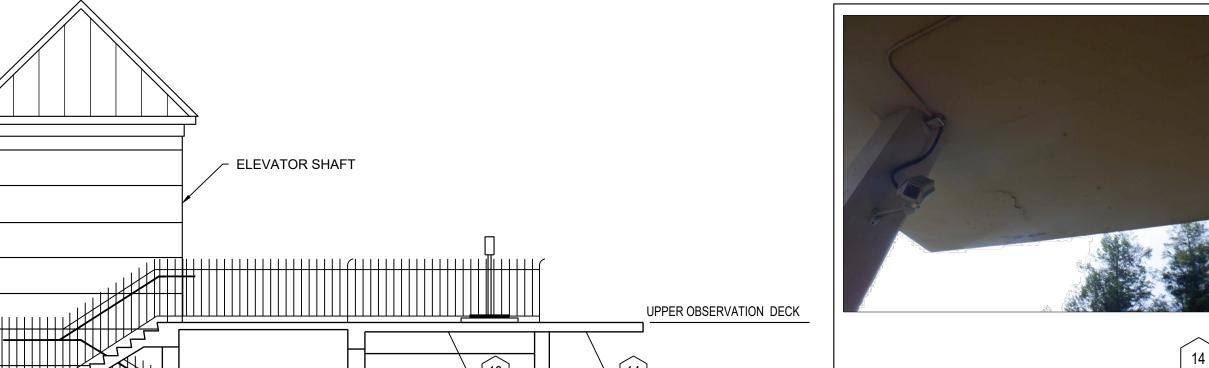


STANDING ON LOADING PLATFORM NO. 2 STEPS AND LOOKING AT UNDERSIDE OF THE UPPER OBSERVATION DECK SHOWING CONCRETE SPALLING





STANDING ON THE GROUND AND LOOKING UP AT UNDERSIDE OF LOADING PLATFORM NO. 2 DOORWAY

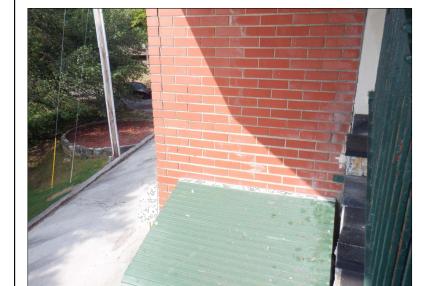








STANDING ON LOADING PLATFORM NO. 2 STEPS AND LOOKING SIDE OF LANDING SHOWING CONCRETE

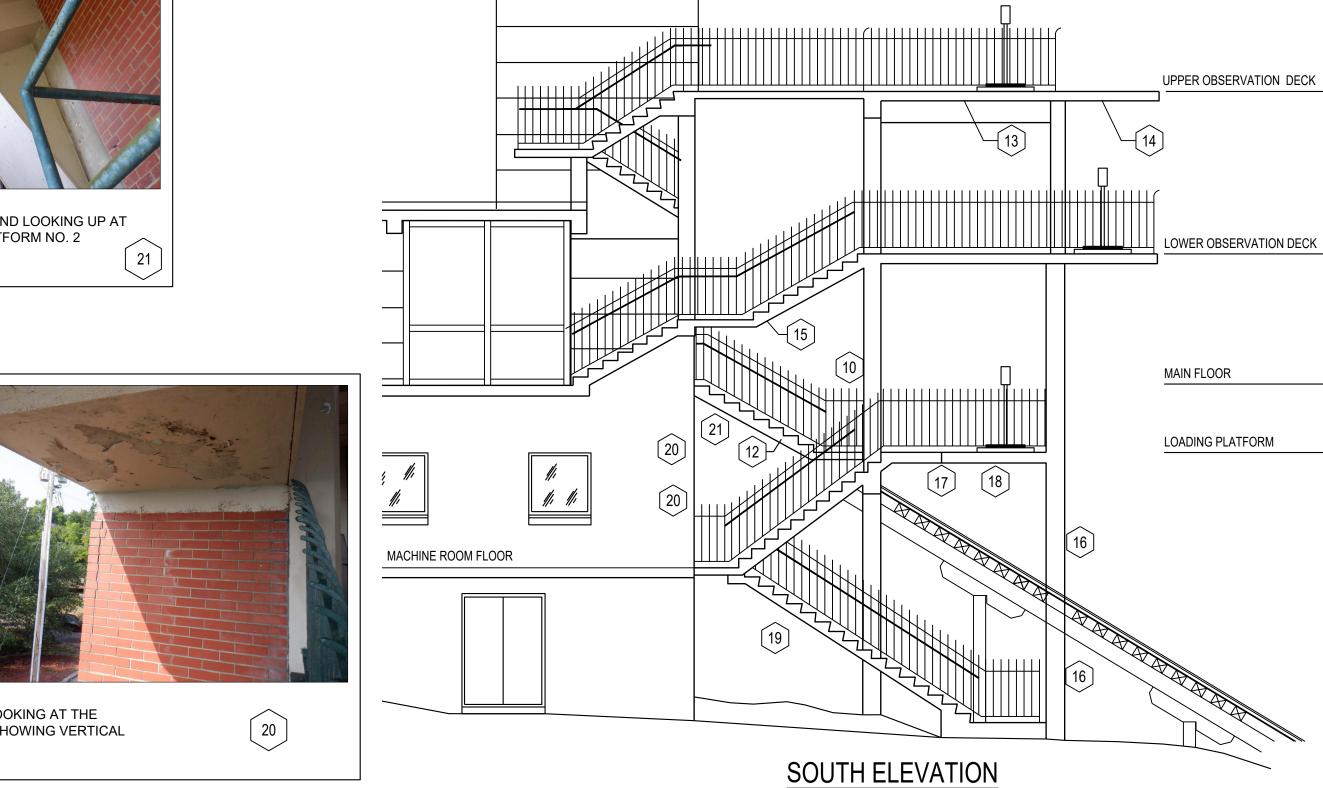






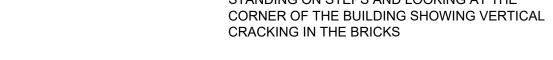


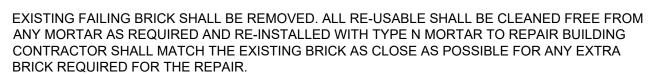
STANDING ON STEPS AND LOOKING AT THE





STANDING ON LOADING PLATFORM NO. 2 STEPS AND LOOKING AT UNDERSIDE OF STEPS LEADING TO OBSERVATION DECK SHOWING CONCRETE SPALLING





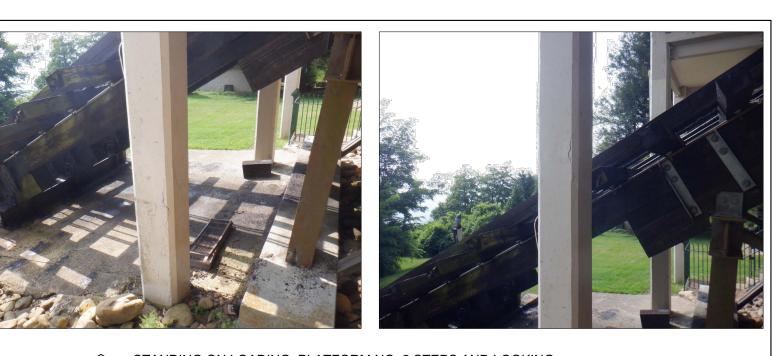


STANDING ON THE GROUND AND LOOKING AT SIDE OF SIDE OF STEPS SHOWING HORIZONTAL CRACKING





STANDING ON THE GROUND AND LOOKING UP AT UNDERSIDE OF LOADING PLATFORM NO. 2 DOORWAY



STANDING ON LOADING PLATFORM NO. 2 STEPS AND LOOKING AT UNDERSIDE OF STEPS LEADING TO OBSERVATION DECK SHOWING CONCRETE SPALLING



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CONCRETE

DESIGNER REVIEWER

11-090 PROJECT

12-20-21

Chattanooga, TN 37350-1009 RESTROOM : 827 E Brow Rd,

DATE 6/10/21

INCLINE RAILWAY **NEW RESTROOM**

: 827 E Brow Rd, Chattanooga, TN 37350-1009

JOHN F. WERNE III ARCHITECT

1020 OWEN COURT, ASHLAND CITY, TENNESSEE 37015 615-792-3966

MICHAEL BUSBY, PE

MECHANICAL ENGINEER

P.O. BOX 813, GOODLETTSVILLE, TN 37070, 615-512-7597

CSR ENGINEERING, INC. CIVIL/STRUCTURAL ENGINEER

DRC ENGINEERING

DARON CHRISTY, ELECTRICAL ENGINEER 2585 PLEASANT VIEW RD, PLEASANT VIEW, TN 37146, 616-714-1812

INDEX OF DRAWINGS

CIVIL HVAC/PLUMBING SEE SITE PACKAGE MP-1 MECHANICAL & PLUMBING PLANS ELECTRICAL ARCHITECTURAL

A-1 PLAN, SECTION AND ELEVATIONS

E-1 ELECTRICAL PLANS AND SPECS

STRUCTURAL

S-1 GENERAL NOTES S-2 FOUNDATION PLAN

S-3 OFFICE DETAILS S-4 FOUNDATION DETAILS

S-5 FOUNDATION DETAILS

NOTE: ALL DRAWINGS, SPECIFICATIONS AND CODES LISTED OR REFERENCED ABOVE APPLY AS A WHOLE DOCUMENT AND SHALL NOT BE CONSIDERED AS SEPARATE REQUIREMENTS BASED ON DISCIPLINE, SUBCONTRACT OR OTHER ENTITY.

