

City of Meriden, Connecticut

Purchasing Department

Invitation to Bid

For

ARPA- Meriden Boys and Girls Club Renovations

Meriden, CT

B024-01

Bids Due:February 29, 2024 @ 11:00 AM

Purchasing Department 142 East Main Street, Room 210 Meriden, CT 06450 (203) 630-4115

LEGAL NOTICE

INVITATION TO BID

The City of Meriden is accepting sealed bids for:

B024-01ARPA- Meriden Boys and Girls Club Renovations

The City of Meriden seeks the services of a qualified licensed and certified contractor to furnish labor and materials for interior and exterior renovations and modification of the Meriden Boys and Girls Club in accordance with the general conditions herein.

Bids shall be submitted on forms and in the manner specified. Forms and specifications may be obtained from the Purchasing Department, on the City of Meriden website (www.meridenct.gov/business/bids-rfps/), and on the State of Connecticut Department of Administrative Services website (https://webprocure.proactiscloud.com). Bids will be accepted at the Purchasing Department, 142 East Main Street, Room 210, Meriden, Connecticut 06450 until 11:00 A.M. local, Eastern Standard Time on February 29, 2024 at which time they will be publicly opened and read aloud. Any bid received after the time and date specified shall not be considered. A Non-Mandatory Pre-Bid Meeting will be held on Friday, February 2, 2024 @ 10:00 AM at Meriden Boys and Girls Club, 15 Lincoln Street Meriden, CT, 06451.

The right is reserved to reject any or all bids, in whole or in part, to award any item, group of items, or total bid, and to waive informality or technical defects, if it is deemed to be in the best interest of the City of Meriden. No bidder may withdraw its bid within sixty (60) days of the date of the bid opening.

Each bid shall be accompanied by a Certified Check or Bid Bond in the amount of Ten (10%) percent of the amount bid.

This is an ARPA funded project and all contractors are required abide by all State and Federal Guidelines.

The City of Meriden is an Affirmative Action/Equal Opportunity Employer. Disadvantaged, minority, small, and women business enterprises are encouraged to respond.

Rawle Dummett Purchasing Officer City of Meriden, CT 06450-8022 Dated:January 22, 2024

CITY OF MERIDEN, CONNECTICUT

B024-01– ARPA- Meriden Boys and Girls Club Renovations

INFORMATION TO BIDDERS

1. **BIDDING PROCEDURES**

Sealed Bids shall be submitted on the forms designated by the attached proposal bid forms. Bids will be received by the City of Meriden's Purchasing Department, Room 210, City Hall, 142 East Main Street, Meriden, Connecticut, 06450-8022 until **11:00 a.m. on February 29, 2024** and thereafter immediately read in public (the "bid opening").

2. <u>BIDS</u>

Bids are to be submitted on the attached proposal forms. Please submit two copies of the proposal forms and Bidder's Qualification Statement. One shall be an original and one can be a copy. **Please submit one complete copy of your bid on a flash drive.**

BID WILL BE AUTOMATICALLY REJECTED FOR ANYONE SUBMITTING A SURETY OTHER THAN THOSE SPECIFIED.

- a. Bids must be made out and signed in the corporate, or other, name of Bidder, and must be fully and properly executed by an authorized person.
- b. The sealed envelope must denote the Bidder's name and address in the upper left hand corner and the words **"BID DOCUMENT B024-01 ARPA- Meriden Boys and Girls Club Renovations** to be opened at 11:00 a.m." in the lower left hand corner.
- c. Bids received later than the time and date specified will not be considered.
- d. Amendments to or withdrawal of bids received later than the date and time set forth in the bid opening will not be considered.
- e. All prices must be in ink or typewritten. In the event of a bidder's mathematical error in tabulating any bid prices, *the written unit prices shall govern*.

3. BIDDER QUALIFICATIONS

Bidders will be required to fill out, and include as part of its bid, any attached Bidder's Qualification Statement.

In determining the qualifications of a bidder, the City of Meriden will consider the bidder's record of performance in any prior contracts for construction work. The City of Meriden expressly reserves the right to reject a bid if the bidder's historical performance, in the sole opinion of the City of Meriden, has been unsatisfactory in any manner or if the bidder has habitually and without just cause neglected the payment of bills or has otherwise disregarded its obligations to subcontractors, suppliers, or employees.

4. EXAMINATION OF BIDDING DOCUMENTS

Bidders are to examine all documents and visit the site in order to make a thorough examination of the conditions so that the bidder may familiarize itself with all of the existing requirements, conditions, and difficulties that will affect the execution of the work in order to determine the amount of work necessary to carry out the true intent of the specifications and work shown on the drawings.

The City of Meriden and its agents do not have any responsibility for the accuracy, completeness, or sufficiency of any bid document obtained from any other source other than from the City of Meriden. Obtaining documents from any other source(s) may result in obtaining incomplete and inaccurate information. Obtaining documents from any other source may also result in failure to receive any addenda, corrections, or other revisions to the documents that may be issued.

No request shall be honored if such request is made less than seven (7) calendar days prior to the date fixed for the opening of bids. Any and all such interpretations, and any supplementary instructions, will be in the form of a written addenda to the specifications which, if issued, will be made available on the City of Meriden website (www.meridenct.gov) unless it is to change the date fixed for the opening of bids, not later than three (3) days prior to the date fixed for the opening of bids. Bidders are encouraged to check the website regularly for addenda. Failure of any bidder to receive any such addenda shall not relieve any bidder from any obligations under its bid as submitted.

Any questions about the bid document must be submitted in writing via email to <u>meridenpurchasing@meridenct.gov</u>. Any other format of question will not be answered.

5. <u>BIDS TO REMAIN OPEN</u>

No bidder may withdraw its bid within sixty (60) days of the date of the bid opening. Should there be reason why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the City of Meriden and the successful bidder.

6. <u>AWARD OF CONTRACT</u>

The Purchasing Officer reserves the right to make an award on the bid which, by the Purchasing Officer's judgment and recommendation from the Purchasing Department following bid evaluations, best meets the specifications and is deemed to be in the best interest of the City of Meriden.

The contract will <u>not</u> be awarded to any corporation, firm, or individual which/who is in arrears to the City of Meriden by debt or contract, or who is in default as security or otherwise by any obligation to the City of Meriden.

The right is reserved to reject any or all bids, in whole or in part, to award any item, group of items, or total bid, and to waive informality or technical defects, if it is deemed to be in the best interest of the City of Meriden.

7. <u>BID PROTEST PROCEDURE</u>

In the event that any bidder wishes to protest the potential award of a bid, or any procedure of act in the advertising or soliciting of the bids, said bidder must make said protest in writing, which shall state the reason therefore and request a conference with respect thereto. Said protest must be received in the City Purchasing Office within **FIVE (5)** business days after the delivery of bid results or decisions. A conference with respect to said protest shall be scheduled by the Purchasing Officer forthwith and shall be attended by him or his designee and such other persons as the Purchasing Officer and the City Manager shall require to attend. The subject matter of said conference. Said conference shall also include a discussion of all possibilities for a resolution of dispute. The City shall make a decision in writing within three (3) business days after said conference and forward the same to the protesting bidder forthwith. In the event that any protesting bidder wishes to take legal action against the City, they must fully comply with all of these instructions to bidders.

8. <u>CITY OF MERIDEN, LOCAL PREFERENCE</u> – N/A

9. <u>EXTENSION OF AGREEMENT</u> – N/A

10. <u>TIME</u>

Inasmuch as the contract concerns a public improvement, the provisions of the contract relating to the time of performance and completion of the work are of the essence of the contract. Accordingly, the successful bidder/contractor ("Contractor") shall begin work on the day specified in paragraph 2.04 of the General Conditions and shall perform the work diligently so as to permit full use not later than the first day following the construction period established in the Contract. See paragraph 10 entitled "Liquidated Damages" of the Agreement between City of Meriden, as owner, and the Contractor.

11. SCHEDULE OF WORK

The Contractor shall schedule all work in a manner that will not disrupt City of Meriden operations. Once the work has begun, the Contractor shall work full-time until completion of the Contract.

12. <u>TAXES</u>

The City of Meriden is exempt under Connecticut General Statutes from the payment of the excise taxes imposed by the federal government and the Sales and Use Tax of the State of Connecticut; such taxes should not be included in the bid price. Upon request, exemption certificates will be furnished to the successful bidder.

13. FAIR EMPLOYMENT PRACTICES

The Contractor shall agree that neither it or its subcontractors, except in the case of a bona fide occupational qualification or need, to refuse to hire or employ or to bar or to discharge from employment any individual or to discriminate against such individual in compensation or in terms, conditions or privileges of employment because of the individual's race, color, religious creed, age, sex, gender identity or expression, marital status, national origin, ancestry, present or past history of mental disability, intellectual disability, learning disability, physical disability, including, but not limited to, blindness or status as a veteran. The aforementioned terms are obtained from Connecticut General Statutes Section 46a-60, *et seq.*, entitled "Discriminatory employment practices prohibited," as amended.

14. FORM OF AGREEMENT BETWEEN CITY OF MERIDEN AND CONTRACTOR

The Agreement for the work will be written on the Agreement between City of Meriden and Contractor, wherein the basis of payment is a stipulated sum.

15. LOCAL SUBCONTRACTORS, SUPPLIERS, etc.

Local subcontractors, material suppliers, and labor in the City of Meriden should be considered and sought out insofar as it is practical in the performance of this project.

16. CITY OF MERIDEN CODE OF ETHICS

The City of Meriden has adopted a Code of Ethics located in Chapter 21 of the Code of the City of Meriden, sections 21-1 through 21-15, inclusive, which are expressly incorporated herein by reference. The terms of the Code of Ethics shall constitute a part of any contract or agreement entered into by the City of Meriden as a result of this bid as if those terms were fully set forth in such contract or agreement.

Bidders are specifically advised that the Code of Ethics prohibits public officers and employees, as well as their immediate families and businesses, with which they are associated from participating in any transaction which is incompatible with the proper discharge of official duties or responsibilities. Bidders are also advised that the Code of Ethics contain provisions with respect to paid contractors and former employees and officials.

BIDDERS SHOULD NOTE THAT BIDS, CONTRACTS, AND AGREEMENTS ENTERED INTO OR AWARDED IN VIOLATION OF THE CODE OF ETHICS ARE VOIDABLE BY RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MERIDEN.

Copies of the Code of Ethics may be obtained from the office of the City Clerk or may be found online on the City of Meriden's website.

17. NON-COLLUSION BID STATEMENT

Each bidder submitting a bid to the City of Meriden for any portion of the work contemplated by the documents on which bidding is based shall execute and attach thereto the sworn Non-Collusive Bid Statement, to the effect that the bidder has not colluded with any other person, firm, or corporation in the submission of the bid.

18. SOIL CONDITIONS

The City of Meriden does not guarantee the accuracy of any information which it may have obtained as to the kind or condition of the soil that may be encountered in the performance of the proposed work; neither does the City of Meriden represent that the plans and specifications drawn are based upon any soil data so obtained. The City of Meriden does not make any representations as to the soil data so obtained. The City of Meriden does not make any representations as to the soil conditions to be encountered or as to foundation materials.

19. AWARD IN CASE OF A TIE

In the event there are two or more responsive bidders, the decision to award will be based by the following criteria and in the following order:

- a. The incumbent will be awarded the bid over that of another bidder.
- b. In the case of a multi-item bid, if one bidder has been awarded other items from the same bid and the other bidder has not, the bidder with the multiple awards will be awarded the bid over that of another bidder.
- c. The bidder located in the State of Connecticut will be awarded the bid over that of another bidder.
- d. The winner of a coin toss will be awarded the bid over that of another bidder.

The above-referenced provisions do not apply to those situations in which more than one City-based business responsible bidder has submitted bids not more than ten (10) percent higher than the lowest bid and has agreed to accept the award of the bid at the amount of the lowest bid. Under such circumstances, the provisions of the Code of the City of Meriden, section 3-14, are controlling, as set forth under Section 8 of this 'Information to Bidders.'

20. ASSIGNMENT OF CONTRACT

No contract may be assigned without the written consent of the Purchasing Officer or designee.

21. PERMITS

The Contractor shall be responsible for obtaining any and all necessary permits required by the City of Meriden prior to the commencement of work. The Contractor may contact the City of Meriden Building Department for permit information at (203) 630-4091. For all other required permits, contact the City of Meriden Engineering Department at (203) 630-4018.

22. BID PRICE AND PAYMENT

The City of Meriden is exempt from the payment of the excise taxes imposed by the Federal government and the Sales and Use Tax of the State of Connecticut under Connecticut General Statutes; accordingly, such taxes shall not be included in the bid price.

The City of Meriden, unless stated otherwise in the bidding documents or Contract, will make payment to the Contractor not less than thirty (30) days following completion of services.

23. QUALITY

All materials, equipment, supplies, and services shall be subject to rigid inspection. If defective material, equipment, supplies, or services are discovered, the Contractor shall remove or make good such material, equipment, or supplies without extra compensation. It is expressly understood and agreed that any inspection by the City of Meriden will in no way lessen the responsibility of the Contractor or release Contractor from the obligation to perform and deliver to the City sound and satisfactory materials, equipment, supplies, or allow the cost to be deducted from any monies due it from the City of Meriden. All services will be performed in a workmanlike manner.

24. INSURANCE

The successful bidder shall be required to provide a Certificate of Insurance denoting general liability, automobile liability, workers compensation liability, and other coverage required by the City's Risk Manager.

25. <u>CITY HALL CLOSING</u>

If Meriden City Hall is closed due to inclement weather, or any other unforeseen event, bids will be due at the same time on the next business day that City Hall is open.

CITY OF MERIDEN, CONNECTICUT

B024-01 – ARPA- Meriden Boys and Girls Club Renovations

NON-COLLUSIVE BID STATEMENT/AFFIDAVIT

The undersigned bidder, having been duly sworn, does hereby depose and says:

- 1. The bid has been arrived at by the bidder independently and has been submitted without collusion and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the Invitation to Bid.
- 2. The contents of the bid have 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, and will not be communicated to any such person prior to the official opening of the bid.
- 3. The undersigned bidder is duly authorized to bind the business entity identified below.

The undersigned bidder further certifies, under oath, that this statement is executed for the purposes of inducing the City of Meriden to consider the bid and make an award in accordance therewith.

Signature of Bidder

Print Legal Name of Bidder

Relationship to Business Entity Below

Business Entity Name, Address, Telephone Number, and Email Address

STATE OF CONNECTICUT

COUNTY OF

)) ss:)

Duly sworn and subscribed to before me this ____ day of _____, 2024.

Notary Public My Commission Expires: Commissioner of the Superior Court

BIDDER'S QUALIFICATION STATEMENT

This Statement of Bidder's Qualifications is to be submitted by the bidder at the time of the bid opening. All questions must be answered and the data given must be clear and comprehensive. If necessary, questions must be answered on attached sheets. The bidder may submit any additional information they desire. It is understood that when the City has executed an Agreement, to which these General Conditions are a part, it is, in part, done upon the reliance of the answers provided herein by the bidder or the agent of the bidder.

Firm Name			
Address			
Telephone		Fax	
		President Vice President Secretary Treasurer	
Bank References:			
Bond surety Compar	ny:		
If a partnership, give employee.	names of partners. If a s	ole proprietorship, give name and title	of a least one responsible
		experience to perform work of this national the past five (5) years, with the name	
PROJECT	OWNER	TELEPHONE NUMBER CONTACT NAME	COST

- Minority owned business? ______ yes ______ no 1. Years organized. 2. Is your company a corporation ______ yes _____ no 3. If yes where incorporated? How many years have you been engaged in business under your present firm name? 4. 5. Former Firm Name (if any) List total number of Personnel 6. Is any principal of your firm an employee or public official of the City of Meriden, or an immediate 7. family member of an employee or public official of the City of Meriden? (Definition of immediate family includes: an individual's spouse, fiancé or fiancée; the parent, brother or sister of such individual or spouse; and the child of such individual or the spouse of such child.) _____yes _____no List Vehicles and Equipment that you will use to perform this work: (show age of vehicles and 8. equipment, sizes, capacities, etc. List the work to be performed by Subcontractors and summarize the dollar value of each subcontract. 9. 10. List the name and address of the more important contracts recently completed by you, starting the approximate gross cost for each, and the month and year completed:
- 11. General character of work performed by you_____
- 12. Have you ever failed to complete any contract awarded to you? If so, where and why?