CONSTRUCTION SHALL COMPLY WITH:

· 2018 International Building Code · 2018 International Plumbing Code

· 2018 International Mechanical Code

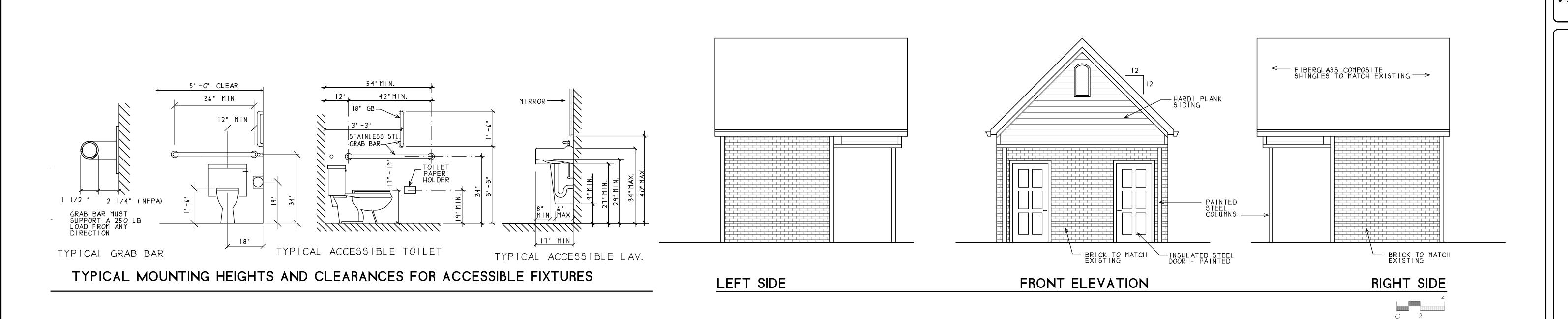
· 2018 International Fire Code · 2018 International Fuel Gas Code

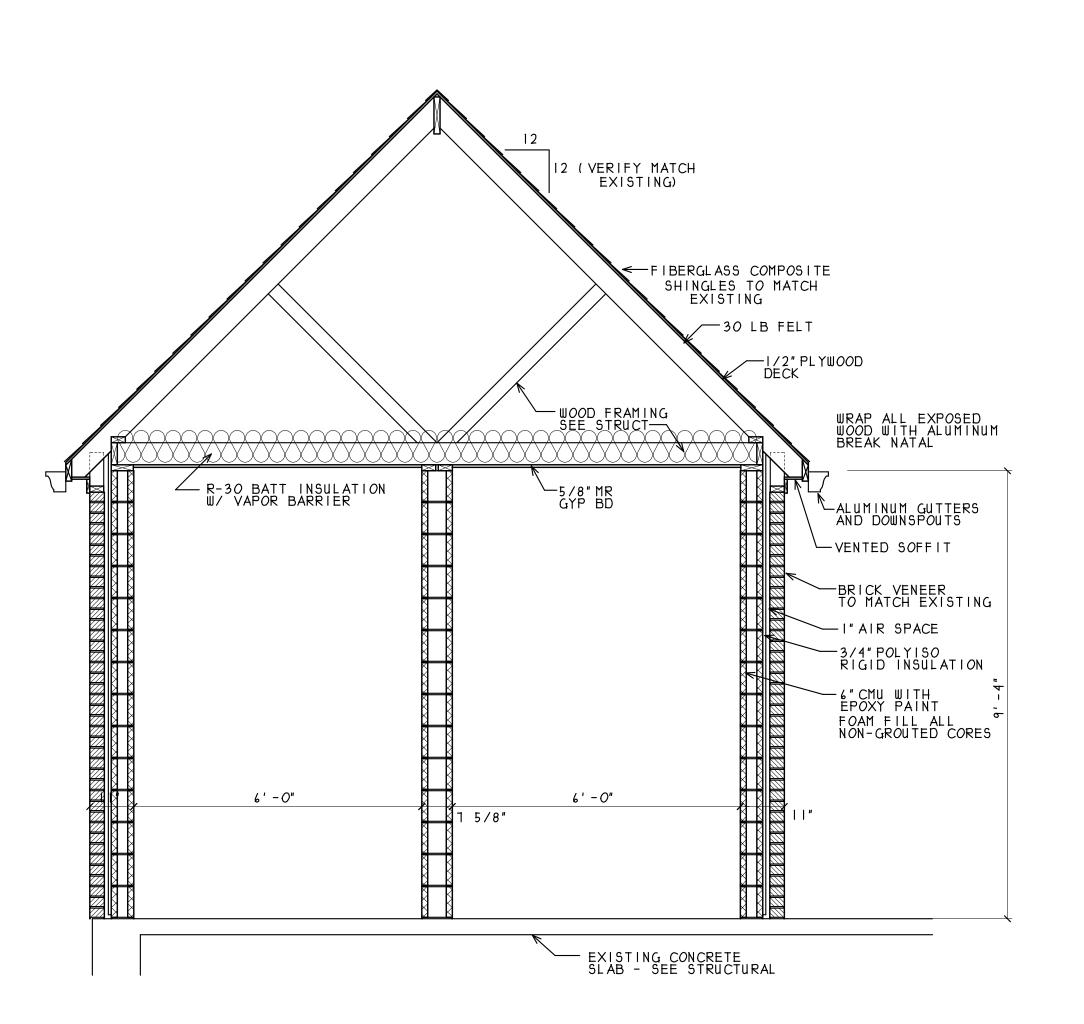
· 2018 International Energy Conservation Code

· 2017 ICC A 117.1 Accessible and Useable Buildings & Facilities · 2018 NFPA Life Safety Code 101 · 2017 National Electric Code

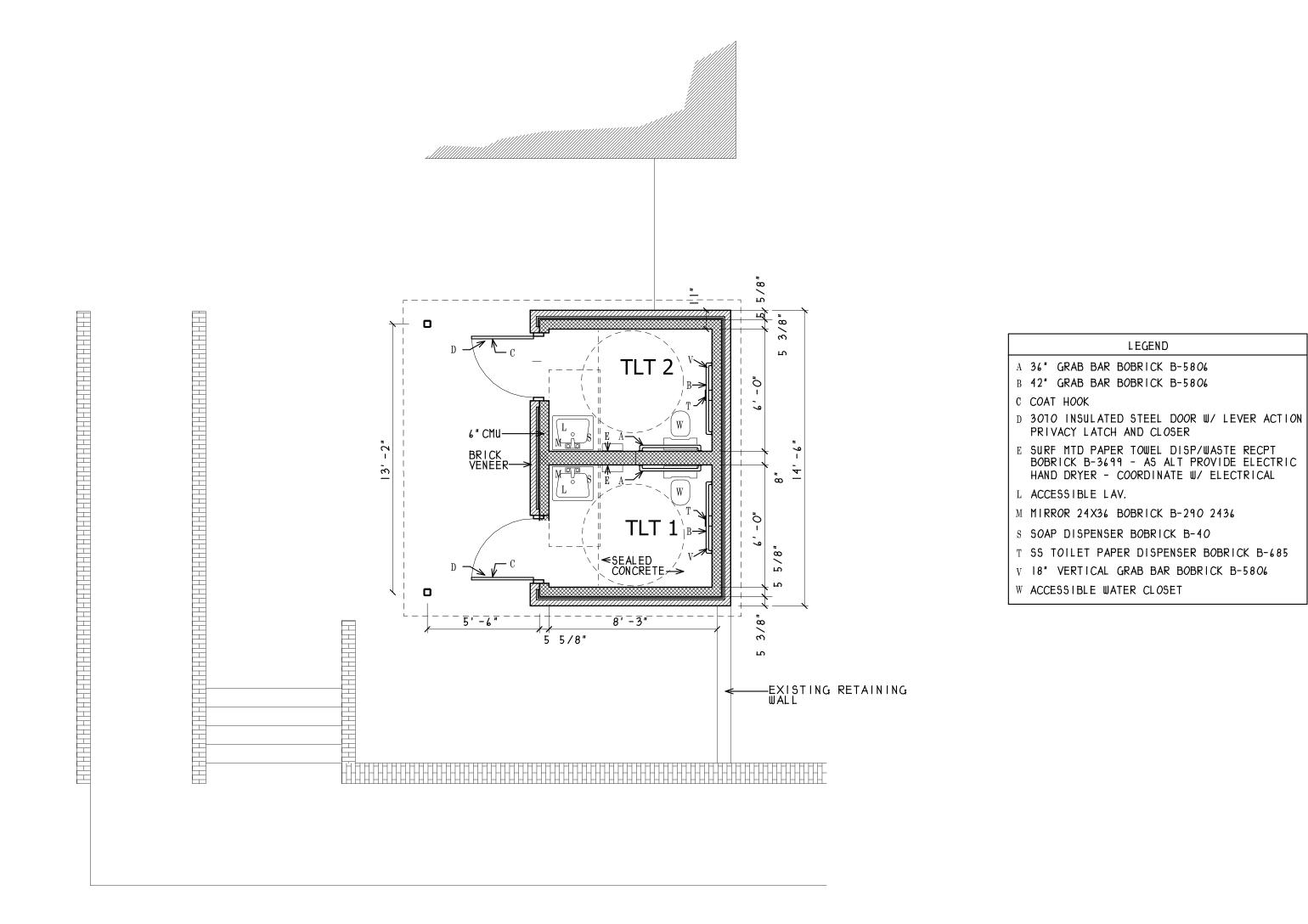
AMERICANS WITH DISABILITIES ACT (ADA)