13.	Have you ever	defaulted on a contract? If s	so where and wh	ny?
14.				n:
15.				be required by the City of Meriden?
16.		uested by the City of Meric		a, firm or cooperation to furnish any on of the recitals comprising this Statement of
Dated	l this	day ofd	20	
2	day	month	, _ `_	year
				Name of Bidder
Stata	of			Title
Count	tv of			
coun				
Name	2		0.	sworn deposes and says that they are
title		01	name of orga	nization
and th	nat the answers to	the forgoing question and	all statement the	rein contained are true and correct
	Subscribed and	sworn to before me		
this		day of	20	
	day	month	year	
				Notary Public signature
My co	ommission expire	s		

Special Requirements

(A) <u>Compliance with Nondiscrimination and Affirmative Action in accordance</u> with Section 4a-60 of the Connecticut General Statutes.

(1) (a) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, nation origin, ancestry, sex, mental retardation, mental disability, or physical disability, including, but not limited to, blindness, unless it is shown by contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The contractor further agrees to take affirmative action to unsure that applicants with job related qualifications are employed and that employees are treated when employed without regarded to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, mental disability, or physical disability, including, not limited to, blindness, unless it is shown by contractor that such disability prevents performance of the work involved; (b) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (c) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understand and each vendor with which such contractor has a contract or understand, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (d) the contractor agrees to comply with each provision of this section and Sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to Sections 46a-56, 46a-68e and 46a-68f; (e) the contractor agrees to provide the commission on human rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records, and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and Section 46a-56.

(2) If the contract is a public works contract, the contractor agrees and warrants that it will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.

(3) "Minority business enterprise" means any small contractor or supplier of materials fifty-one percent or more of the capital stock, if any, or assets of

which is owned by a person or persons: (a) who are active in the daily affairs of the enterprise, (b) who have the power to direct the management and policies of the enterprise and (c) who are members of a minority, as such term is defined in Section 32-9n (a) of the Connecticut General Statutes; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.

(4) Determination of the contractor's good faith efforts shall include but shall not be limited to the following factors: the contractor's employment and subcontracting policies, patterns, and practices; affirmative advertising, recruitment, and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works project.

(5) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

(6) The contractor shall include the provision of subsection (A)(1) and A(2) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of this Agreement with the State and such provisions shall be binding on a subcontractor, vendor, or a manufacturer unless exempted by regulations or order of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a mean of enforcing such provisions including sanctions or noncompliance in accordance with Section 46a-56 of the Connecticut General Statues; provided if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interest of the State and the State may so enter

(B) Further Agreements re Compliance with Nondiscrimination.

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; the contract agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor

with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to the employees and applicants for employment; the contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to Section 46a-56 of the Connecticut General Statutes; the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and Section 46a-56 of the Connecticut General Statutes.

(2) The contractor shall include the provision of subsection (B)(1) in every subcontract or purchase order entered into in order to fulfill any obligation of contract with the State such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provision including sanctions for noncompliance in accordance with Section 46a-56 of the Connecticut General Statutes; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contract may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interest of the State and the State may so enter.

For the purposes of sections (A) and (B) of this section 2.10, "contract" (3) means the Agreement and includes any extension or modification of the contract. "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorce, and "mental disability" means one or more mental disorders as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more disorders. Further, "contract" does not include a contract where each contractor is: (i) a political subdivision of the state, including, but not limited to, a municipality; (ii) a quasi-public agency, as defined in Section 1-120 of the Connecticut General Statutes; (iii) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in Section 1-267 of the Connecticut General Statutes; (iv) the federal government; (v) a foreign government; or (vi) an agency of subdivision, agency, state or government described in the immediately preceding enumerated items (i), (ii), (iii), (iv), or (v).

Executive Order No. Three. This Agreement is subject to the provisions (C) of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971 and, as such, this Agreement may be cancelled, terminated or suspended by the State Labor Commissioner for violation or of noncompliance with said Executive Order No. Three, or any State or Federal Law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to this Agreement. The parties to this Agreement, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to Agreement performance in regard to nondiscrimination, until the Agreement is completed or terminated prior to completion. The Applicant agrees as part consideration hereof, that this contract is subject to the guidelines and rules issued by the State Labor Commissioner to implement policies, will file all reports as required, and will fully cooperate with the State and the State Labor Commissioner.

(D) <u>Executive Order No. Sixteen.</u> This Agreement is subject to, and Applicant hereby agrees to abide by Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, and, as such, the Agreement may be cancelled, terminated or suspended by the State for violation or noncompliance with said Executive Order No. Sixteen.

(E) <u>Executive Order No. Seventeen.</u> This Agreement is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, as, as such, this Agreement may be cancelled, terminated or suspended by the Commissioner or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner may not be a party to this Agreement. The parties to this Agreement, as part of the consideration hereof, agree that the Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to Agreement performance in regard to listing all employment opening with the Connecticut Employment Service.

(F) <u>Environmental Laws.</u> The Applicant hereby agrees to indemnify and hold harmless the State from and against any liabilities, losses, damages, costs, or expenses, including attorneys' fees, arising out of or in connection with the presence of hazardous waste on or in any of the Site or any lien or claim under Section 22a-452a of the Connecticut General Statutes, as amended, or other federal, state, or municipal statue, regulation, rule, law, or proceeding relating to environmental matters, which indemnity shall survive the termination and/or release of the Project Documents.

(G) <u>Campaign Contribution and Solicitation Prohibitions.</u> For all State contracts as defined in P.A. 07-1 having a value in a calendar year of \$50,000.00 or more or a combination or series of such agreements or contracts having a value of \$100,000.00 or more, the Applicant expressly acknowledges receipt of State Election Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will cause the Applicant to inform its principals of the contents of the notice. This notice SEEC II is attached hereto as Exhibit C and made a part thereof.

6.1. <u>Insurance and Contractor Bonding.</u> All contractors engaged by the Applicants in connection with the Project shall maintain such insurance as the State deems appropriate. All such policies of insurance shall name the state as an additional insured or loss payee, as applicable. Contractors engaged by the Applicant for the Project shall also satisfy such bonding requirements as may be imposed by the Commissioner in his/her discretion.

PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

The Contractor shall, within ten (10) days from the date of the Notice of Award, furnish the City of Meriden with a <u>PERFORMANCE BOND and a LABOR AND MATERIAL PAYMENT BOND</u>, both in the amount of 100% of the amount bid, conditioned upon the performance of the Contractor on all undertaking, covenants, terms, and conditions and agreements of the contract. The bond shall be in the form of the specimen bonds annexed hereto, such bonds shall be executed by the contractor and a corporate bonding company licensed, authorized, and admitted to transact such business in the State of Connecticut and named on the current list of "Surety Companies acceptable on Federal Bonds", as published in the "Treasury Department" listed for an amount equal to the amount of the reinsurance. Written evidence of how any excess suretyship has been placed by the surety signing the bonds shall accompany the bonds. The expense of the bonds shall be borne by the Contractor. If at anytime a surety on any such bond is declared bankrupt or loses its right to do business in the State of Connecticut, or is removed from the list of Surety Companies acceptable on Federal Bonds, or for any other justifiable cause, the Contractor shall, within ten (10) days after notice from the City of Meriden to do so. substitute an acceptable bond(s) in such form and sum and signed by such other surety or sureties as may be paid by the Contractor. No payments shall be deemed due nor shall be made until the new surety or sureties have furnished an acceptable bond to the City.

If the Contractor is a partnership, the bonds shall be signed by each of the individuals who are partners; if a corporation, the bonds shall be signed in the correct corporation name by a duly authorized office, agent, or attorney-in-fact. There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the contract. Each executed bond shall be accompanied by 1) appropriate acknowledgements of the respective parties; 2) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer, or other representative of Contractor or surety; 3) a duly certified extract from by-laws or resolutions or surety under which Power of Attorney or other certificates of authority of its agent, officer, or representative was issued.

The Contractor hereby agrees and understands that a Notice of Award is expressly conditional upon the receipt of these bonds and a Certificate of Insurance naming the City of Meriden (and others as appropriate) as <u>ADDITIONAL INSURED</u>. If said documents are not received by the City of Meriden within ten (10) days from the date of Notice of Award, the City of Meriden reserves the right to withdraw its conditional acceptance of the bid and cancel the Notice of Award.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that

(here insert full name and address or legal title of Contractor)

as Principal herinafter called contractor and

(here insert full name and address or legal title of Surety

As Surety, hereinafter called Surety, are held and firmly bound unto

(here insert full name and address or legal title of Owner)

As Obligee, hereinafter called Owner, in the amount of

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated (here insert full name, address and description of project)

In accordance with Drawings and Specifications prepared by

(here insert full name and address or legal title of Engineer/Architect)

Which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

\$

20 , entered into a contract with Owner for

Dollars

PERFORMANCE BOND

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor, shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives, notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the surety may promptly remedy the default, or shall promptly

1) Complete the Contract in accordance with its terms and conditions, or

2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default of a succession of

defaults, under the contract or contracts of completion arranged under this paragraph sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

Signed and sealed this	day of		20
	_	(Principal)	
(Witness)	- 		
		(Title)	
	_	(Surety)	
(Witness)	-		
	_	(Title)	

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that

(here insert full name and address or legal title of Contractor)

as Principal, herinafter called Principal, and

(here insert full name and address or legal title of Surety

As Surety, hereinafter called Surety, are held and firmly bound unto

(here insert full name and address or legal title of Owner)

As Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the amount of Dollars \$_____

For the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated (here insert full name, address and description of project)

20 , entered into a contract with Owner for

In accordance with Drawings and Specifications prepared by

(here insert full name and address or legal title of Engineer/Architect) which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

LABOR AND MATERIAL PAYMENT BOND

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

a) Unless claimant, other than one having a direct contact with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelop addressed to the Principal Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project or any part thereof, is situated, or in the United States District Court for the district in which the Project, or any part thereof is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this

day of

20

(Principal)

(Title)

(Surety)

(Witness)

(Witness)

(Title)

BID FORM

B024-01 ARPA- Meriden Boys and Girls Club Renovations

		Date of Op At 11 AM	ening: February 29 <u>, 2024</u>
To: Rawle Dummett Purchasing Officer 142 East Main Street, Meriden, CT 06450	Room 210		
The undersigned		, doing business in the City	y/Town of
		, herewith, after reading thoroughly m or addenda) submit the following pro	
Lump sum price:			
Written Amount		Dollars & Cents	
Receipt of Addenda is ack			
No:	Dated:		
No:	Dated:		
NAME OF BIDDER			
ADDRESS			
BY: Print or type		Title	
SIGNATURE		DA	ATE

PLEASE NOTE: All spaces must be filled in with figures or words or your bid may be automatically rejected.

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

BOYS AND GIRLS CLUB OF MERIDEN Interior and Exterior Renovations / Alterations 15 Lincoln Street Meriden, Connecticut 06451 Project No. 23035 January 12, 2024

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REFER TO DRAWINGS FOR TECHNICAL SPECIFICATIONS

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SECTION 000115 - LIST OF DRAWING SHEETS

1.1 LIST OF DRAWINGS

A. Drawings: Drawings consist of the Contract Drawings and other drawings listed in the Drawing List of drawing page "INFO-1" of the separately bound drawing set titled "Boys and Girls Club of Meriden – Interior and Exterior Renovations/Alterations", dated the same as this Project Manual, as modified by subsequent Addenda and Contract modifications.

END OF DOCUMENT 000115

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY THIS PROJECT MANUAL

A. Work covered in this project manual consists of Interior and Exterior Renovations at the Boys and Girls Club of Meriden in Meriden, CT, including, but not limited to: Toilet Room renovations, Multi-Purpose Room renovations, Roof Replacement, and associated work as shown on drawings and specifications.

1.2 CONTRACT

- A. The Owner will receive bids for the complete project as called for on BID FORM and as shown on the contract documents. Contractor is required to break his bid down for the Owner's funding requirements.
- 1.3 CONTRACTOR USE OF PREMISES
 - A. The selected Contractor, upon award of Contract, shall have partial control of the site.
 - B. The Contractor shall conduct his operations under this Contract in such a manner as to allow, at all times during the performance of the work ingress and egress for the tenants and the public with the Owner's representative to coordinate his work to meet this condition.
 - C. The Contractor shall provide all necessary safety equipment, material, and personnel to protect the public walks, entrance to buildings and grounds within the work areas of this Contract in order that pedestrians, tenants and the public be protected at all times.
 - D. Contractor must preserve as much of existing parking as possible for tenant use during construction.
 - E. At the end of any work day, the Tenants must have safe and full access to their apartment.

1.4 SCHEDULING OF WORK

- A. The renovation work will be carried on while existing apartments are being occupied.
- B. The Contractor shall be given reasonable latitude in scheduling of the work. Housing Authority officials will cooperate mutually with the general contractor in adjusting to situations, which may arise during the construction. In no case will the existing buildings or any apartment unit be vacated.
- C. The Contractor shall give each Tenant seventy-two (72) hours advanced written notice prior to entering any apartment. The Contractor will distribute notices to tenants. The Housing Authority (Owner) will provide the Contractor with Savin Rock Communities letterhead on which to write notices to the Tenants. The Contractor is responsible for giving advance notice to the Owner if there is any change to an apartment's schedule for the new work.

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- D. The Contractor shall include any overtime work that may be required to perform work that can not be completed during regular working hours. If overtime work is required the contractor must pay the clerk of the works employed by the Owner, Savin Rock Communities, for all hours when overtime is in force. No overtime work can take place without the clerk of the works present.
- E. It is the intent of the Contractor to prosecute the work as rapidly as possible. The final construction schedule will be subject to the approval of the Owner and Architect.

1.5 TIME FOR COMPLETION

- A. It shall be understood and mutually agreed that the time for Substantial Completion is an essential condition of this Contract.
- B. Contractor agrees that work shall be prosecuted diligently and uninterruptedly at such rate as will insure Substantial Completion of all Work.
- C. It is expressly understood and agreed by Contractor and Owner that the time for Substantial Completion and Certificates of Occupancy are reasonable, taking into consideration average climatic range, Owner's restrictions, and other conditions prevailing.
- D. Contractor shall schedule the work accordingly.

1.6 EXISTING BUILDINGS

A. The Contractor shall protect and be responsible for the existing building, within the area of his operations under this Contract. Should any portion of the existing buildings or area be damaged, disturbed or otherwise affected due to the work of the Contract, the Contractor shall report the conditions and circumstances to the Inspector and shall make all necessary repairs and replacements to such damaged work at his own expense and with new materials to match the existing work in every respect, as approved by the Inspector. The Contractor shall replace or restore to their former condition as his own expense and to the satisfaction of the Inspector, all existing construction, finishes, and other improvements that are to remain and that have been damaged as a result of this operation.

1.7 DAMAGE

A. The Contractor shall be responsible for any damage or loss incurred as a result of the work of the contract to tenants' property or other work, and shall, at his own expense replace any material which in the opinion of the inspector has become damaged to such an extent that it cannot be restored to its original condition.

1.8 EXAMINATION OF SURFACES TO BE COVERED

- A. Prior to application of materials included in the various technical specifications sections, the Contractor shall examine the building and surfaces upon which materials are to be supplied.
- 1.9 FIRE SAFETY REQUIREMENTS

- A. The Contractor shall conform to the following mandatory requirements during the course of the work:
 - 1. All debris shall be removed from the site under a schedule approved by the Owner. The cost of all dumpsters and dumping fees is the responsibility of the Contractor.
 - 2. All combustible materials shall be stored outside the building.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION NOT USED

END OF SECTION 01 10 00

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
 - 1. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 2. Divisions 02 through 33 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.

- b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- e. Samples, where applicable or requested.
- f. Certificates and qualification data, where applicable or requested.
- g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
- h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
- j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Cost information, including a proposal of change, if any, in the Contract Sum.
- 1. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
- m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
 - i. If a comparable product or substitution is proposed, the Contractor shall be solely responsible for verifying that the substitution does not impact the structural design, HVAC, electrical, plumbing or utility requirements, clearances, dimensions or layouts, building or fire code requirements or any other change in the original design. If the substitution does require a change in any of the items noted above or similar design change or physical changes, the contractor shall be responsible for the cost of any redesign and for the additional construction costs associated with the changes due to the substitution.

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- Substitutions for Convenience: Architect will consider requests for substitution if received B. within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - Requested substitution offers Owner a substantial advantage in cost, time, energy a. conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - Requested substitution does not require extensive revisions to the Contract b. Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - Substitution request is fully documented and properly submitted. d.
 - Requested substitution will not adversely affect Contractor's construction schedule. e.
 - Requested substitution has received necessary approvals of authorities having f. jurisdiction.
 - Requested substitution is compatible with other portions of the Work. g.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - Requested substitution provides specified warranty. i.
 - If requested substitution involves more than one contractor, requested substitution j. has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
 - If a comparable product or substitution is proposed, the Contractor shall be k. solely responsible for verifying that the substitution does not impact the structural design, HVAC, electrical, plumbing or utility requirements, clearances, dimensions or layouts, building or fire code requirements or any other change in the original design. If the substitution does require a change in any of the items noted above or similar design change or physical changes, the contractor shall be responsible for the cost of any redesign and for the additional construction costs associated with the changes due to the substitution.
 - l. If a Contractor does propose a substitution for convenience within 60 days of notice to proceed, the Architect shall be compensated directly by the Contractor for the Architect's time reviewing such a request.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, within this specification.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 5 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and

finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
- C. Proposal Request Form: Recommended form is AIA Document G709 for Proposal Requests.

1.5 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701 (or similar format).

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714 (or similar format). Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

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SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Allowances" for procedural requirements governing handling and processing of allowances.
 - 2. Division 1 Section "Unit Prices" for administrative requirements governing use of unit prices.
 - 3. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 4. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - 2. Submit the Schedule of Values to Architect at earliest possible date but no later than fifteen (15) days before the date scheduled for submittal of initial Applications for Payment.

- 3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value.
 - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
 - 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.
 - 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 - 7. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 - 8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

- a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
- 9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The period covered by each Application for Payment starts on the first day of each calendar month and ends with the last day of the same month.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 5 signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: Commencing with the second Application for Payment, with each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment. Waivers shall indicate partial release of lien with respect to that period of time covered by the preceding Application for Payment.
 - 1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
 - 2. When an application shows completion of an item, submit final or full waivers.
 - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.

- 4. Waiver Delays: Submit each Application for Payment with Contractor's waiver of mechanic's lien for construction period covered by the application.
 - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
- 5. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of Values.
 - 3. Contractor's Construction Schedule (preliminary if not final).
 - 4. Products list.
 - 5. Schedule of unit prices.
 - 6. Submittals Schedule (preliminary if not final).
 - 7. List of Contractor's staff assignments.
 - 8. List of Contractor's principal consultants.
 - 9. Copies of building permits.
 - 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 11. Initial progress report.
 - 12. Report of preconstruction conference.
 - 13. Certificates of insurance and insurance policies.
 - 14. Performance and payment bonds.
 - 15. Data needed to acquire Owner's insurance.
 - 16. Initial settlement survey and damage report if required.
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."

- 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
- 6. AIA Document G707, "Consent of Surety to Final Payment."
- 7. Evidence that claims have been settled.
- 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
- 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination Drawings.
 - 2. Administrative and supervisory personnel.
 - 3. Project meetings.
 - 4. Requests for Interpretation (RFIs).
- B. Related Sections include the following:
 - 1. Division 1 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
 - 2. Division 1 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 1 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents.

1.4 COORDINATION

- A. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.

- 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
- 3. Make adequate provisions to accommodate items scheduled for later installation.
- 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Preparation of the Schedule of Values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1.5 SUBMITTALS

A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1.6 **PROJECT MEETINGS**

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Architect will inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.
 - 2. Agenda: Architect shall prepare the meeting agenda and distribute the agenda to all invited attendees.

- 3. Minutes: Architect shall record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Contractor, within three days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
 - 1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Preparation of Record Documents.
 - 1. Use of the premises.
 - m. Work restrictions.
 - n. Owner's occupancy requirements.
 - o. Responsibility for temporary facilities and controls.
 - p. Construction waste management and recycling.
 - q. Parking availability.
 - r. Office, work, and storage areas.
 - s. Equipment deliveries and priorities.
 - t. First aid.
 - u. Security.
 - v. Progress cleaning.
 - w. Working hours.
 - 3. Minutes: Architect will record and distribute meeting minutes.
- C. Progress Meetings: Conduct progress meetings at regular intervals not exceeding every week. Coordinate dates of meetings with preparation of payment requests.
 - 1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

- 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) RFIs.
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
- 3. Minutes: Architect will record and distribute the meeting minutes to the Project team.
- 4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
 - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

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1.7 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
 - 1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 - 1. Project name.
 - 2. Date.
 - 3. Name of Contractor.
 - 4. Name of Architect.
 - 5. RFI number, numbered sequentially.
 - 6. Specification Section number and title and related paragraphs, as appropriate.
 - 7. Drawing number and detail references, as appropriate.
 - 8. Field dimensions and conditions, as appropriate.
 - 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 10. Contractor's signature.
 - 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
 - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Hard-Copy RFIs: CSI Form 13.2A.
 - 1. Identify each page of attachments with the RFI number and sequential page number.
- D. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
 - 1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- E. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow five working days for Architect's response for each RFI. RFIs received after 3:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.

- c. Requests for coordination information already indicated in the Contract Documents.
- d. Requests for adjustments in the Contract Time or the Contract Sum.
- e. Requests for interpretation of Architect's actions on submittals.
- f. Incomplete RFIs or RFIs with numerous errors.
- 2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
- 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
- G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log at each progress meeting. Include the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect's response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Start-up construction schedule.
 - 2. Contractor's construction schedule.
 - 3. Daily construction reports.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.
- B. Related Sections:
 - 1. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
 - 2. Division 01 Section "Quality Control" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of the Project.

- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format
 - 1. Three paper copies.
- B. Start-up construction schedule.
 - 1. Approval of cost-loaded start-up construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- D. Daily Construction Reports: Submit at weekly intervals.
- E. Material Location Reports: Submit at weekly intervals.
- F. Field Condition Reports: Submit at time of discovery of differing conditions.
- G. Special Reports: Submit at time of unusual event.

1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

2.2 START-UP CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit start-up horizontal bar-chart-type construction schedule within seven days of date established for the Notice of Award.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 30 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within 7 days of date established for commencement of the Work. Base schedule on the start-up construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require two months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Start-up Network Diagram: Submit diagram within [14] <Insert number> days of date established for [commencement of the Work] [the Notice to Proceed] [the Notice of Award]. Outline significant construction activities for the first [90] <Insert number> days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a[cost- and resource-loaded,] time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than [60] <Insert number> days after date established for [commencement of the Work] [the Notice to Proceed] [the Notice of Award].
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
 - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 - 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 - 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to correlate with Contract Time.
- D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.

2.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. Equipment at Project site.
 - 5. Material deliveries.

- 6. High and low temperatures and general weather conditions, including presence of rain or snow.
- 7. Accidents.
- 8. Meetings and significant decisions.
- 9. Unusual events (refer to special reports).
- 10. Stoppages, delays, shortages, and losses.
- 11. Meter readings and similar recordings.
- 12. Emergency procedures.
- 13. Orders and requests of authorities having jurisdiction.
- 14. Change Orders received and implemented.
- 15. Construction Change Directives received and implemented.
- 16. Services connected and disconnected.
- 17. Equipment or system tests and startups.
- 18. Partial completions and occupancies.
- 19. Substantial Completions authorized.
- B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

- 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
- B. Distribution: Distribute copies of approved schedule to Architect, Owner's Representative, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections:
 - 1. Division 01 Section "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 3. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 4. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 5. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.
- C. Action Submittals: Written and graphic information and physical samples that require Architect's [and Construction Manager's] responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- D. Informational Submittals: Written and graphic information and physical samples that do not require Architect's [and Construction Manager's] responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- E. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- F. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.3 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and Construction Manager and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 15 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
 - 4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action, informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's and Construction Manager's final release or approval.
 - g. Scheduled dates for purchasing.
 - h. Scheduled dates for installation.
 - i. Activity or event number.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Architect can furnish Contractors access to the digital model of the Contract Drawings for use in preparing Shop Drawings, Coordination Drawings and Project record drawings.
 - 1. Upon issuance of a Notice to Proceed or similar authorization by the Owner, the Architect will transfer a copy of the current version of the digital model of the project to the Construction Manager's website for use by all trade contractors in preparing submittals and coordination drawings. The model was prepared using Revit 2013 software.
 - 2. All contractors using or accessing the digital Model shall first be required to execute a data licensing agreement in the form of AIA Document C106 Agreement form acceptable

to the Owner and Architect. A fee of \$5,000 will be requested to gain access to the digital model.

- 3. Over the course of the multi-year construction project, all contractors using or accessing the model shall be required to update their version of Revit to the latest available version of the software in general use at that time.
- 4. File Preparation Format: RVT operating in Microsoft Windows operating system.
- 5. File Submittal Format: Submit or post coordination drawing files using the same format as the file preparation or PDF format.
- 6. The Architect or his consultants make no representation as to the accuracy or completeness of the digital model as it relates to the drawings.
- 7. The Architect and his consultants shall be granted access to the coordination model on the Construction Manager's website for their use in conducting their construction administration responsibilities.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with the project phasing, fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - a. Transmit submittals only as required for the work of the current phase. Do not transmit submittals for work in subsequent phases prior to or concurrently with the submittals of the current phase. Submittals issued for work that is not in the current phase of construction will not be reviewed until all other submittals have been reviewed for the work in the current phase.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 - 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect and Construction Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the

Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

- 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
- 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
- 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- 4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
- 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal. Submittal will be returned to Construction Manager, through Architect, before being returned to Contractor.
- D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager.
 - 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of subcontractor.
 - g. Name of supplier.
 - h. Name of manufacturer.
 - i. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - 1. Location(s) where product is to be installed, as appropriate.
 - m. Other necessary identification.
- E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

- 1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
- 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
- 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect [and Construction Manager].
- 4. Include the following information on an inserted cover sheet:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Name of subcontractor.
 - h. Name of supplier.
 - i. Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - 1. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Other necessary identification.
- 5. Include the following information as keywords in the electronic file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- F. Options: Identify options requiring selection by the Architect.
- G. Deviations: Identify deviations from the Contract Documents on submittals.
- H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect or Construction Manager observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 - 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect and Construction Manager.
- I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect and Construction Manager will return submittals, without review, received from sources other than Contractor.

- 1. Transmittal Form: Use CSI Form 12.1A.
- 2. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Specification Section number and title.
 - i. Indication of full or partial submittal.
 - j. Drawing number and detail references, as appropriate.
 - k. Transmittal number [numbered consecutively].
 - 1. Submittal and transmittal distribution record.
 - m. Remarks.
 - n. Signature of transmitter.
- 3. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's and Construction Manager's action stamp.
- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's and Construction Manager's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

- 1. Post electronic submittals as PDF electronic files directly to Construction Manager's FTP site specifically established for Project.
 - a. Architect, through Construction Manager, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
- 2. Action Submittals: Submit two paper copies of each submittal, unless otherwise indicated. Architect, will not return paper copies.
- 3. Informational Submittals: Submit two paper copies of each submittal, unless otherwise indicated. Architect and Construction Manager will not return copies.
- 4. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
- 5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- 6. Test and Inspection Reports Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

- 5. Submit Product Data before or concurrent with Samples.
- 6. Submit Product Data in the following format:
 - a. PDF electronic file.
 - b. Two paper copies of Product Data, unless otherwise indicated. Architect will not return paper copies.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based upon Architect's digital data drawing files is otherwise permitted.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches.
 - 3. Submit Shop Drawings in the following format:
 - a. Two opaque copies of each submittal. Architect will not return paper copies.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - 3. Disposition: Maintain sets of approved Samples at Project site, available for qualitycontrol comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.

- b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager, will return one submittal with options selected.
- 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect and Construction Manager will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project record sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - 1. Type of product. Include unique identifier for each product [indicated in the Contract Documents].
 - 2. Manufacturer and product name, and model number if applicable.
 - 3. Number and name of room or space.
 - 4. Location within room or space.
 - 5. Submit product schedule in the following format:
 - a. Two paper copies of product schedule or list, unless otherwise indicated. Architect will not return paper copies.
- F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."

- G. Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H. Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A.
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
 - 4. Submit subcontract list in the following format:
 - a. Number of Copies: Three paper copies of subcontractor list, unless otherwise indicated. Architect, through Construction Manager, will return two copies.
- J. Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- K. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- L. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- M. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- N. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- O. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- P. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- Q. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

- R. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- S. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- T. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- Y. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

- 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally-signed PDF electronic file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Architect and Construction Manager will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect and Construction Manager will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Architect and Construction Manager will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect and Construction Manager will forward each submittal to appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect and Construction Manager.

- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION

SECTION 014000 – QUALITY REQUIREMENTS

PART 1 - GENERAL

- 1.01 REQUIREMENTS INCLUDED
- A. General Quality Control.
- B. Workmanship.
- C. Mockups
- D. Manufacturers' Instructions.
- E. Manufacturers' Certificates.
- F. Testing Laboratory Services.
- 1.02 QUALITY CONTROL GENERAL
- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Submit to the owner safety data sheets for all materials delivered to the site.
- 1.03 WORKMANSHIP
- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Employ persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- 1.04 MOCKUPS
 - A. Mockups: Before installing portions of the Work, build mockups for each item listed below and for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - Build mockups of the following prior to proceeding with any further work:
 a. Not applicable.
 - 2. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 - 3. Notify Architect seven days in advance of dates and times when mockups will be constructed.

- 4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
- 5. Demonstrate the proposed range of aesthetic effects and workmanship.
- 6. Obtain Architect's approval of mockups before starting work, fabrication, or final construction.
 - a. Allow two days for initial review and each re-review of each mockup.
- 7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- 8. Mockups can become part of the completed work.

1.05 MANUFACTURERS' INSTRUCTIONS

- A. When required by individual specification sections, submit manufacturer's printed instructions in the number of copies the Contractor requires plus three (3) which will be retained by Architect.
- B. Comply with instructions in full detail and include each step in sequence. Should instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- 1.06 MANUFACTURERS' CERTIFICATES
- A. When required by individual Specification Sections, submit manufacturers' certificate, in duplicate, that products meet or exceed specified requirements.
- 1.07 TESTING LABORATORY SERVICES
- A. Employ and pay for services of an independent testing laboratory to perform inspections and tests, when so specified in individual Specification Sections.
- B. Services shall be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports shall be submitted to Architect giving observations and results of tests, indicating compliance or non-compliance with specified standards and with Contract Documents.
- D. Contractor shall cooperate with testing laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage, and assistance as requested.
 - 1. Notify Architect and testing laboratory 24 hours prior to expected time for operations requiring testing services.
 - 2. Make arrangements with testing laboratory and pay for additional samples and tests ordered for Contractor's convenience.
- E. When reports indicate non-compliance, take appropriate corrective measures and request for inspection or retesting. The costs of corrective work, reinspections, and retesting shall be paid by the Contractor at no extra cost to the Owner.