ALL IBC W/ LOCAL AMENDMENTS





SECTION



LEGEND

TN 37350-1009

Brow

DESIGNER REVIEWER

PROJECT

date 6/10/21

SHEET A -

- 1. Furnish & install all pipe, valves, and fittings with complete and satisfactory installation including all necessary parts and devices, accessories, etc. as required by local, state, and national codes.
- 2. All work shall be performed in strict accordance with all codes and ordinances. 3. The following items shall require submittals: pipe & fixtures; plumbing fixtures; valves; water heaters.
- 4. Waste and vent piping and fittings shall be solvent cement joint schedule 40 PVC. 5. All water piping shall be copper tube ASTM-88. Water piping below grade shall be Type K soft annealed. Water piping above grade shall be Type L hard draw.
- Fittings shall be wrought with lead free solder. 6. All water piping above slab in unconditioned areas shall be insulated with fiberglass insulation with an all service jacket. Insulation thickness: Pipe 1" and
- smaller: ½" thick; Pipe 1 1/4" and larger: 1" thick.* 7. All water piping below slab shall be insulated with foam cell insulation 1" thick. 8. All related materials including insulation cloths, cements, jackets, facings, adhesives, tapes, etc. shall have a composite fire and smoke hazard rating not to exceed a flame spread rating of 25 and developed smoke rating of 50.
- 9. Provide dielectric unions when joining dissimilar metals. 10. Approved standard weight valves suitable for a working pressure minimum of 125
- 11. Gate valves shall be brass with operating wheels, packing glands, and rising
- 12. Vacuum breakers shall be installed on all fixtures where required by codes. 13. Make all water and air tests of the plumbing systems in the presence of and to the satisfaction of the architect or his designated representative. All tests shall be conducted prior to them being covered and sealed.
- 14. The piping system shall be sterilized and comply with all the governing regulations and with the sterilization procedures as recommended by the American Water
- * PEX TUBING MAY BE USED IN LIEU OF COPPER IF APPROVED BY CODES

PLUMBING FIXTURES SPECIFICATIONS

NOTE: All specified plumbing fixtures may be substituted with those of equal quality and function. Prior to purchase, all plumbing fixtures MUST be approved by owner

ADA FLUSH VALVE WATER CLOSET KOHLER K-96057 1.6 12 EB VC BOWL *HIGHCL WHIT ZURN ZZ6000WS1YBYC 1.6 CLST FLUSH VLV W/ SWT KIT PROFLO PFTSCOF2000WH EB CLST SEAT COMM OFLC WHIT

LAVATORY (WALL HUNG, A.D.A. COMPLIANT) AMERICAN STANDARD MODEL #0321.026 SYMMONS #5-20 SINGLE LEVEL HANDLE FAUCET McGUIRE #155-A GRID DRAIN McGUIRE 1 1/4 IN # 8872 P-TRAP McGUIRE #2165CC SUPPLIES

FLOOR DRAIN J. R. SMITH MODEL # 3430

PRO-VENT SYSTEM TRAP GUARD J. R. SMITH MODEL #2632

WATER HEATER (INSTANTANEOUS): EEMAX TANKLESS WATER HEATERS, MODEL SP2435, 3.5 KW, 240-1-60. (NOTE: PROVIDE AND INSTALL T & P RELIEF VALVE AS REQUIRED BY LOCAL CODE.)

HOT WATER	
COLD WATER	
SEWER	
VENT	

Project I	mormation		
Energy Cod		2018 IECC	
Project Title	:	INLINE RAILWAY	
Location:		Chattanooga, Tennessee	
Climate Zor Project Type		4a New Construction	
r roject ryp	.	New Constituction	
Control of the Contro	n Site: OW ROAD NOOGA, TN	Owner/Agent:	Designer/Contractor:
	al Efficiency Package(s	3)	
Unspecified Mechanic	cal Systems List	•	
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti	ion	
Unspecified Mechanic	cal Systems List System Type & Descripti HVAC System 1 (Single Zone	ion	
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump	ion (s):	
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20	ion e): kBtu/h, HSPF, Required Efficiency = 8.20 HSP	F
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20 Cooling Mode: Capacity = 18	ion s): kBtu/h, HSPF, Required Efficiency = 8.20 HSP kBtu/h,	
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20 Cooling Mode: Capacity = 18	ion e): kBtu/h, HSPF, Required Efficiency = 8.20 HSP	
Unspecified Mechanic Quantity 1	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20 Cooling Mode: Capacity = 18 Proposed Efficiency = 14.0 Fan System: None	ion s): kBtu/h, HSPF, Required Efficiency = 8.20 HSP kBtu/h,	
Unspecified Mechanic Quantity	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20 Cooling Mode: Capacity = 18 Proposed Efficiency = 14.0	kBtu/h, HSPF, Required Efficiency = 8.20 HSP kBtu/h, 0 SEER, Required Efficiency: 14.00 SE	
Unspecified Mechanic Quantity 1	cal Systems List System Type & Descripti HVAC System 1 (Single Zone Split System Heat Pump Heating Mode: Capacity = 22 Proposed Efficiency = 8.20 Cooling Mode: Capacity = 18 Proposed Efficiency = 14.0 Fan System: None Water Heater 1: Electric Instantaneous Water	kBtu/h, HSPF, Required Efficiency = 8.20 HSP kBtu/h, 0 SEER, Required Efficiency: 14.00 SE	

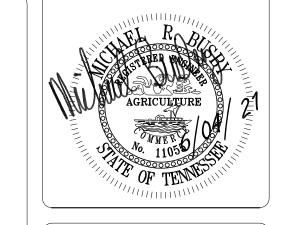
INCLINE RAILWAY SPECIFICATIONS (UNIT #1) SPLIT HT PUMP (MITSUBISHI OR EQUAL) MXZ-2B20NA-1/TWO FE09NA-8 NOMINAL TONS 0.75 EA 343 EA DESIGN CFM COOLING CAPACITY, BTUH 9000 EA HTING CAPACITY, BTUH @ 47 F 10900 EA V/PH/HZ (CU) 208-230/1/60 MCA/MOCP (CU) 208-230/1/60 V/PH/HZ (AH) 1 A EA EF: PENN-ZEPHR Z3H: 39 W; 0.5 A; 1550 RPM; 70 CFM @ 0.125 " **GENERAL NOTES** 1. CO-ORDINATE EXACT LOCATION OF AHUS WITH ARCHITECT CEILING PLAN AND ELECTRICAL LIGHTING 2. INSTALL ALL SYSTEMS IN COMPLIANCE WITH LOCAL, STATE, AND 3. MECHANICAL CONTRACTOR TO INSTALL REFRIGERANT LINES IN ACCORDANCE TO MANUFACTURER'S DATA AND TO PROVIDE OUTDOOR UNIT CONCRETE PADS. 4. HVAC CONTRACTOR TO COORDINATE AND VERIFY ALL UNIT SPECIFICATIONS AND ELECTRICAL REQUIREMENTS PRIOR TO PURCHASE