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PART 2 - PRODUCTS PART 3 - EXECUTION Not used Not used

END OF SECTION 01 40 00

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 GENERAL

- A. Specific administrative and procedural minimum actions are specified in the section, as extensions of provisions in General Conditions and other contract documents. These requirements have been included for special purposes as indicated. Nothing in this section is intended to limit types and amounts of temporary work required, and no omission from this section will be recognized by an indication by the Architect or Owner that such temporary activity is not required for successful completion of the work and the compliance with requirements of contract documents. Provisions of this section are applicable to, but not by way of limitation, utility services, construction facilities, security/protection provisions and support facilities.
- B. All work and procedures: Conform to NFPA 241-1986, Safeguarding Construction, Alteration, and Demolition Operation Operations.
- 1.02 LIFTING DEVICES AND HOISTING FACILITIES
- A. Provide cranes, hoists, and other lifting devices necessary for proper and efficient movement of materials. Provide operating personnel required for equipment. Provide with proper guys, bracing, and other safety devices required by local and State Codes.
- B. Remove hoisting equipment when no longer needed.
- 1.03 TEMPORARY LADDERS, RAMPS, RUNWAYS
- A. Furnish and maintain such equipment as temporary ladders, ramps, scaffolds, runways, chutes, and the like required for proper execution of work by all trades.
- B. Construct and maintain such apparatus, equipment in accordance with labor laws and other applicable state and local codes and regulations.
- 1.04 CONSTRUCTION SHEDS/STORGE SHEDS
- A. Locate and place construction sheds/storage sheds on property as directed by the Owner. Remove from site at end of project.
- 1.05 STORAGE OF MATERIALS
- A. Delivery and storage materials for buildings shall be under direct control of the Contractor. Stack, store, or otherwise dispose of on premises when, where, and as directed.
- B. Store and keep protected in a dry and weatherproof enclosure materials which are subject to deterioration by exposure to moisture and the elements.

1.06 TEMPORARY FACILITIES

A. General Contractor to provide temporary field office of sufficient size to accommodate the needs of the Owner, Architect and the construction personnel office activities and to accommodate project meetings. Provide prefabricated or mobile units with serviceable finishes, temperature controls and foundations adequate for normal loading.

1.07 SANITARY FACILITIES

A. Temporary toilet facilities shall be provided by the General Contractor at the site to be used by the General Contractor and sub-contractor's construction personnel. Coordinate locations for temporary toilet facilities with Owner prior to mobilization.

1.08 TEMPORARY WATER

A. The General Contractor shall be responsible for supplying water required for construction activities and for clean up activities. Water shall be provided in tanks or other similar means. The contractor will not be allowed to connect to the tenant's water supply.

1.09 TEMPORARY ELECTRIC

- A. The General Contractor shall be responsible for supplying power required for construction activities. Power shall be provided by generators or temporary utility service. The contractor will not be allowed to connect to the tenant's electrical service.
- B. If required, provide all necessary wiring and lamps required for temporary lighting for all trades and for the operation of all the electrical machines.
- C. All temporary wiring shall be done in strict accordance with the regulations of the electric company.

1.10 WEATHER CONDITIONS

A. In event of temporary suspension of work, or during inclement weather, or whenever further directed by Architect, work and material will be carefully protected against elements. All work of any kind found to be damaged by elements shall be removed and replaced without cost to Owner.

1.10 PROJECT SIGN

- A. Furnish and erect a project sign of MDO plywood, secured to posts set in ground and securely braced at the project site as directed by the Owner.
- B. The sign shall be constructed, painted, and lettered in accordance with Project Sign Drawing details.

Submit layout drawing for approval by Owner prior to fabrication.

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C. No other construction signs will be allowed on the site without specific authorization from the Owner and the Architect.

END OF SECTION 01 50 00

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for submitting warranties for Contract closeout.
 - 2. Divisions 2 through 32 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular from, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
 - 1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 - 2. Completed List: Within 30 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - 3. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

- h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
- i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
- j. Cost information, including a proposal of change, if any, in the Contract Sum.
- k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
- 1. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Acceptance: Change Order.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Division 1 Section "Submittal Procedures."
 - b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

- 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
- 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Store cementitious products and materials on elevated platforms.
 - 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 7. Protect stored products from damage and liquids from freezing.
 - 8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 **PRODUCT WARRANTIES**

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 - 3. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 - 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 - 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
 - 1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.

- 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
- 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
- 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
- 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
- 6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
- 7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
- 8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.
- 9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
- 10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within 60 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Architect.
- B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - 2. Requested substitution does not require extensive revisions to the Contract Documents.
 - 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 4. Substitution request is fully documented and properly submitted.
 - 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 - 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 7. Requested substitution is compatible with other portions of the Work.
 - 8. Requested substitution has been coordinated with other portions of the Work.
 - 9. Requested substitution provides specified warranty.
 - 10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 3. Evidence that proposed product provides specified warranty.
 - 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 - 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. General installation of products.
 - 2. Coordination of Owner-installed products.
 - 3. Progress cleaning.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 1 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 - 2. Division 1 Section "Submittal Procedures" for submitting surveys.
 - 3. Division 1 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
 - 4. Division 1 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

- 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
- 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet (2.4 m) in spaces without a suspended ceiling.

- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.

3.5 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 01 73 29 - CUTTING AND PATCHING

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. Cutting and patching includes cutting into previously built construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.
 - 1. Cutting and patching is performed for coordination of the work, to uncover work for access or inspection, to obtain samples for testing, to permit alterations to be performed, or for other similar purposes.
 - 2. Cutting and patching performed during the manufacture of products, or during the initial fabrications, erection, or installation processes is not considered to be cutting and patching under this definition. Drilling of holes to install fasteners and similar operations are also not considered to be cutting and patching.
- B. Refer to other sections of the specifications for specific cutting and patching requirements and limitations applicable to individual units of work.
- 1.02 QUALITY ASSURANCE
- A. Do not cut and patch structural work in a manner that would result in a reduction of load carrying capacity or of load-deflection ratio.
- B. Do not cut and patch operational elements or safety related components in a manner that would result in a reduction of their capacity to perform in a manner intended, including energy performance, or that would result in increased maintenance, decreased operational life, or decreased safety.
- C. Do not cut and patch work exposed on the building's exterior or in it's occupied spaces in a manner that would, in the architect's opinion, result in lessening the building's aesthetic qualities. Do not cut and patch work in a manner that would result in substantial visual evidence of cut and patch work. Remove and replace work judged by the architect to be cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Except as otherwise indicated, or as directed by the architect, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal or better performance characteristics.

PART 3 - EXECUTION

3.01 INSPECTION

A. Before cutting, examine the surfaces to be cut and patched and the conditions under which the work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the work.

3.02 PREPARATION

- A. To prevent failure provide temporary support of work to be cut.
- B. Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of the project that may be exposed during cutting and patching operations.
- C. Take precautions not to cut pipe, conduit, or duct that are in use until provisions have been made to bypass them.

3.03 PERFORMANCE

- A. Employ skilled workmen to perform cutting and patching work. Except as otherwise indicated or as approved by the Architect, proceed with cutting and patching at the earliest feasible time and complete work without delay.
- B. Cut the work using methods that are least likely to damage work to be retained or adjoining work. Where possible review proposed procedures with the original installer; comply with original installer's recommendations.
 - 1. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering or chopping. Cut through concrete and masonry using a cutting machine such as a carborundum saw or core drill to insure a neat hole. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.
 - 2. If required, by-pass utility services such as pipe and conduit, before cutting, where such utility services are required to be relocated. After by-pass and cutting, cap, valve or plug and seal tight remaining portion of pipe and conduit to prevent entrance of moisture or other foreign matter.
- C. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of work.
 - 2. Restore exposed finishes of patched areas and where necessary extend finish restoration into adjoining work in a manner which will eliminate evidence of patching and

refinishing. Where patch occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing patch, after patched area has received prime and base coat.

D. If applicable, where cutting is required of asbestos containing materials that are not scheduled to be abated, the contractor shall take precaution and follow strict requirements outlined in the asbestos abatement specifications. Where required to remove items attached to asbestos containing materials that are not scheduled to be abated, the contractor shall carefully remove such items using methods to minimize disturbance to existing materials to remain. Items to be removed shall be carefully unscrewed / unfastened, etc.

3.04 CLEANING

A. Thoroughly clean areas and spaces where work is performed or used as access to work. Remove completely all paint, mortar, oils, putty, and items of similar nature. Thoroughly clean items and similar features before painting or other finishing is applied. Restore damaged covering to its original condition.

END OF SECTION 01 73 29

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Special Conditions and other Division
 1 specification sections, apply to work of this section.
- 1.02 DESCRIPTION OF REQUIREMENTS
- A. Closeout is hereby defined to include general requirements near the end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, and similar actions evidencing completion of the work.
- 1.03 INSPECTIONS
- A. It is the Contractor's responsibility to complete the project in accordance with the Contract Documents and to enforce their requirements on his employees, suppliers and subcontractors.

1.04 FINAL INSPECTION

- A. Upon completion of all items, upon written notice from the Contractor certifying that the work is complete, the Architect will, within seven days, make the final inspection.
- B. Should Architect consider that work is finally complete in accordance with requirements of Contract Documents, he shall request contractor to submit project closeout documents not previously received and approved.
- C. Should Architect consider that work is not finally completed, he shall notify the Contractor, in writing, stating reasons. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to Architect certifying that work is complete. Architect will re-inspect work.
- D. The "punch list" inspection will not be made until two (2) sets of project record documents; test reports and operation and maintenance manuals have been delivered to the Architect and found by him to be substantially complete.

1.05 PREREQUISITES TO FINAL ACCEPTANCE

- A. Prior to requesting Architect's final inspection for certification of final acceptance and final payment, as required by the General Conditions, complete the following list known exceptions (if any) in request:
 - 1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - 2. Submit all technical closeout documents including but not limited to the following:

- a. Material and workmanship warranties.
- b. Project Record Documents.
- c. Operation and Maintenance Manuals.
- d. Certificate of Occupancy / Building Department Approvals
- 3. Submit updated final statement, accounting for additional (final) changes to contract sum.

PART 2 - PRODUCTS	NOT USED
PART 3 - EXECUTION	NOT USED

END OF SECTION 01 77 00

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation manuals for systems, subsystems, and equipment.
 - 2. Maintenance manuals for the care and maintenance of systems and equipment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 2. Division 1 Section "Closeout Procedures" for submitting operation and maintenance manuals.
 - 3. Division 1 Section "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
 - 4. Divisions 2 through 16 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 SUBMITTALS

- A. Final Submittal: Submit one of each manual in final form at least 15 days before final inspection. Architect will return copy with comments within 15 days after final inspection.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies of each corrected manual within 15 days of receipt of Architect's comments.

1.5 COORDINATION

A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
 - 1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-

reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.

- b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
- 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
- 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
- 4. Supplementary Text: Prepared on 8-1/2-by-11-inch (215-by-280-mm) white bond paper.
- 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.2 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions.
 - 2. Operating standards.
 - 3. Operating procedures.
 - 4. Operating logs.
 - 5. Wiring diagrams.
 - 6. Control diagrams.
 - 7. Piped system diagrams.
 - 8. Precautions against improper use.
 - 9. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.

- C. Operating Procedures: Include the following, as applicable:
 - 1. Startup procedures.
 - 2. Equipment or system break-in procedures.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Normal shutdown instructions.
 - 7. Seasonal and weekend operating instructions.
 - 8. Required sequences for electric or electronic systems.
 - 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.3 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training videotape, if available.

- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- B. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- C. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and

flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.

- 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
- 2. Comply with requirements of newly prepared Record Drawings in Division 1 Section "Project Record Documents."
- D. Comply with Division 1 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. Related Sections include the following:
 - 1. Division 1 Section "Closeout Procedures" for general closeout procedures.
 - 2. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Divisions 2 through 16 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit two set(s) of marked-up Record Prints.
- B. Record Specifications: Submit two copies of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit two copies of each Product Data submittal.
 - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings on site.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - 1. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

- 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
- 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 - 5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of a building or structure.
 - 2. Repair procedures for selective demolition operations.
- B. Related Sections include the following:
 - 1. Division 1 Section "Cutting and Patching" for cutting and patching procedures for selective demolition operations.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.
- B. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property.

Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 SUBMITTALS

- A. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- B. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.

1.7 **PROJECT CONDITIONS**

- A. Tenants will occupy portions of building immediately adjacent to selective demolition areas. Conduct selective demolition so Tenants will not be disrupted. Provide not less than 72 hours' notice to Owner of activities that will create excessive disturbance to the Tenants.
- B. Maintain access to existing walkways, doorways, and other adjacent occupied or used facilities.
 - 1. Do not close or obstruct walkways, doorways, or other occupied or used facilities without written permission from authorities having jurisdiction and the Owner.
- C. Owner assumes no responsibility for condition of areas to be selectively demolished.
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Storage or sale of removed items or materials on-site will not be permitted.
- E. Hazardous Materials: Hazardous materials, if present shall be the responsibility of the building owner. Do not disturb hazardous materials or items suspected of containing hazardous materials. The Contractor shall contact the Owner immediately upon discovery of suspect material.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1.8 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
 - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installation requirements specified in individual Specification Sections.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to the Architect.
- E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES

A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.

- B. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by the Owner. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.
 - 1. Provide at least 72 hours' notice to the Owner if shutdown of service is required.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from the Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
 - 2. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 3. Protect existing site improvements, appurtenances, and landscaping to remain.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to existing areas to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Protect walls and other existing finish work that are to remain or that are exposed during selective demolition operations.

3.4 POLLUTION CONTROLS

- A. Dust Control: Limit the spread of dust and dirt. Comply with governing environmentalprotection regulations.
 - 1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding and pollution.
- B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- C. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.5 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows.
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above before disturbing the next lower areas below.
 - 2. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 4. Dispose of demolished items and materials promptly.
 - 5. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.
- B. Existing Facilities: Protect existing, stairs, walkways, building entries, and other building facilities during selective demolition operations.
- C. Removed and Reinstalled Items: Comply with the following:
 - 1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
 - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 - 3. Protect items from damage during transport and storage.
 - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Owner, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.6 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Patching: Comply with Division 1 Section "Cutting and Patching."
- C. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
 - 1. Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to manufacturer's written recommendations.
- D. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.
- 3.8 SELECTIVE DEMOLITION SCHEDULE
 - A. Scope of Selective Demolition is indicated on the Drawings.

END OF SECTION 02 41 19

SECTION 075323 - ETHYLENE PROPYLENE DIENE MONOMER (EPDM) MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Adhered EPDM membrane roofing system.

1.2 REFERENCES

- A. Roofing Terminology: Refer to the following publications for definitions of roofing work related terms used in this Section:
 - 1. ASTM D 1079 "Standard Terminology Relating to Roofing and Waterproofing."
 - 2. Glossary of NRCA's "The NRCA Roofing and Waterproofing Manual."
 - 3. Roof Consultants Institute "Glossary of Roofing Terms."
- B. Sheet Metal Terminology and Techniques: SMACNA "Architectural Sheet Metal Manual."

1.3 DESIGN CRITERIA

- A. General: Installed roofing membrane systems shall remain watertight; and resist specified wind uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material Compatibility: Roofing materials shall be compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.
- C. Installer shall comply with current code requirements based on authority having jurisdiction.
- D. Wind Uplift Performance: Roofing system shall meet the intent of systems that have been successfully tested by a qualified testing and inspecting agency to resist wind uplift pressure calculated in accordance with ASCE 7.
- E. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 - 1. Exterior Fire-Test Exposure: Class A; UL 790, for application and roof slopes indicated.

1.4 SUBMITTALS

- A. Product Data: Manufacturer's data sheets for each product to be provided.
- B. Detail Drawings: Provide roofing system plans, elevations, sections, details, and details of attachment to other Work, including:
 - 1. Base flashings, cants, and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Crickets, saddles, and tapered edge strips, including slopes.
 - 4. Insulation fastening patterns.
- C. Installer Certificates: confirmation that installer is approved, authorized, or licensed by manufacture to install roofing system.
- D. Maintenance Data: Refer to Johns Manville's latest published documents on www.JM.com.
- E. Guarantees: Provide manufacturer's current guarantee specimen.
- F. Roofing sub-contractor shall provide a copy of the final System Assembly Letter issued by Johns Manville Roofing Systems indicating that the products and system to be installed shall be eligible to receive the specified manufacturer's guarantee when installed by a certified JM contractor in accordance with our application requirements, inspected and approved by a JM Technical Representative.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product who is eligible to receive the specified manufacturer's guarantee.
- B. Manufacturer Qualifications: Qualified domestic U.S. owned and based manufacturer that has UL listing or accredited testing agency listing for roofing system identical to that used for this Project.
- C. Source Limitations: Obtain all components from the single source roofing system manufacturer guaranteeing the roofing system. All products used in the system shall be labeled by the single source roofing system manufacturer issuing the guarantee.
- D. Fire-Test-Response Characteristics: Roofing materials shall comply with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.7 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when current and forecasted weather conditions permit roofing system to be installed in accordance with manufacturer's written instructions and guarantee requirements.