OF EQUIPMENT AND INSTALLATION

M.R.BUSBY, P.E. LLC

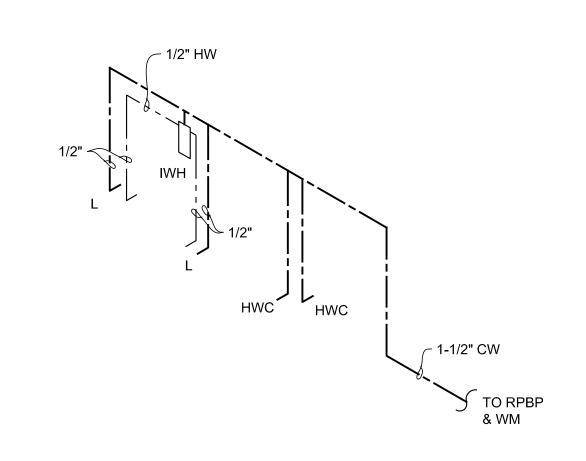
→ P.O. BOX 813 GOODLETTSVILLE, TN. 37070-0813

PHONE: (615) 512-7597



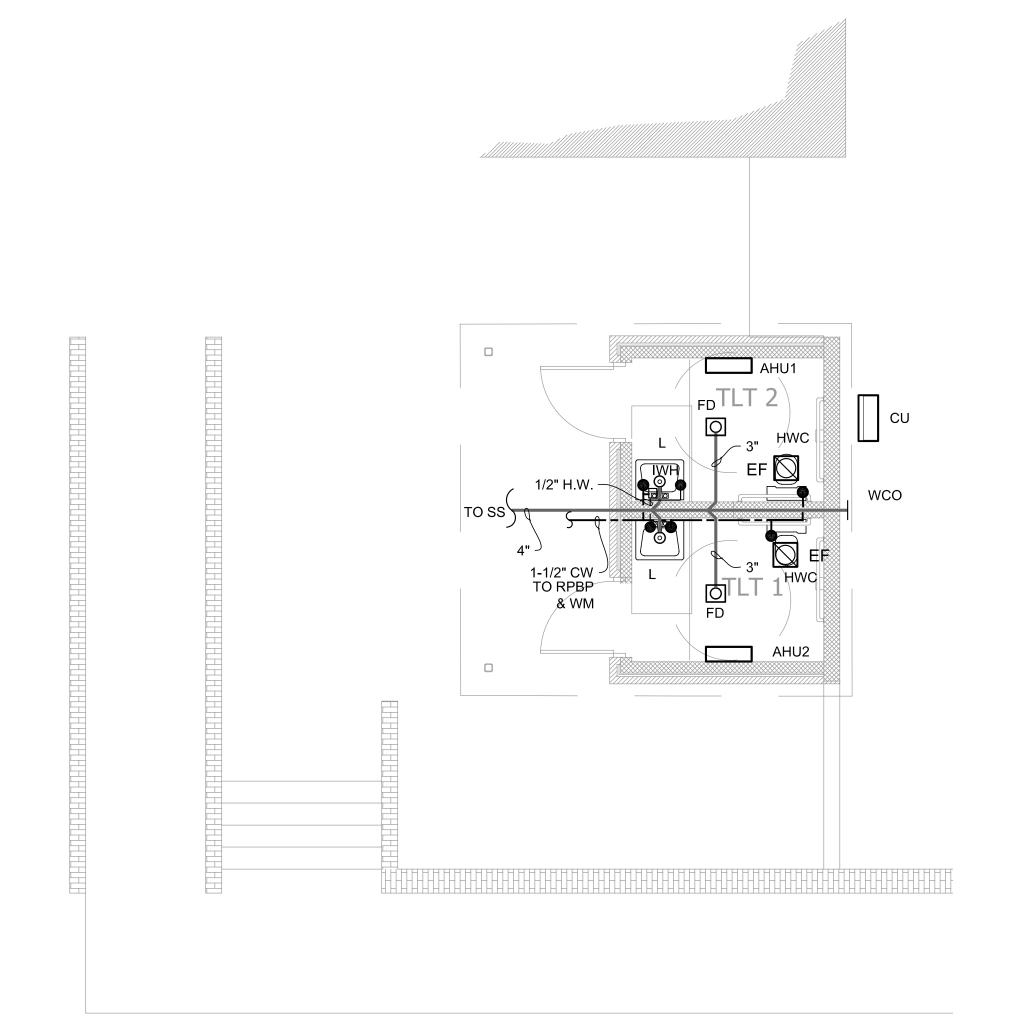
DESIGNER REVIEWER

PROJECT



WASTE RISER SCALE: NTS

SUPPLY RISER SCALE: NTS



MECHANICAL/PLUMBING FLOOR PLAN

SCALE: 1/4"=1'-0"

ELECTRICAL LEGEND

CONDUIT RUN CONCEALED IN WALL, CEILING, OR FLOOR HOMERUN TO PANEL INDICATED

RECEPTACLE, DUPLEX, 120V, 15A. UNO, @ 18" AFF

RECEPTACLE, DUPLEX, 120V, 15A. UNO, SMH

JUNCTION BOX, SIZE AS REQUIRED

SWITCH, THREE POLE, 120/277V, 20A, MTD ADJACENT TO AHU

SWITCH, TWO POLE, 120/277V, 20A, MTD ADJACENT TO IWH BELOW SINK

SWITCH, OCCUPANCY SENSOR. PIR TECHNOLOGY, 120/277V, 45" AFF

LIGHTING FIXTURES SEE FIXTURE SCHEDULE

DISCONNECT SWITCH, NON-FUSED, DESCRIBED BY: VOLTAGE RATING/NO. OF POLES/SWITCH SIZE IN AMPS

DISCONNECT SWITCH, FUSED, DESCRIBED BY: VOLTAGE RATING/NO. OF POLES/FUSE SIZE IN AMPS

ABBREVIATIONS:

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

AIR HANDLING UNIT

CENTERLINE

CONDENSING UNIT

EXISTING

EXHAUST FAN

GROUND FAULT INTERRUPTER

INSTANTANEOUS WATER HEATER

MOUNTED

SPECIAL MOUNTING HEIGHT (4" ¢ ABOVE CASEWORK/BACKSPLASH OR 45" ¢ AFF IF NO CASEWORK/BACKSPLASH)

UNO UNLESS NOTED OTHERWISE

TRANSFORMER

WP WEATHERPROOF

GENERAL ELECTRICAL NOTES

VISIT PROJECT SITE BEFORE SUBMISSION OF BID AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND LOCATIONS OF UTILITIES. <u>ELECTRICAL CONTRACTOR SHALL VERIFY</u> <u>EXISTING FEEDER TO EXISTING 225 AMP, 240 VOLT, 1 PHASE PANEL HAS ADEQUATE CAPACITY</u> PER 2017 NATIONAL ELECTRICAL CODE ARTICLE 220.87 (EXCEPTION) AND THAT ANY EXISTING UPSTREAM PANEL HAS CAPACITY PER 2017 NATIONAL ELECTRICAL CODE (ARTICLE 220.87 (EXCEPTION)) PRIOR TO BEGINNING ANY WORK. NOTIFY THE OWNER'S REPRESENTATIVE AND DRC ENGINEERING IMMEDIATELY IF ANY EXISTING PANEL DOES NOT HAVE CAPACITY FOR THE

2. VERIFY ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT. PROVIDE CIRCUITS AND FUSES SIZED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

3. MAINTAIN CODE REQUIRED WORKING CLEARANCE AT ALL ELECTRICAL PANELS, DISCONNECT SWITCHES, AND STARTERS. THERE SHALL BE NO EQUIPMENT, PIPING OR DUCT WORK INSTALLED IN OR ABOVE THE WORKING CLEARANCES.

4. PROVIDE DISCONNECT SWITCH FOR ANY HARDWIRED EQUIPMENT NOT SUPPLIED WITH DISCONNECTING MEANS.

5. SEE MECHANICAL PLANS FOR EXACT LOCATIONS AND CONTROL REQUIREMENTS FOR MECHANICAL EQUIPMENT. 6. CONNECT EXHAUST FAN TO LIGHT FIXTURE IN SAME SPACE SUCH THAT THEY ARE SWITCHED

7. CONNECT EMERGENCY LIGHTS WITH INTEGRAL BATTERY TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCH SUCH THAT THEY AUTOMATICALLY CONVERT TO BATTERY OPERATION UPON LOSS OF

8. REMOVE ALL WIRING DEVICES AND LIGHTING FIXTURES FROM WALLS AND CEILINGS AS REQUIRED BY ARCHITECTURAL MODIFICATIONS.

9. FURNISH AS-BUILT DRAWINGS FOR ELECTRIC POWER SYSTEMS WITHIN 30 DAYS OF BUILDING ACCEPTANCE TO TENANT'S REPRESENTATIVE.

10. FURNISH O & M INSTRUCTIONS FOR SYSTEMS AND EQUIPMENT TO THE TENANT'S REPRESENTATIVE.

11. TEST LIGHTING SYSTEMS TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMMING, AND OPERATION COMPLY WITH THE APPLICABLE INTERNATIONAL ENERGY CONSERVATION CODE BEING ENFORCED BY LOCAL AUTHORITIES.

12. LEGIBLY MARK THE SOURCE OF SUPPLY FOR ALL DISCONNECTING MEANS.

ELECTRICAL SPECIFICATIONS

FURNISH ALL THE MATERIALS, EQUIPMENT, AND SERVICES REQUIRED TO PROVIDE A COMPLETE, WORKING ELECTRICAL SYSTEM.

2. ALL MATERIALS SHALL BE NEW AND OF COMMERCIAL QUALITY. ALL MATERIALS FOR WHICH AN UNDERWRITERS LABORATORY STANDARD EXISTS SHALL BEAR THE U.L. LABEL

3. ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES.

4. SECURE AND PAY FOR ALL NECESSARY PERMITS AND CERTIFICATES OF INSPECTION

5. GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER.

6. SUBMIT PDF COPIES OF SHOP DRAWING FOR EQUIPMENT AND MATERIALS FURNISHED UNDER THIS CONTRACT.

7. COORDINATE ELECTRICAL WORK WITH VENDORS AND OTHER TRADES ON THE PROJECT. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT BEFORE ROUGH-IN. 8. PROVIDE ELECTRICAL SERVICE ENTRANCE EQUIPMENT THAT IS U.L. LABELED "SERVICE ENTRANCE USE".

9. INSTALL ALL POWER WIRING IN CONDUIT. USE EMT ABOVE FLOOR WHERE NOT EXPOSED TO WEATHER OR PHYSICAL DAMAGE. USE PVC UNDERGROUND AND UNDERFLOOR. USE RGS WHERE EXPOSED TO PHYSICAL DAMAGE AND USE RGS ELBOWS WHERE PVC ENTERS GROUND OR FLOOR

10. INSTALL ONLY COPPER WIRE WITH THWN OR THHN INSULATION FOR POWER WIRING.

11. INSTALL STEEL BOXES INDOORS AND CAST BOXES OUTDOORS. INSTALL WHITE (CONFIRM WITH OWNER'S REPRESENTATIVE PRIOR TO ORDERING) COLORED SWITCHES, RECEPTACLES, AND COVERPLATES.

COMcheck Software Version 4.1.1.0

Interior Lighting Compliance Certificate

Project Information

NORMAL POWER.

Energy Code: 2012 IECC Project Title: **INCLINE RAILWAY** Project Type: **New Construction**

Construction Site: Owner/Agent: 827 E BROW RD CHATTANOOGA, TN 37350

Additional Efficiency Package(s) High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist

Designer/Contractor:

Allowed Interior Lighting Power

requirements listed in the Inspection Checklist.

Daron R. Christy P.E.

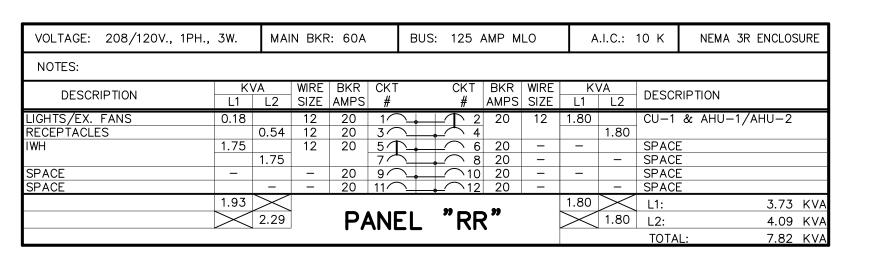
Name - Title

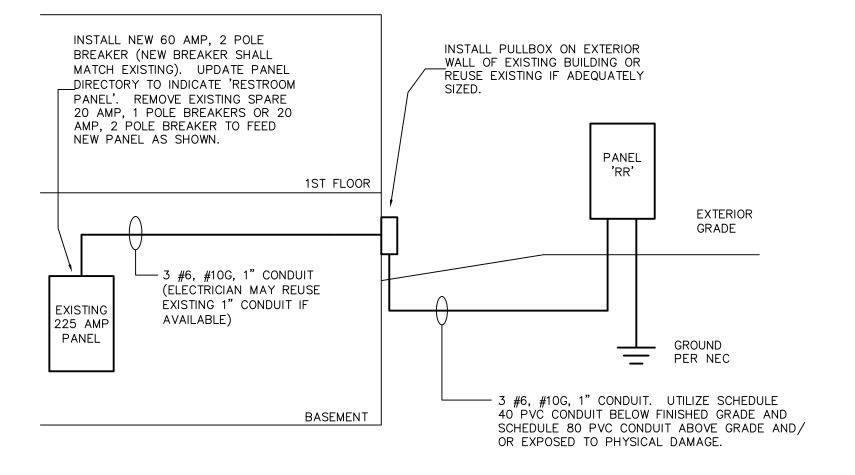
A Area Category	B Floor A (ft2)		C A ll owed Watts / ft		D ved Watts B X C)
1-Common Space Types:Restroom	1	38	1.00		138
		To	otal Allowed V	Vatts =	138
Proposed Interior Lighting Power					
A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast		B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Common Space Types:Restroom					
LED 1: A: 2X2 SURFACE LED: Other:		1	2	40	80
			Total Propos	sed Watts =	80
nterior Lighting PASSES: Design 42% better than code					
Interior Lighting Compliance Statement					

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans,

specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2012 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory

Project Title: INCLINE RAILWAY Report date: 06/07/21 Data filename: D:\DRC Engineering\02021\21042\21042 COMCHECK.cck Page 1 of 7





PARTIAL POWER RISER DIAGRAM

LIGHT FIXTURE SCHEDULE

Project Information

TYPE	DESCRIPTION	WATT	VOLT	MANUFACTURER
Α	SURFACE MOUNTED 2X2 LUMINAIRE, LED LIGHT SOURCE, UNIVERSAL VOLTAGE, 80 CRI, 0-10V DIMMABLE, 3500K COLOR TEMPERATURE, 4000/ 3300/2800 SWITCHABLE LUMENS	40	UNV	COLUMBIA LIGHTING #CFP222-40/33/2835-SRPSMK-2
В	6" LED DOWNLIGHT, 800 LUMEN OUTPUT, 3500 KELVIN, 90 CRI, WHITE TRIM, UNIVERSAL VOLTAGE, IC RATED, SUITABLE FOR WET LOCAT		UNV	PRESCOLITE #LBP6-6LBP8L35K-WH
 ЕМ	EMERGENCY LIGHT, WHITE HOUSING, DULA HEAD NICAD BATTERY, THERMOPLASTIC HOUSING, WALL MOUNTED ABOVE DOOR	1	UNV	COMPASS LIGHTING #CU2

COMcheck Software Version 4.1.1.0 **Exterior Lighting Compliance Certificate**

Energy Code: 2012 IECC Project Title: **INCLINE RAILWAY** Project Type: New Construction 4 (High activity metropolitan commercial district) Exterior Lighting Zone Designer/Contractor: Construction Site: Owner/Agent: 827 E BROW RD CHATTANOOGA, TN 37350 Allowed Exterior Lighting Power

Area/Surface Category Tradable Allowed Watts Watts / Unit Wattage (B X C) Total Tradable Watts (a) = Total Allowed Watts = Total Allowed Supplemental Watts (b) = 1300 (a) Wattage tradeoffs are only allowed between tradable areas/surfaces. (b) A supplemental allowance equal to 1300 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces. Proposed Exterior Lighting Power