1.8 GUARANTEES

- A. Provide manufacturer's system guarantee equal to Johns Manville's Peak Advantage No Dollar Limit Roofing System Guarantee.
 - 1. Single-source special guarantee includes roofing membrane, base flashings, roofing membrane accessories, roof insulation, fasteners, adhesives, manufacturer's edge metal products, and other approved single-source components of roofing system marketed by the manufacturer.
 - 2. Guarantee Period: 20 years from date of Substantial Completion.
- B. Installer's Guarantee: Submit roofing Installer's guarantee, including all components of roofing system for the following guarantee period:
 - 1. Guarantee Period: Two years from date of Substantial Completion.
- C. Existing Guarantees: Guarantees on existing building elements should not be affected by scope of work.
 - 1. Installer is responsible for coordinating with building owner's representative to verify compliance.

PART 2 - PRODUCTS

2.1 ETHYLENE PROPYLENE DIENE MONOMER ROOFING MEMBRANE - EPDM

- A. Non-reinforced uniform, flexible sheet made from Ethylene Propylene Diene Monomer, ASTM D 4637, Type II. Basis of design: JM EPDM R
 - 1. Thickness (minimum): 60 mils (1.5 mm)
 - 2. Exposed Face Color: Black.

2.2 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
 - 1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's internally reinforced or scrim reinforced. Basis of design: JM EPDM Peel & Stick Flashing
- C. Primer Material: Manufacturer's standard synthetic-rubber polymer primer. Basis of design: JM EPDM Tape Primer Plus (Low VOC)
- D. Seaming Material: Manufacturer's standard 3-inch- (75-mm-) wide minimum, butyl splice tape with release film. Basis of design: JM EPDM Seam Tape Plus
- E. Sealing Strip: Manufacturer's standard 6-inch- (150-mm-) wide, 45 mil (1.14 mm) thick minimum, cured EPDM with factory-laminated, self-adhering seam tape. Basis of design: JM EPDM Peel & Stick Sealing Strip
- F. Bonding Adhesive: Manufacturer's standard solvent-based bonding adhesive for membrane. Basis of design: JM LVOC Membrane Adhesive
 - 1. Serviceable Installation Ambient Air Temperature: 25°F and rising
- G. Flashing Adhesive: Manufacturer's standard solvent-based bonding adhesive for base flashings. Basis of design: JM LVOC Membrane Adhesive
 - 1. Serviceable Installation Ambient Air Temperature: 25°F and rising
- H. Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, with anchors. Basis of design: JM Termination Systems
- I. Membrane Battens: Manufacturer's standard polymer or aluminum-zinc-alloy-coated steel sheet, pre-punched. Basis of design: Membrane Battens

- J. Fasteners: Factory-coated steel fasteners and metal plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer. Basis of design: High Load Fasteners and Plates
- K. Miscellaneous Accessories: Provide all accessories to meet the roofing manufacturer's guarantee requirements.

2.3 WALKWAYS

A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads sourced from membrane roofing system manufacturer. Basis of design: JM EPDM Peel & Stick Walkpads

2.4 ROOF INSULATION

- A. General: Preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
 - 1. **AT SLOPED AREA**: Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2 (20 psi), Basis of design: ENRGY 3. Provide insulation package with minimum R Value: 30
 - 2. **AT FLAT AREA**: Tapered Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2 (20 psi), Basis of design: ENRGY 3 Tapered. Provide insulation package with minimum R Value: 30

COVER BOARD AT BOTH AREA'S - ¹/₂" ProtectoR HD: ASTM C 1289, Type II, Class 4, Grade 1.

2.5 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
- B. Provide saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain.
- C. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosionresistance provisions in FMG 4470, designed for fastening roof insulation to substrate, and furnished by roofing system manufacturer. Basis of design: UltraFast Fasteners and UltraFast Plates
- D. Wood Nailer Strips: Comply with requirements in Division 06 Section "Miscellaneous Rough Carpentry."

2.6 EDGE METAL COMPONENTS

- A. Fascia System: Manufacturer's factory fabricated fascia consisting of a base piece and a snapon cover. Provide product manufactured and marketed by single-source membrane supplier that is included in the No Dollar Limit guarantee. Basis of design: Presto-Tite Fascia (Single Ply Systems)
- B. Metal/Membrane Flashing: Specially designed and manufactured flashing for sealing and waterproofing. JM EPDM Metal/Membrane Flashing

PART 3 - EXECUTION

3.1 EXAMINATION

- 1. General:
 - a. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
 - b. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- 2. Steel Decks:
 - a. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 05 Section "Steel Decking."
 - b. Verify that decking is visibly dry and free of moisture.
 - c. Verify that the decking is smooth and free of large cracks, holes or sharp changes in elevation of the surface.
 - d. When applicable perform pull test with the specific fastener being used on the project to confirm the fastener resistance meets the requirements for that particular system.

3.2 PREPARATION

- A. Clean and remove from substrate sharp projections, dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.
- C. Proceed with each step of installation only after unsatisfactory conditions have been corrected.

3.3 RE-ROOF PREPARATION

- A. Remove all roofing membrane, surfacing, coverboards, insulation, fasteners, asphalt, pitch, adhesives, etc.
 - 1. Remove an area no larger than can be re-roofed in one day.
- B. Tear out all base flashings, counterflashings, pitch pans, pipe flashings, vents, sumps and like components necessary for application of new membrane.
- C. Remove abandoned equipment curbs, skylights, smoke hatches, and penetrations.
 - 1. Install decking to match existing as directed by Owner's Representative.
- D. Raise (disconnect by licensed craftsmen, if necessary) all HVAC units and other equipment supported by curbs to conform with the following:
 - 1. Modify curbs as required to provide a minimum 8" base flashing height measured from the surface of the new membrane to the top of the flashing membrane.
 - 2. Secure of flashing and install new metal counterflashing prior to re-installation of unit.
 - 3. Perimeter nailers shall be elevated to match elevation of new roof insulation.
- E. Immediately remove all debris from roof surface. Demolished roof system may not be stored on the roof surface.

3.4 INSULATION INSTALLATION

- A. Coordinate installation of roof system components so insulation and cover board are not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system manufacturer's written instructions for installation of roof insulation and cover board.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation boards with long joints in a continuous straight line. Joints should be staggered between rows, abutting edges and ends per manufacturer's written instructions. Fill gaps exceeding 1/4 inch (6 mm) with like material.
- E. Install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
- F. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- G. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

- H. Loose Laid Insulation with Cover Board Mechanically Fastened: Loose lay insulation with staggered joints and secure top layer of insulation to deck using mechanical fasteners designed and sized for fastening specified board-type to deck type.
 - 1. Fasten top layer to resist uplift pressure at corners, perimeter, and field of roof.

3.5 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install roofing membrane in accordance with roofing system manufacturer's written instructions, applicable recommendations of the roofing manufacturer and requirements in this Section.
- B. Coordinate installing roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is imminent.
 - 1. Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation.
 - 2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
 - 3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.6 ADHERED ROOFING MEMBRANE INSTALLATION

- A. Install roofing membrane over area to receive roofing in accordance with membrane roofing system manufacturer's written instructions.
 - 1. Unroll roofing membrane and allow to relax before installing.
- B. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- C. Bonding Adhesive: Apply solvent-based bonding adhesive to substrate and underside of roofing membrane at rate required by manufacturer and allow to partially dry before installing roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- D. Mechanically fasten roofing membrane securely at terminations, penetrations, and perimeter of roofing.
- E. Apply roofing membrane with side laps shingled with slope of roof deck where possible.
- F. Field Fabricated Seam Installation: Clean and prime both faces of splice areas, apply splice tape, and firmly roll side and end laps of overlapping roofing membranes according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of roofing membrane terminations.
- G. Tape to Tape Installation: Align membrane for appropriate overlap, remove release liners and firmly roll side and end laps of overlapping roofing membranes according to manufacturer's written instructions to ensure a watertight seam installation.

- H. Tape to Standard Sheet Installation: Align membrane for appropriate overlap, clean and prime non-taped face of splice area, remove release liners and firmly roll side and end laps of overlapping roofing membranes according to manufacturer's written instructions to ensure a watertight seam installation.
- I. Spread sealant or mastic bead over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.

3.7 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates in accordance with membrane roofing system manufacturer's written instructions.
- B. Apply single ply liquid applied flashing system per manufacturer's written instructions.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas and overlap and firmly roll sheet flashings into the adhesive.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.8 EDGE METAL INSTALLATION

- A. Examine substrates and conditions under which sheet metal flashing and trim are to be installed and verify that Work may properly commence. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Provide edge details as indicated on the Drawings. Install in accordance with the membrane manufacturer's requirements and SMACNA's "Architectural Sheet Metal Manual."
- C. Join individual sections in accordance with the membrane manufacturer's requirements and SMACNA's "Architectural Sheet Metal Manual."

3.9 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.
- B. Roof-Paver Walkways: Install walkway roof pavers with applicable slip sheet according to manufacturer's written instructions in locations indicated, to form walkways. Leave 3 inches (75 mm) of space between adjacent roof pavers.

3.10 FIELD QUALITY CONTROL

- A. Owner or designated representative will provide on-site observation and inspection during installation.
- B. Owner will engage a qualified testing agency to perform tests and inspections.
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical representative to inspect roofing installation on completion and submit report to Architect.
- D. Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with specified requirements.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.11 PROTECTION AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075323

OF MERIDEN INTERIOR AND EXTERIOR

BOYS AND GIRLS CLUB RENOVATIONS / ALTERATIONS

15 LINCOLN STREET, MERIDEN, CONNECTICUT 06451



KEVIN SCARPATI - MAYOR

JANUARY 12, 2024



271 Fairfield Avenue Bridgeport, Connecticut 06604

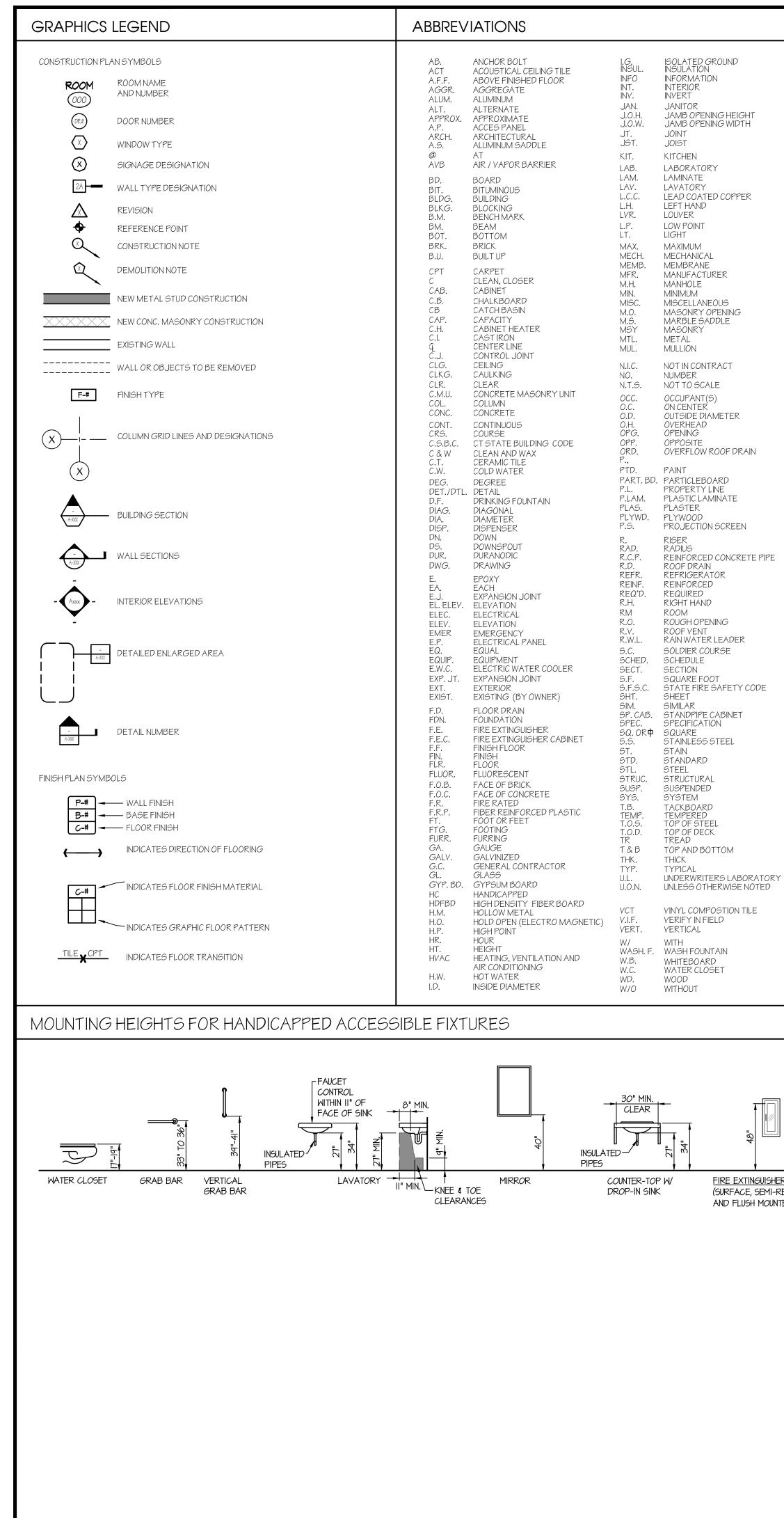
GENERAL DRAFTING & DESIGN, INC.