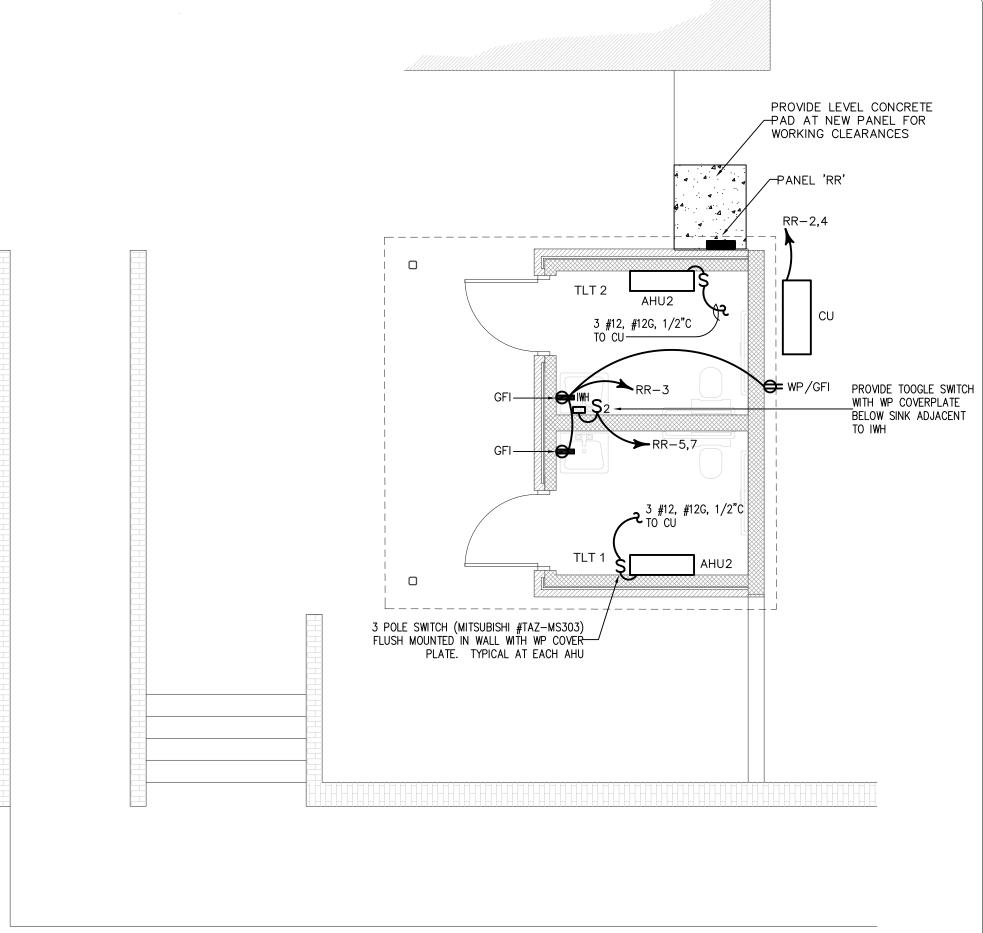
Lamps/ # of Fixture (C X D) Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast Fixture Fixtures Watt. Entry canopy (96 ft2): Tradable Wattage LED 1: B: LED DOWNLIGHT: Other: 1 2 10 Total Tradable Proposed Watts =

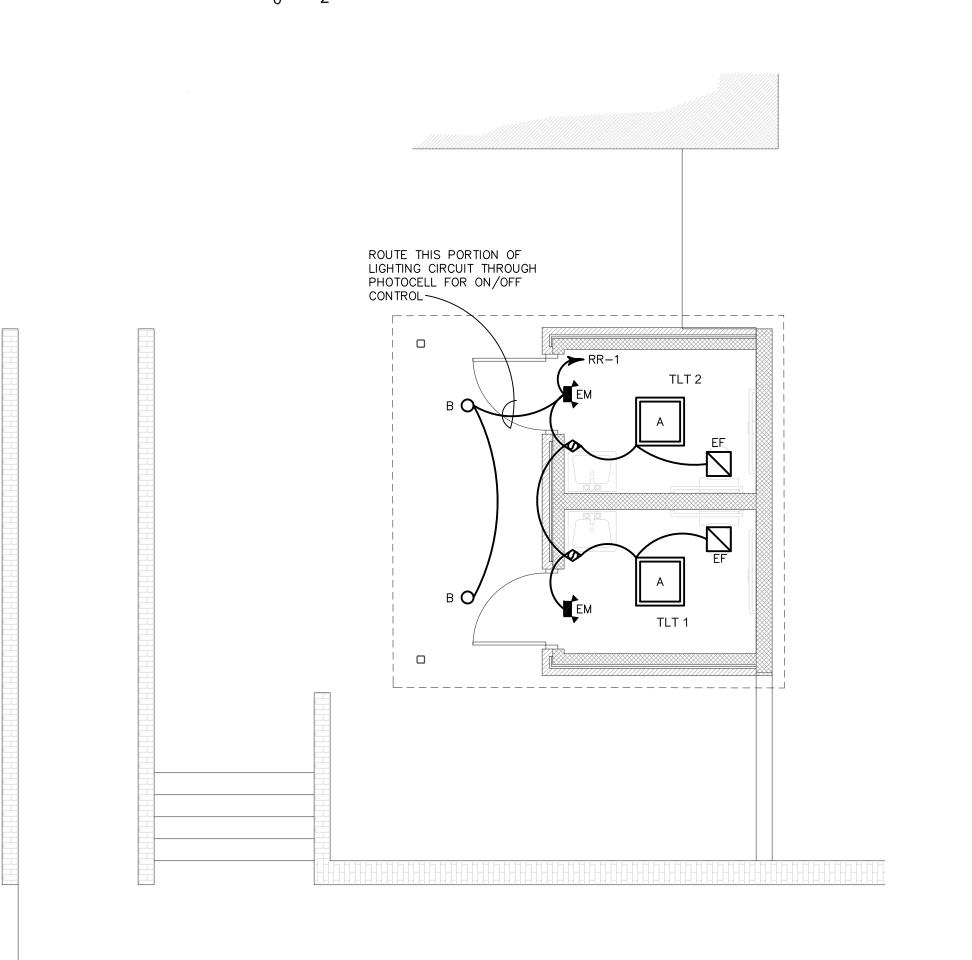
Exterior Lighting Compliance Statement

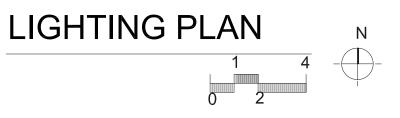
Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2012 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Daron R. Christy, P.E. Name - Title

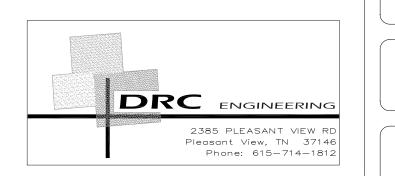
Project Title: INCLINE RAILWAY Report date: 06/07/21 Data filename: D:\DRC Engineering\02021\21042\21042 COMCHECK.cck Page 2 of 7







POWER PLAN





2 Ш Z TN 37350-1009

Rd,

DESIGNER REVIEWER

PROJECT

6/9/21 DATE

GENERAL NOTES

DESIGN CRITERIA

(1) CODE: INTERNATIONAL BUILDING CODE, 2012 EDITION WITH LOCAL AMENDMENTS

(2) DESIGN LOADS: DEAD LOADS:

SELF WEIGHT OF STRUCTURE

PERMITTED TO BE REDUCED PER IBC SECTION 1607.12.2.1

SNOW DESIGN CRITERIA: SNOW EXPOSURE C ----GROUND SNOW LOAD —————10 PSF

WIND DESIGN CRITERIA: RISK CATEGORY —————III

EXPOSURE CATEGORY ———— ENCLOSURE CLASSIFICATION ——ENCLOSED SEISMIC DESIGN CRITERIA:

IMPORTANCE FACTOR SITE CLASS SEISMIC DESIGN CATEGORY -0.192

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ARCHITECT & ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES ALL DIMENSIONS TO TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS, AND DETAILS

THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AS WELL AS ALL JOBSITE SAFETY AND MEASURES NECESSARY TO PROTECT THE PROPOSED AND EXISTING STRUCTURES. SUCH MEASURES INCLUDE, BUT ARE NOT LIMITED TO BRACING, SHORING FOR EXCAVATIONS, SHORING FOR CONSTRUCTION EQUIPMENT, FORMWORK, SCAFFOLDING, AND PROTECTION OF UTILITIES.

FOUNDATION NOTES

INDIVIDUAL FOOTINGS ARE DESIGNED TO BEAR ON UNIFORM SOIL CAPABLE OF SUPPORTING 2,000 PSF. STRIP FOOTINGS ARE DESIGNED TO BEAR ON UNIFORM SOIL CAPABLE OF SUPPORTING 2,000 PSF. IF POOR SOILS ARE ENCOUNTERED, THEY SHALL BE REMOVED AND FILLED IN WITH COMPACTED STRUCTURAL FILL.

THE SOIL BEARING CAPACITY AND CONSISTENCY SHALL BE VERIFIED FOR THE BUILDING LIMITS BY A PROFESSIONAL ENGINEER WHEN FOUNDATION EXCAVATIONS HAVE BEEN CARRIED DOWN TO THE PROPOSED ELEVATIONS BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 1'-6"BELOW FINISHED GRADE.

IF IT IS NECESSARY TO LEAVE FOOTINGS OPEN OVERNIGHT OR MAY BE EXPOSED TO RAINFALL, THEY SHALL BE COVERED AND THE GROUND SURFACE ALONG THE SIDES OF THE FOOTINGS SLOPED AWAY FROM THE FOOTING EXCAVATION. ALTERNATIVELY, THE EXCAVATION MAY BE UNDERCUT AND A 3 INCH THICK MUD MAT OF 2,000 PSI CONCRETE SHALL BE SUBMIT ALTERNATE ROOF DESIGN/LAYOUT TO EOR FOR APPROVAL PLACED IN THE BOTTOM TO PROTECT THE BEARING SOIL.

REINFORCED CONCRETE

REINFORCED CONCRETE DESIGNED PER ACI 318.

CONCRETE WORK SHALL CONFORM TO REQUIREMENTS OF ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE. THE COMPRESSIVE STRENGTH AT 28 DAYS OF ALL CAST IN PLACE CONCRETE SHALL BE 4,000 PSI

REINFORCING STEEL SHALL BE DEFORMED BARS ASTM A615 GRADE 60.

LAP SPLICES FOR REINFORCING BARS SHALL BE CLASS B IN ACCORDANCE WITH ACI 318-11, UNLESS NOTED OTHERWISE PROVIDE MINIMUM (2) #4 X 6'-0" BARS AT 45 DEGREES AT ALL REENTRANT CORNERS IN SLAB ON GRADE CLEAR CONCRETE COVER FOR REINFORCING STEEL (U.N.O.):

FOOTINGS: 2"FORMED EDGES

3"CAST AGAINST GROUND

SLAB ON GRADE: LOCATED IN TOP 1/3 OF SLAB MASONRY WALLS: LOCATE IN CENTER OF WALL

CONCRETE MIX DESIGNS SHALL BE ESTABLISHED BY THE SUPPLIER IN ACCORDANCE WITH ACI 318-11. MIX DESIGNS SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS TO VERIFY THE FOLLOWING: SHALL BE SUBMITTED WITH BACK-UP DATA PER ACI 318-11 TO THE ENGINEER FOR REVIEW PRIOR TO CONCRETE

- ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6 TO 8% ENTRAINED AIR.
- ALL CONCRETE PLACED SHALL BE VIBRATED WITH MECHANICAL VIBRATORS

FINISHED CONCRETE SLAB SHALL HAVE A HARD TROWELED FINISH IN ACCORDANCE WITH ACI 117

LONGITUDINAL REINFORCING STEEL IN BOND BEAMS, WALLS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-11 SECTIONS 5.6

CONCRETE MASONRY

USE A COARSE (PEA GRAVEL) GROUT.

CONCRETE MASONRY SHALL CONFORM TO THE NATIONAL CONCRETE MASONRY ASSOCIATION SPECIFICATIONS AND HAVE A DENSITY OF 125 PCF AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'm) OF 1500 PSI GROUT FOR FILLING CONCRETE MASONRY CELLS SHALL CONFORM TO STANDARD SPECIFICATIONS ASTM C476 AND SHALL HAVE A COMPRESSIVE STRENGTH (F'm) OF 3,000 PSI AT 28 DAYS. THE SLUMP SHALL BE BETWEEN 9 AND 11 INCHES. WHERE THE MINIMUM DIMENSION OF ANY CONTINUOUS VERTICAL CELL IS 3 INCHES OR LESS, USE FINE GROUT OTHERWISE

MORTAR FOR CONCRETE MASONRY SHALL BE TYPE 'S' AND SHALL CONFORM TO ASTM C-270

MASONRY CONSTRUCTION SHALL BE BUILT IN LIFTS NOT TO EXCEED 4 FEET PRIOR TO GROUTING CORES. KEY NEXT GROUT LIFT INTO PRIOR LIFT BY STOPPING FIRST LIFT 2"BELOW TOP OF BLOCK. DO NOT FORM GROUT KEYS IN BEAMS

ALL REINFORCING BARS IN FILLED CELLS SHALL BE DOWELED INTO FOOTINGS WITH STANDARD 90 DEGREE HOOKS AND DOWELED 7 INCHES INTO BOND BEAMS AT TOPS OF WALLS

REBAR POSITIONERS SHALL BE USED TO ENSURE PROPER BAR ALIGNMENT IN CELLS

MASONRY WALL CONTROL JOINTS SHALL BE LOCATED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

REINFORCEMENT IN WALLS SHALL BE PLACED IN THE CENTER OF THE WALL UNLESS NOTED OTHERWISE. ALL CELLS WITH VERTICAL REINFORCING BARS SHALL BE GROUTED SOLID.

<u>vertical reinforcing bars</u> shall be located within 16" of each side of openings, 8" of end of walls, and SPACED NO GREATER THAN 48"ON CENTER. ALL VERTICAL BARS SHALL BE #4 BARS HORIZONTAL REINFORCING BARS SHALL BE PROVIDED AT THE TOP OF WALLS AND BOTTOM AND TOP OF WALL OPENINGS AND SHALL EXTEND 24" OR 40 BAR DIAMETERS PAST THE OPENING. HORIZONTAL REINFORCEMENT SHALL CONSIST OF RESPECTIVE SIZE CMU BOND BEAMS W/ (2) #4's TYPICAL. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS AROUND

ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION ALLOWABLE STRESS

MATERIALS ARE TO BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

CHANNEL, PLATE, AND ANGLES - ASTM A-36 RECT. HSS - ASTM A500 GRADE B (Fy=46KSI)

ANCHOR RODS - ASTM F1554 GRADE 36 WELDS - E70 SERIES ELECTRODES

1. ALL MATERIAL SHALL BE CLEARLY MARKED WITH GRADE STAMPS

- 2. ALL LUMBER SHALL BE KILN-DRIED
- 3. PRESSURE TREATED LUMBER SHALL BE KILN DRIED AFTER TREATMENT
- 6. SHEATHING SHALL BE O.S.B. OR PLYWOOD CONFORMING TO DOC PS 1 OR PS 2 7. SHEATHING MATERIAL SHALL BE APA RATED SHEATHING GRADE
- 8. JOISTS, RAFTERS, HEADERS, AND SILLS SHALL BE NO.1 GRADE SOUTHERN PINE (SPIB) OR NO. 1/NO.2 SPRUCE PINE FIR (WWPA)

ROOF SHEATHING

- 1. EXTERIOR, PS 1 OR PS 2
- 2. SPAN RATING: 32/16
- 3. THICKNESS: 1/2"

FASTENING: USE 8d NAILS (1 3 MINIMUM PENETRATION INTO FRAMING AT 6 O.C. AT SUPPORTING EDGES AND 6 O.C. FOR INTERMEDIATE FRAMING MEMBERS.

ROOF<u>truss notes</u>

TRUSS SHOP DRAWINGS SHALL BE PREPARED AND CERTIFIED BY A QUALIFIED PROFESSIONAL ENGINEER IN LICENSED IN THE STATE OF TENNESSEE AND SHALL BE SUBMITTED TO EOR PRIOR TO MANUFACTURE. TRUSS MANUFACTURER MAY

TRUSS MANUFACTURER SHALL INDICATE ALL TEMPORARY AND PERMANENT BRACING AND BRIDGING REQUIREMENTS ON THE TRUSS ERECTION DRAWINGS

ROOF TRUSSES SHALL BE DESIGNED FOR L/240 TOTAL AND L/360 LIVE

INSTALLATION AND BRACING OF WOOD TRUSSES SHALL COMPLY WITH "HANDLING, INSTALLING, AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" (BCSI 1-08) AS PUBLISHED BY THE TPI AND WTCA

STATEMENT OF SPECIAL INSPECTIONS

SOILS AND FOUNDATIONS

- SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS TO VERIFY THE FOLLOWING:
- 1. MATERIAL BELOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY.
- 2. EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL 3. OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.

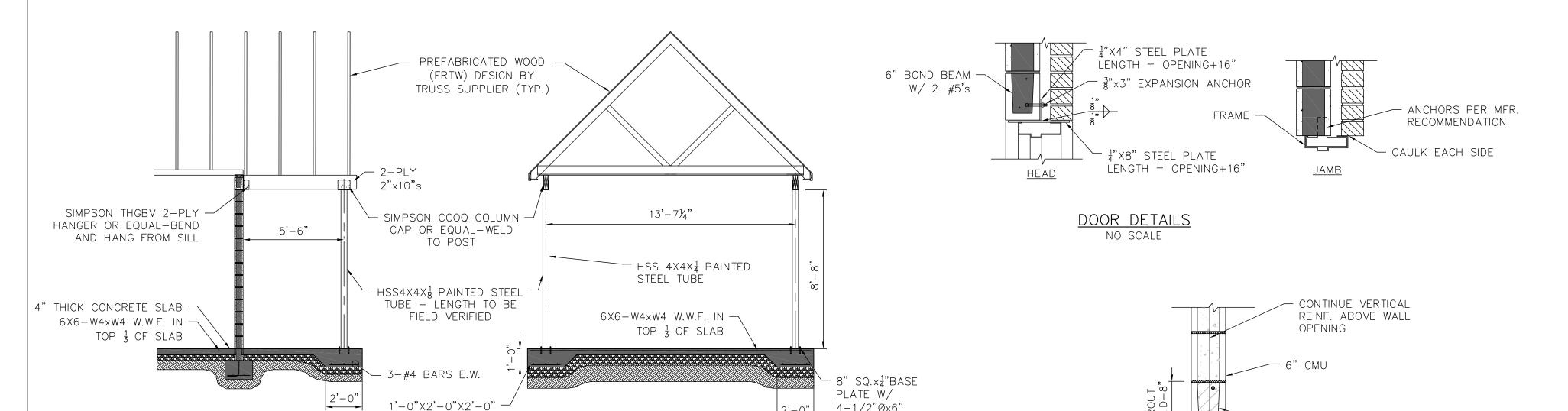
CONCRETE CONSTRUCTION

- 1. VERIFY LOCATION, QUANTITY, GRADE, AND PLACEMENT OF REINFORCING STEEL
- 2. INSPECTION OF ANCHORS POST-INSTALLED IN CONCRETE
- 3. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED.
- 4. VERIFY USE OF REQUIRED DESIGN MIX.
- SPECIAL INSPECTOR SHALL PERFORM CONTINUOUS INSPECTIONS TO VERIFY THE FOLLOWING:
- 1. FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AD AIR CONTENT TESTS, AND RECORD TEMPERATURE OF FRESH CONCRETE. (PER ACI 318-11 SECTION 5.6)