140 WASHINGTON AVENUE NORTH HAVEN, CONNECTICUT 06473 Phone: (203) 239-6818

TEL (203) 377-1300 FAX (203) 378-3002

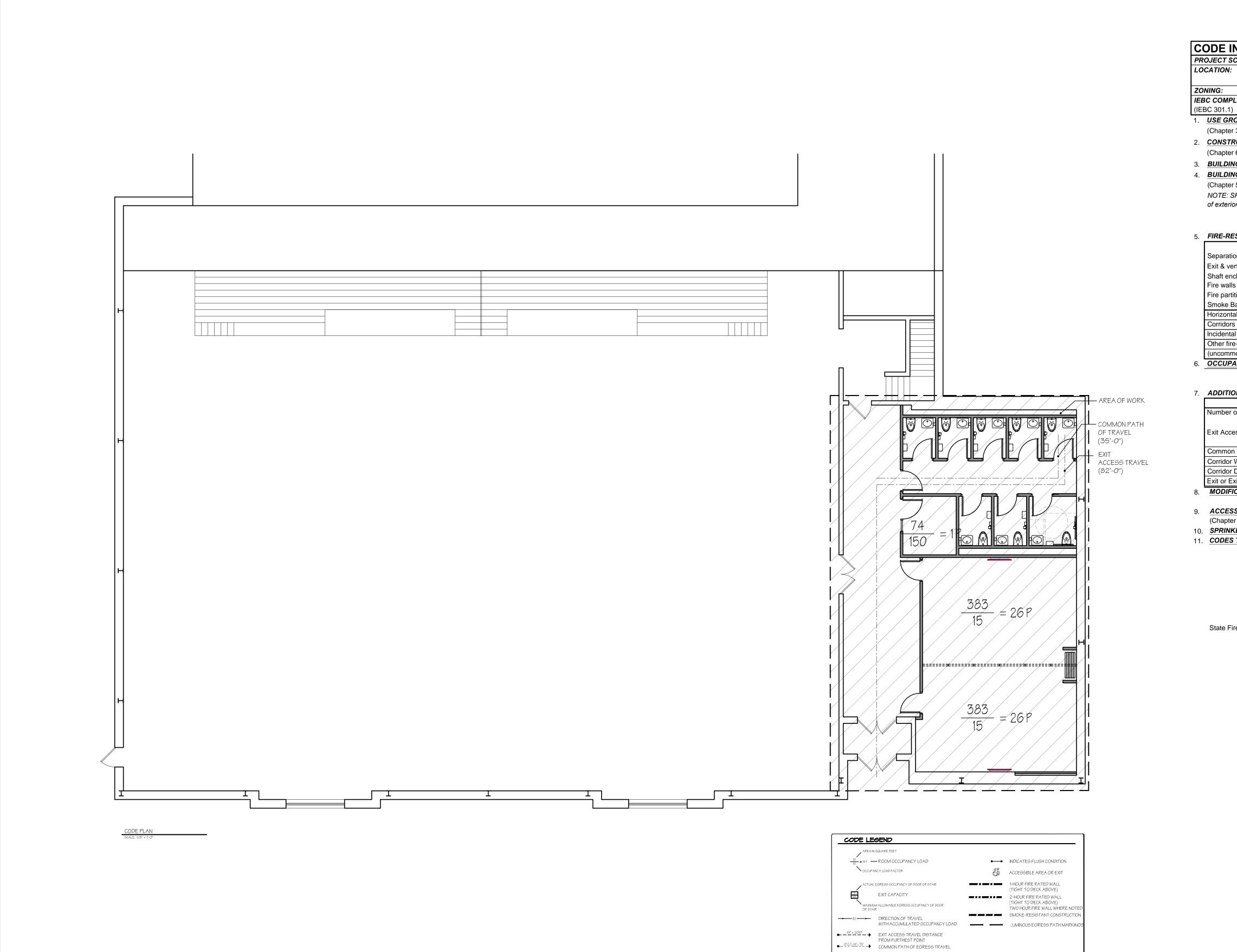
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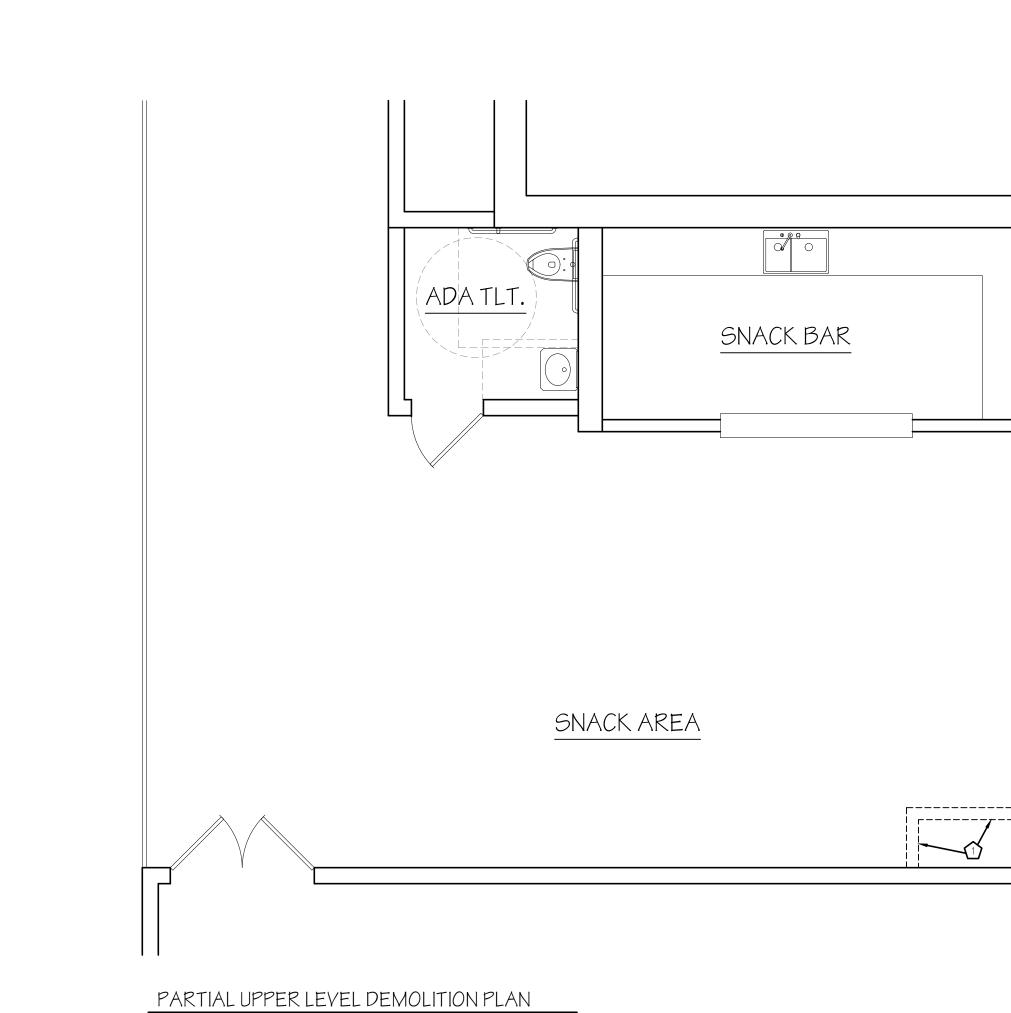


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	FI-901 FINISH LEGEND AND DETAILS MECHANICAL: M-1 MECHANICAL SPECIFICATIONS P-1 FLOOR PLANS- PLUMBING REMOVALS & HOT AND COLD WATER PIPING P-2 FLOOR PLAN - PLUMBING - SOIL, WASTE AND VENT PIPING & FIXTURE SPECIFICATIONS HVAC-1 PARTIAL FLOOR PLANS - HVAC HVAC-2 PARTIAL FLOOR PLAN S AND SCHEDULES - HVAC	These documents have been prepared specifically for this project. Reproduction or other use of these documents is prohibited without the approval of the Architect.
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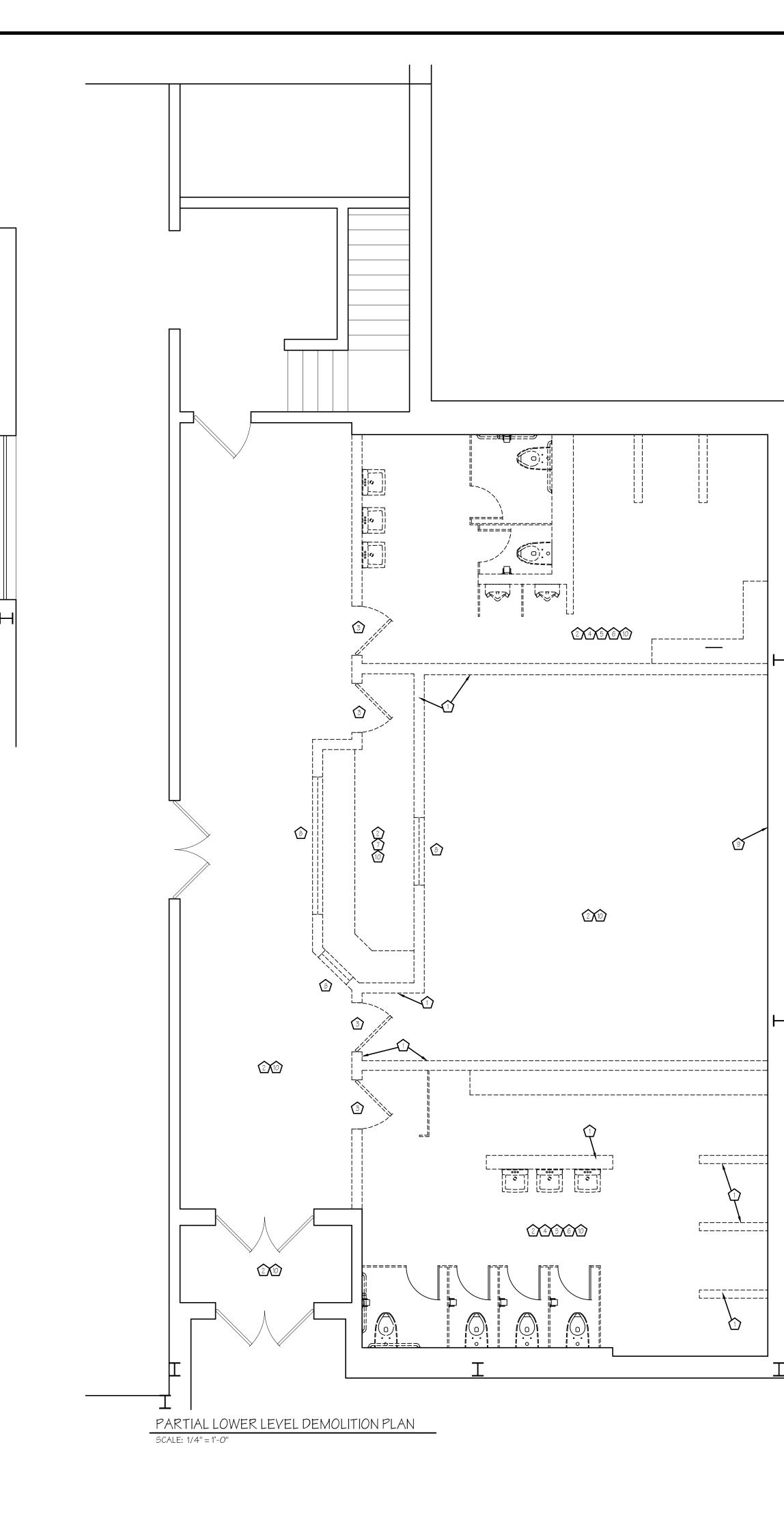


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[:] 6, Table 601) IG HEIGHT:	Existing	g: Existing / 2 sto	ries		Fax: (203) 378-3002 ww	w.antinozzi.a
IG AREA: (SF)					These documents have been specifically for this project. R	
[·] 5) SF = interior face (all s	Total Floor Area stories above grade plane				other use of these document	is prohibite
or wall per definition in Chapter 2	Lower Level Area	a: 13,257 SF			CERTIFICATION:	Archileci.
(†)	oor that tenant resides or Area of Wor				CERTIFICATION.	
SISTANCE RATING REQUIREMENTS (hour	-		-			
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rtical exit enclosures: closures:	1 hour 1 hour					
s (706.4):	3 hours	s NA				
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al assemblies (711.2.4):	2 hours	s 2 hours			CONSULTANT:	
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Path of Egress Travel: Width:		75 FT max 44" min	35 FT 60"			
Dead Ends:		20 FT max	NA			
kit Access Doorway Arrangement (1007.1.1)	Modification #	NA FT min Code Section I	NA Reference	 Approval Date		
SIBLE BUILDING:	Designated					
					BOYS AND GIRLS CLUB OF MERIDEN INTERIOR AND EXTERIOR	KENOVATIONS / ALTERATIONS 15 LINCOLN STREET
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SCALE: 1/4" = 1'-0"



WALL LEGEND

EXISTING WALL OR OBJECT TO BE DEMOLISHED. EXISTING PARTITION WALL.

GENERAL DEMOLITION NOTES

- A. THESE NOTES ARE FOR INTENT PURPOSES ONLY. CONTRACTOR TO BE RESPONSIBLE FOR REMOVING ALL QUANTITIES OF ALL ITEMS AS REQUIRED TO COMPLETE THIS PROJECT AS SHOWN ON THE CONSTRUCTION DOCUMENTS.
- B. ALL SURFACES DISTURBED BY DEMOLITION & NEW CONSTRUCTION OPERATIONS SHALL BE PATCHED, REPAIRED AND BLENDED TO MATCH W/ ADJACENT SURFACES, U.O.N.
- C. ALL CUTTING, PATCHING & DEMOLITION REQUIRED BY ALL TRADES FOR THIS PROJECT IN NEW AND EXISTING AREAS SHALL BE PERFORMED BY THE CONTRACTOR.
- D. DISCONNECT OR DISABLE ALL AFFECTED UTILITIES PRIOR TO COMMENCING WORK. ALL ABANDONED UTILITY LINES (PLUMBING, ELECTRICAL, DATA, ALARM) SHALL BE CUT & CAPPED BELOW FLOOR LINE OR BEHIND WALL LINE. FLOOR OR WALL SHALL BE FINISHED TO MATCH EXISTING ADJACENT SURFACES.
- E. ANY UNUSED ELECTRICAL, SECURITY, OR OTHER SUCH JUNCTION BOXES OR CONTROL PANELS SHALL BE REMOVED.
- F. CONTRACTOR TO CONFIRM STAGING AREAS WITH OWNER TO MINIMIZE THE DISTURBANCE OF DAILY BUILDING OPERATIONS AND TO PROTECT EXISTING SITE ELEMENTS (PAVEMENT, SIDEWALKS, LANDSCAPING, ETC.) FROM DAMAGE.
- G. SEE MECHANICAL DRAWINGS FOR EXTENT OF MECHANICAL DEMOLITION.
- H. SEE ELECTRICAL DRAWINGS FOR EXTENT OF ELECTRICAL DEMOLITION.
- I. SEE PLUMBING DRAWINGS FOR EXTENT OF PLUMBING DEMOLITION.

DEMOLITION NOTES

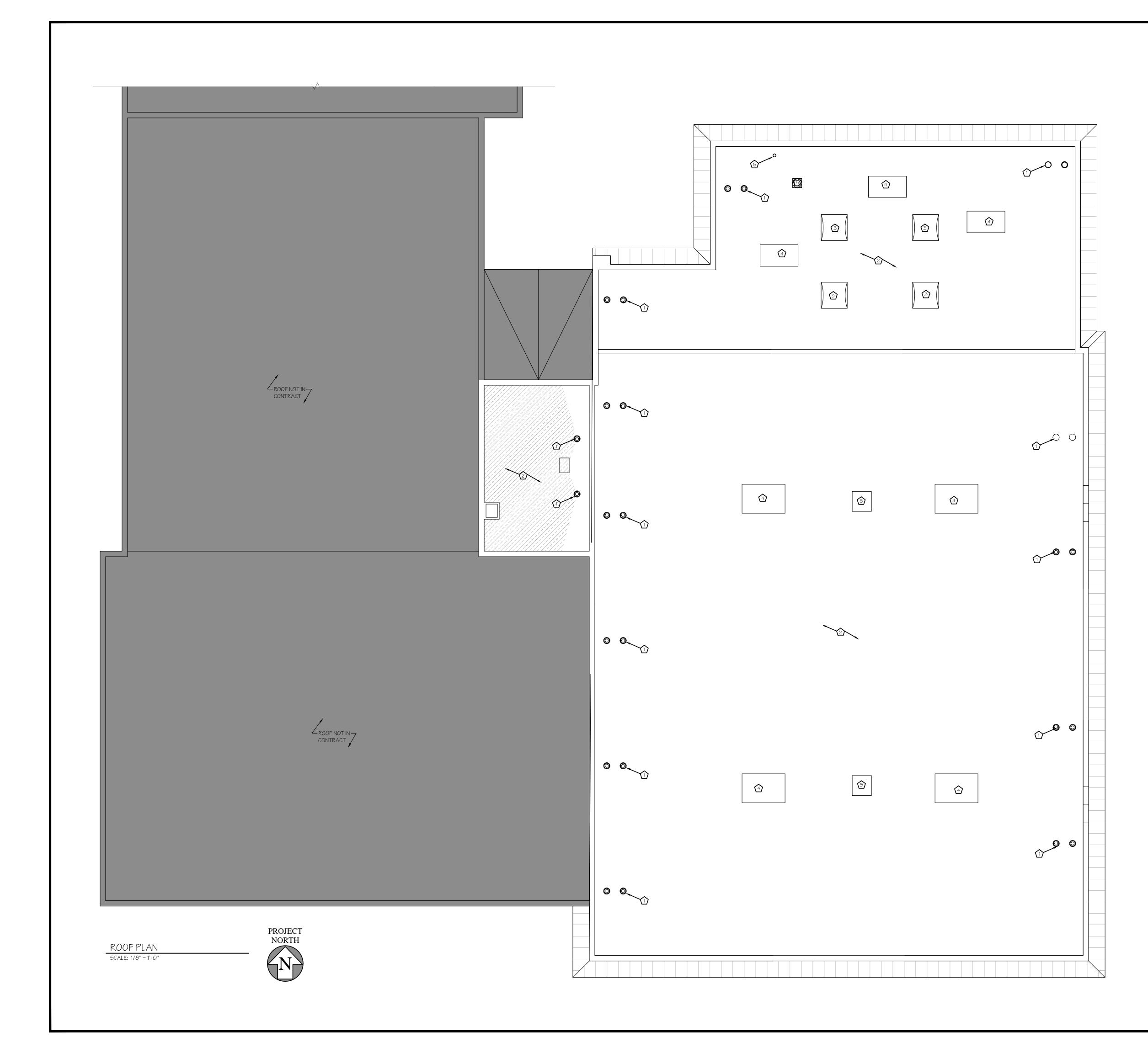
- 1 REMOVE EXISTING WALL & ITEMS LOCATED ON WALL COMPLETELY
- 2 REMOVE EXISTING ACOUSTIC CEILING TILES/GYPSUM BOARD, GRID, LIGHTING,
- AND ASSOCIATED COMPONENTS. 3 REMOVE EXISTING DOOR, FRAME & HARDWARE
- 4 REMOVE EXISTING PLUMBING FIXTURES SEE PLUMBING DRAWINGS FOR
- DEMOLITION NOTES
- 5 REMOVE ALL EXISTING TOILET ROOM ACCESSORIES.
- 6 REMOVE EXISTING LOCKERS
- 7 REMOVE EXISTING MILLWORK
- 8 REMOVE EXISTING WINDOW AND F 9 REMOVE EXISTING MIRRORS. PREF
- 10 REMOVE EXISTING WALL BASE.