MASONRY CONSTRUCTION

SPECIAL INSPECTOR SHALL PERFORM INSPECTIONS TO VERIFY THE FOLLOWING:

PERIODICALLY VERIFY PROPORTIONS OF SITE PREPARED MORTAR, CONSTRUCTION OF MORTAR JOINTS, GROUT SPACE, GRADE TYPE, AND SIZE OF REINFORCEMENT AND ANCHORS, AND PLACEMENT OF MASONRY UNITS ARE IN COMPLIANCE CONTINUOUSLY VERIFY PLACEMENT OF REINFORCEMENT AND CONNECTORS, THE GROUT SPACE PRIOR TO GROUTING, AND THE TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS



4-1/2"Øx6"

(TYP.)

HEADED ANCHORS

6"x8" BOND BEAM W/ (1) #5 T&B

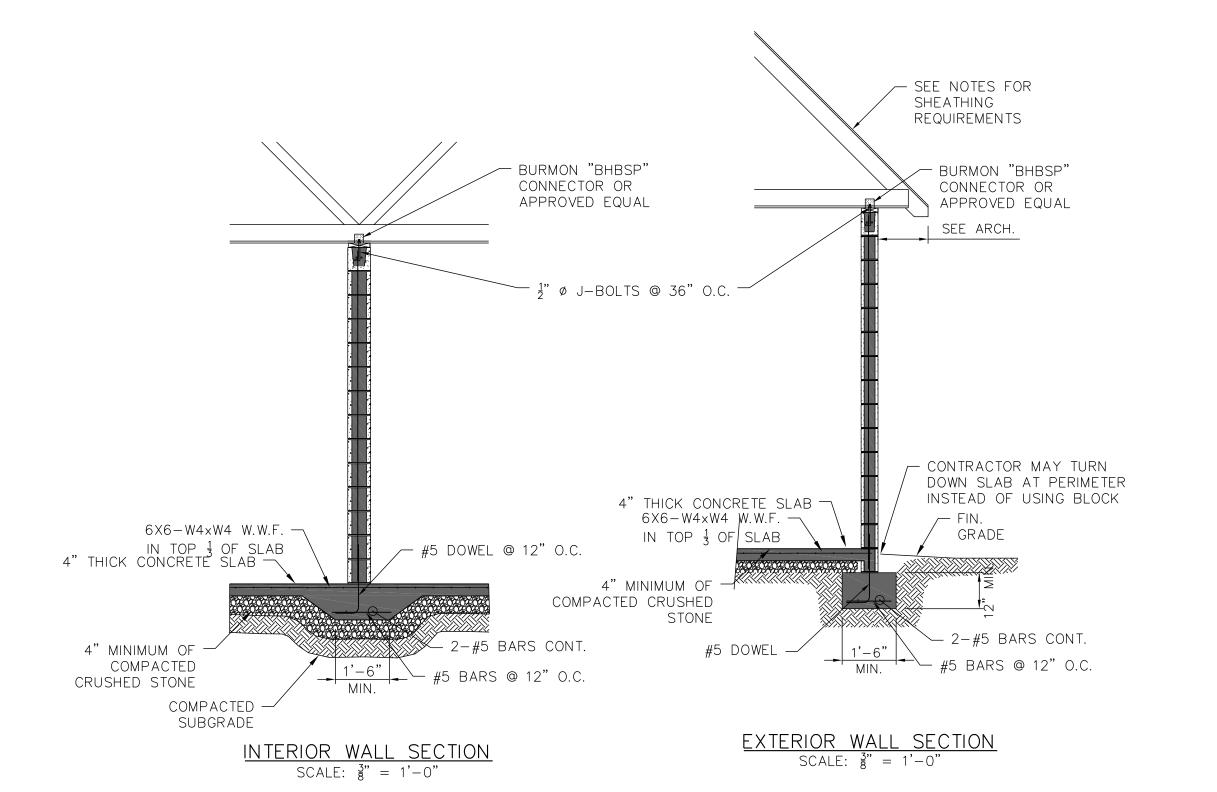
LINTEL DETAIL NO SCALE

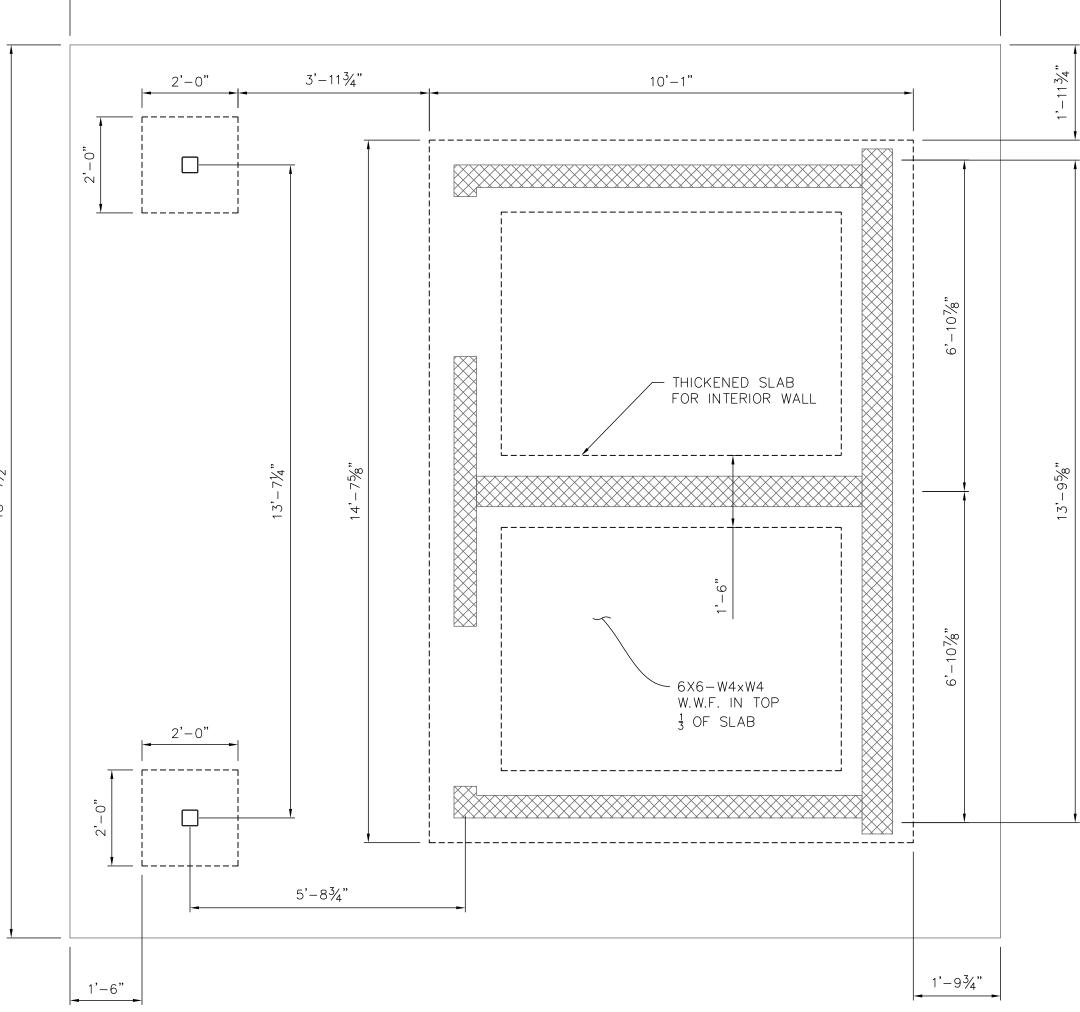
FRAMING SECTION AND ELEVATION

THICKENED CONCRETE

UNDER COLUMNS

FRAMING SECTION AND ELEVATION





19'-4½"

FOUNDATION PLAN SCALE: $\frac{1}{2}$ " = 1'-0"



DESIGNER **CYH** REVIEWER **SJC** 37350-1009

PROJECT

DATE 9/22/2023

S-SHEET