FRAME	
EP WALL TO RECEIVE NEW FINISHES.	

ARCH + IN COPYRIGHT 2024 E ANTINOZZI ASSOCI. 271 Fairfield Avenu Bridgeport, Conne Tel: (203) 377-1300 Fax: (203) 378-300	ATES, P.C. Je cticut 06604) 2 www.antinozzi.com have been prepared
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GENERAL ROOF DEMOLITION NOTES

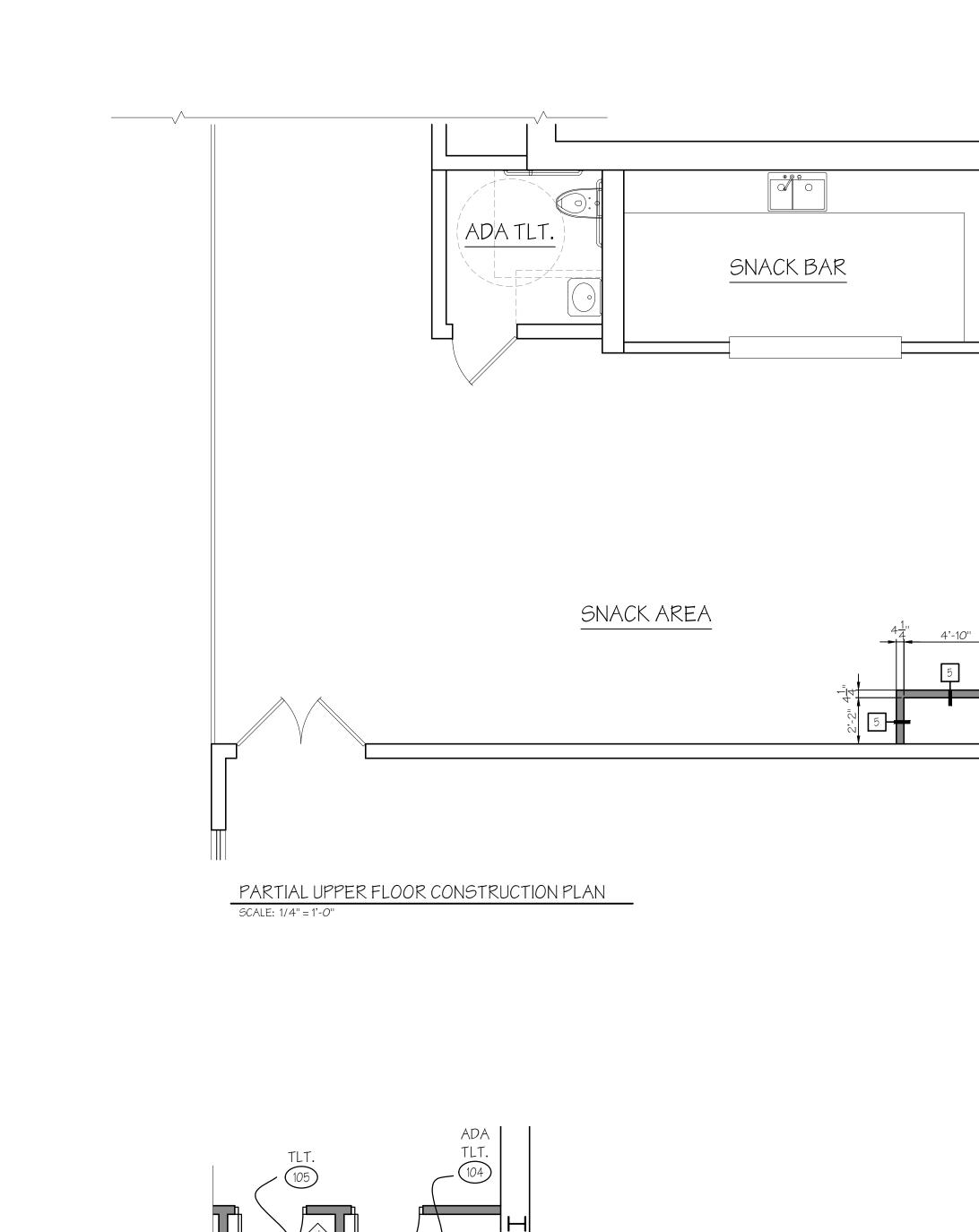
- A. THESE NOTES ARE FOR INTENT PURPOSES ONLY. CONTRACTOR TO BE RESPONSIBLE FOR REMOVING ALL QUANTITIES OF ALL ITEMS AS REQUIRED TO COMPLETE THIS PROJECT AS SHOWN ON THE CONSTRUCTION DOCUMENTS.
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- C. ALL CUTTING, PATCHING & DEMOLITION REQUIRED BY ALL TRADES FOR THIS PROJECT IN NEW AND EXISTING AREAS SHALL BE PERFORMED BY THE CONTRACTOR.
- D. DISCONNECT OR DISABLE ALL AFFECTED UTILITIES PRIOR TO COMMENCING WORK. ALL ABANDONED UTILITY LINES (PLUMBING, ELECTRICAL, DATA, ALARM) SHALL BE CUT & CAPPED BELOW FLOOR LINE OR BEHIND WALL LINE. FLOOR OR WALL SHALL BE FINISHED TO MATCH EXISTING ADJACENT SURFACES.
- E. G.C. TO CONFIRM STAGING AREAS WITH OWNER TO MINIMIZE THE DISTURBANCE OF DAILY BUILDING OPERATIONS AND TO PROTECT EXISTING SITE ELEMENTS (PAVEMENT, SIDEWALKS, LANDSCAPING, ETC.)
- F. AT NO TIME SHALL THE CONTRACTOR REMOVE MORE OF THE EXISTING ROOF THAN WHAT CAN BE INSTALLED IN NEW ROOFING BY THE THE WORKDAY. CONSIDER WEATHER FORECAST PRIOR TO REMOVALS EACH DAY.
- G. ALL FLASHED ROOF PENETRATIONS MARKED EXISTING TO REMAIN(HOODS, EXHAUST FANS, STACK VENTS, ETC.) SHALL BE EVALUATED ON A CASE BY CASE BASIS TO DETERMINE IF AN 8" MINIMUM CLEARANCE FROM ROOF TO FLASHING CAN BE MAINTAINED WITH UNITS FALLING SHORT TO BE TEMPORARILY REMOVED AND STORED SO THAT BLOCKING SUFFICIENT TO RAISE THE UNIT TO 8" MIN. CLEARANCE CAN BE INSTALLED.

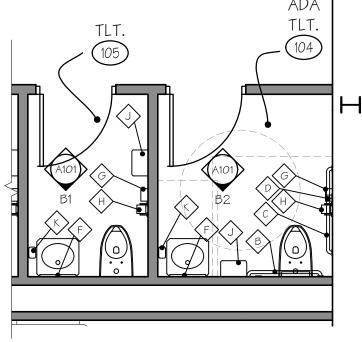
ROOF DEMOLITION NOTES

- 1 REMOVE ROOF DRAIN ASSEMBLIES, EXTENDED PIPE & LEAF GUARDS ASSEMBLIES COMPLETE.
- 2 REMOVE ALL ROOFING MEMBRANE, BUILT UP CRICKETS & INSULATION DOWN TO EXISTING DECK/SUBSTRATE.TYP.
- 3 TEMPORARILY RASIE EXISTING SKYLIGHT & CURB. EXISTING BLOCKING TO REMAIN.
- 4 TEMPORARILY RAISE EXISTING ROOF TOP UNITS TO REMAIN.
- 5 TEMPORARILY RAISE EXISTING FANS TO REMAIN
- 6 EXISTING PIPE/VENT TO REMAIN.

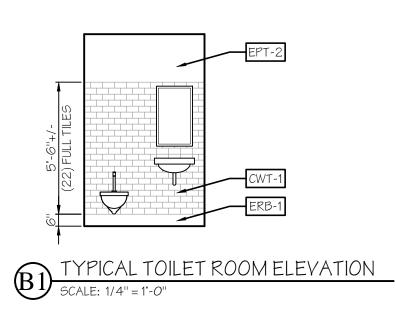
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BOYS AND GIRLS CLUB OF MERIDEN	INTERIOR AND EXTERIOR RENOVATIONS / ALTERATIONS 15 LINCOLN STREET MERIDEN, CONNECTICUT
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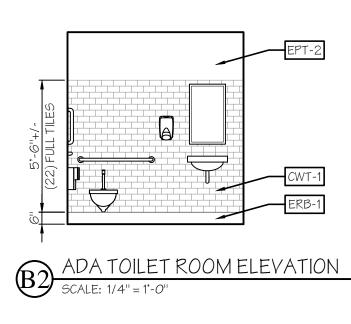
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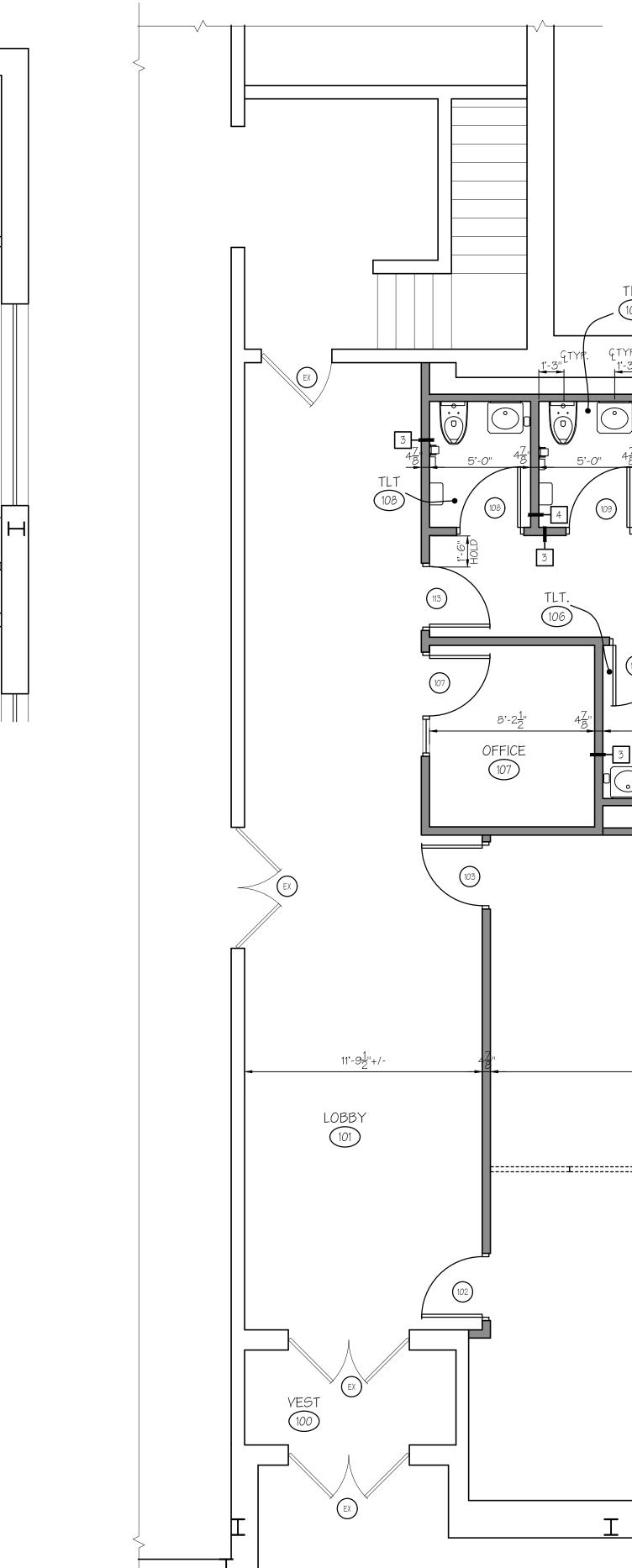


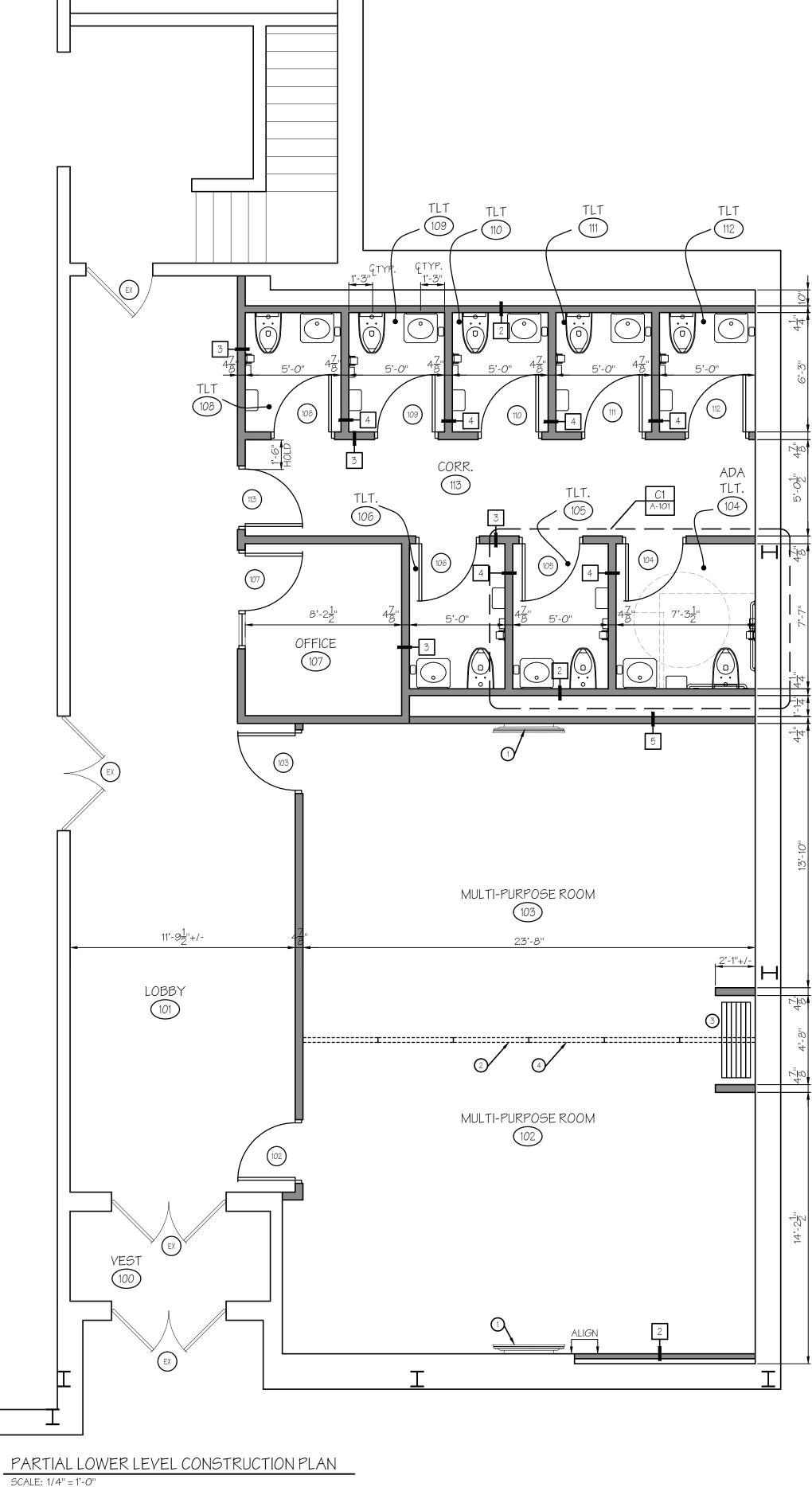


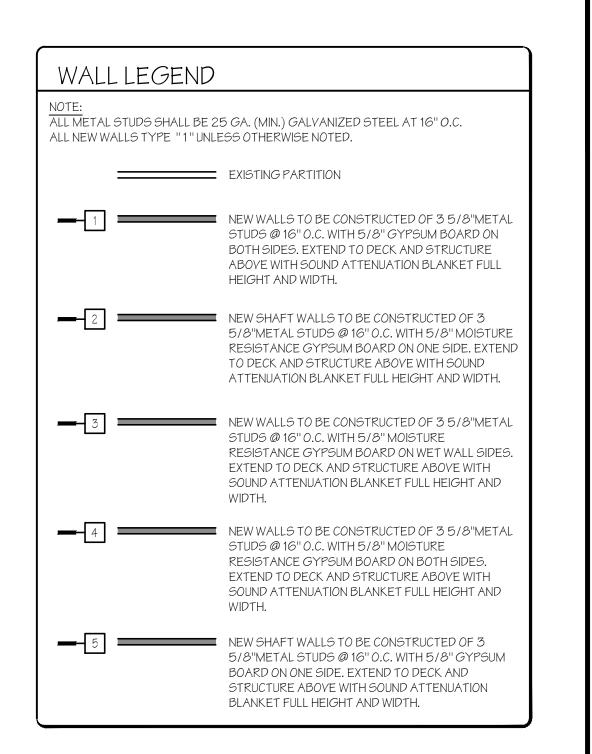
C1 TOILET ROOM ACCESSORY PLAN SCALE: 1/4" = 1'-0"











CONSTRUCTION KEY NOTES

- SHOWN AS: O----
- 1 NEW TV, GC TO PROVIDE BLOCKING IN WALL
- 2 FOLDING PARTITION. BASIS OF DESIGN: MODERNFOLD ACOUSTI-SEAL PREMIER PAIRED PANEL WITH MINIMUM 50 STC RATING. 3 COORDINATE EXACT POCKET SIZE WIDTH AND DEPTH WITH FOLDING PARTITION
- MANUFACTURER
- 4 NEW COLUMNS AND BEAM TO SUPPORT NEW FOLDING PARTITION. REFER TO STRUCTURAL DETAILS.

GENERAL RESTROOM NOTES:

NOTE: THE FOLLOWING NOTES APPLY TO ALL AREAS OF REQUIRED WORK

- 1. REFER TO INFO-1 FOR ALL MOUNTING HEIGHTS FOR HANDICAPPED ACCESSIBLE
- FIXTURES.
- 2. PROVIDE BLOCKING AS REQUIRED PER TYPICAL MOUNTING HEIGHTS AT METAL STUD PARTITIONS. 3. FOR TYPICAL DIMENSIONS AT SINKS AND ACCESSIBLE TOILETS. SEE INFO-1
- SHEET.

ACCESSORY LEGEND

- A 11/2" DIA. STAINLESS STEEL GRAB BAR 30" LONG BOBRICK B-6806.99X30
- B 11/2" DIA. STAINLESS STEEL GRAB BAR 36" LONG BOBRICK B-6806.99X36 C 11/2" DIA. STAINLESS STEEL GRAB BAR - 42" LONG - BOBRICK B-6806.99X42
- D 11/2" DIA. STAINLESS STEEL GRAB BAR 18" LONG BOBRICK B-6806.99X18
- E 11/2" DIA. STAINLESS STEEL GRAB BAR 12" LONG BOBRICK B-6806.99X12
- F 18" x 30" STAINLESS STEEL FRAMED MIRROR. TOP OF MIRROR BOBRICK B-283-1830
- G SURFACE MOUNTED SANITARY NAPKIN DISPOSAL UNIT BOBRICK B-270
- H SURFACE MOUNTED, MULTI ROLL TOILET PAPER DISPENSER TORK 555628 J SURFACE MOUNTED PAPER TOWEL DISPENSER - TORK MATIC 5511282
- K SURFACE MOUNTED SOAP DISPENSER TORK MATIC 570028A

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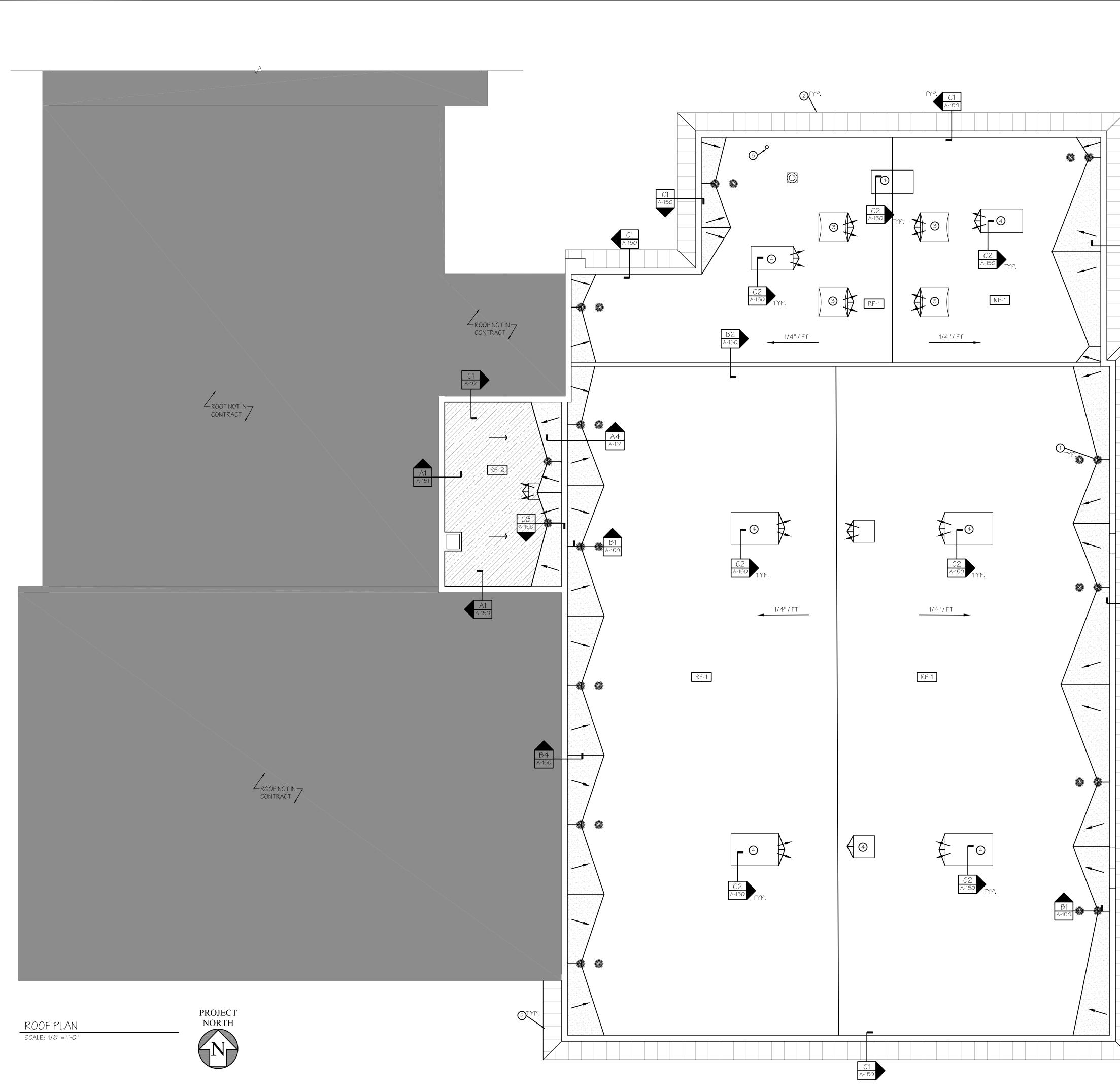
ASSOCIATES

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JANUARY 12, 2024 23035







GENERAL ROOF NOTES

- A. ALL DIMENSIONS TO BE VERIFIED IN FIELD.
- B. ROOFING CONTRACTOR IS RESPONSIBLE FOR ALL WOOD BLOCKING AND FLASHING AT DRAINS, CURBS, ROOF TRANSITIONS, ETC. ALL WOOD BLOCKING TO BE PRESSURE TREATED.
- C. ALL NEW ROOFS SHALL SLOPE AT 1/4" PER FOOT (MIN.) WITH 1/2" CRICKETS. TYPICAL.
- D. PROVIDE INSULATED EDGE STRIPS TO TRANSITIONS ROOFING BETWEEN HIGH POINTS AND LOW POINTS.
- E. WHERE MECHANICALLY FASTENING RIGID ROOF INSULATION TO ANY CONCRETE OR MASONRY BASE MATERIAL, PRE DRILL ALL HOLES PER MANUFACTURER INSTRUCTIONS.
- F. PATCH ALL ROOF OPENINGS, INCLUDING BUT NOT LIMITED TO: FORMER MECHANICAL PENETRATIONS, VENT PIPE, ETC. AS REQUIRED.
- G. PROVIDE ALL NEW PIPE EXTENSIONS AT EXISTING VENT PIPE PENETRATION. TYPICAL.
- H. CONTRACTOR SHALL CONFIRM THE DIMENSIONS OF THE EQUIPMENT BASES AND THE EXTENT OF THE TAPERED CRICKETS REQUIRED TO KEEP WATER OFF THE UNITS.
- I. WHERE NEW AND EXISTING ROOFING ASSEMBLIES ABUT, PROVIDE TRANSITION DETAILS.
- J. METAL DECK AREA: COVER BOARD BEING MECHANICALLY FASTENED (10) PER 4X8 BOARD ZONE 1 +1', (18) PER BOARD ZONE 2, (20) PER BOARD ZONE 3, TESTED TO (-) 90 PSF UPLIFT, EXCEEDS ASCE CALCULATED UPLIFT.
- K. COMPOSITION AND ARRANGEMENT OF EXISTING WOOD BLOCKING HAS NOT BEEN VERIFIED. INSTALL NEW BLOCKING AS NEEDED TO ANCHOR FASCIA TO EXISTING STRUCTURE AND MAINTAIN A CONSISTENT TOP OF WALL HEIGHT.
- L. CONTRACTOR SHALL VERIFY MAXIMUM INSULATION THICKNESS, INCLUDING CRICKETS AND COVER BOARD, BEFORE SETTING BLOCKING AND ESTABLISHING THE TOP HEIGHT OF ROOF TOP UNITS SKYLIGHT AND ANY ROOF TOP ASSEMBLIES.
- M. PROVIDE WALKWAY PADS FROM ROOF ACCESS POINTS TO EQUIPMENT AND ALL OTHER ROOF MOUNTED FACILITIES THAT REQUIRE FREQUENT ACCESS

ROOF CONSTRUCTION NOTES

SHOWN AS: O----

C1

- 1 NEW ROOF CAST DRAINS & OVERFLOW DRAIN WITH PERFORATED STAINLESS STEEL EXTENSION. PROVIDE DRAIN EXTENDER AS REQUIRED.TYPICAL
- 2 EXISTING STANDING SEAM METAL ROOF BELOW
- 3 RE-INSTALL EXISTING DOME SKYLIGHT UNITS ON NEW P.T. WOOD BLOCKING. TYPICAL.
- 4 ALL EXISTING ROOF TOP UNITS TO BE REMOVED AND
- RE-INSTALLED: A. ROOF TOP UNITS TO REMAIN ACTIVE THROUGHOUT
- CONSTRUCTION. B. PROVIDE NEW ADJUSTABLE ROOF CURBS AT EXISTING UNITS C. NEW P.T. BLOCKING AS REQUIRED TO RAISE UNIT 8" MIN ABOVE FINISHED ROOFING SYSTEM.
- 5 PROVIDE NEW PIPE SEAL. REFER TO DETAIL A2/A-150 & B2/A-150

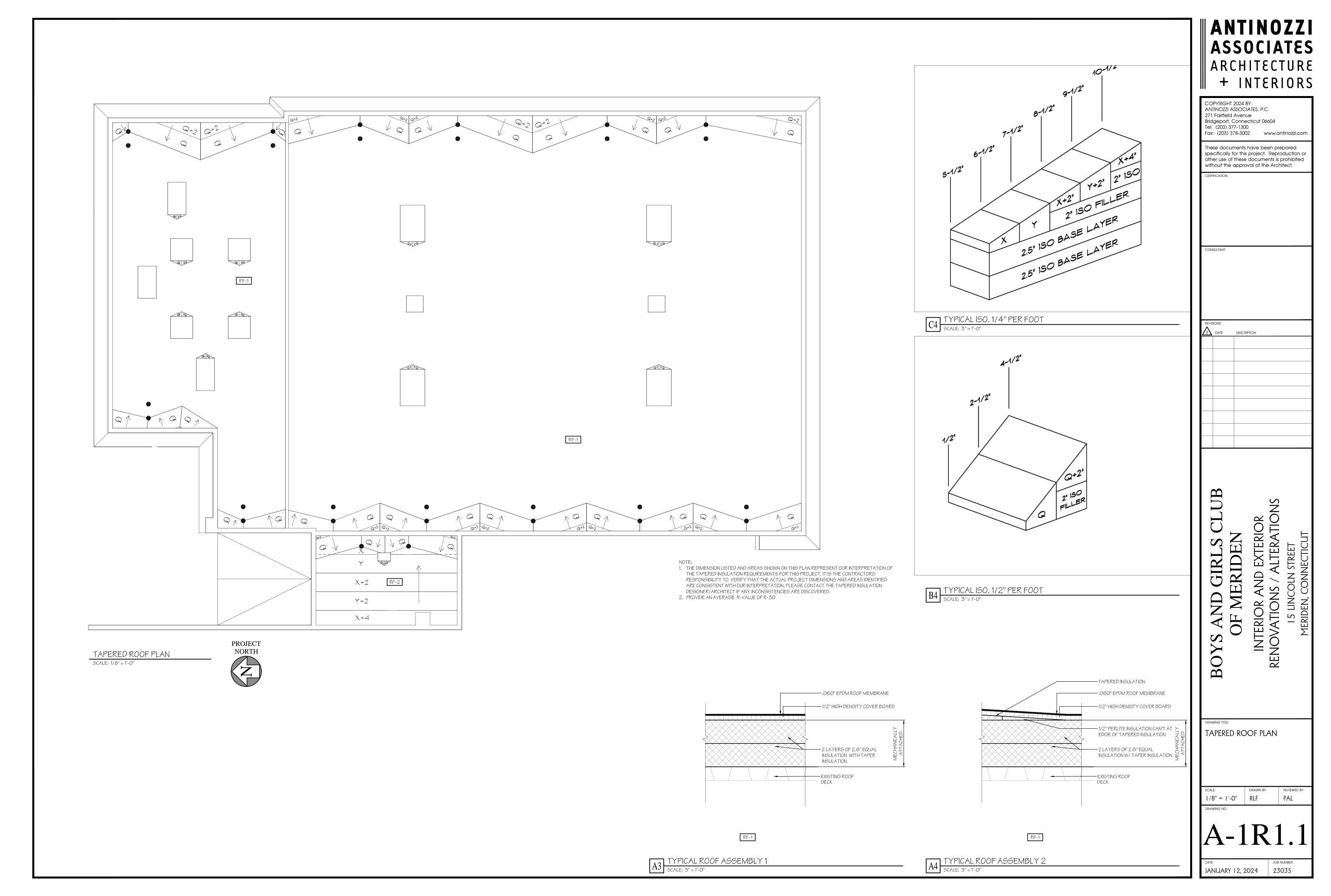
ROOF GRAPHIC LEGEND

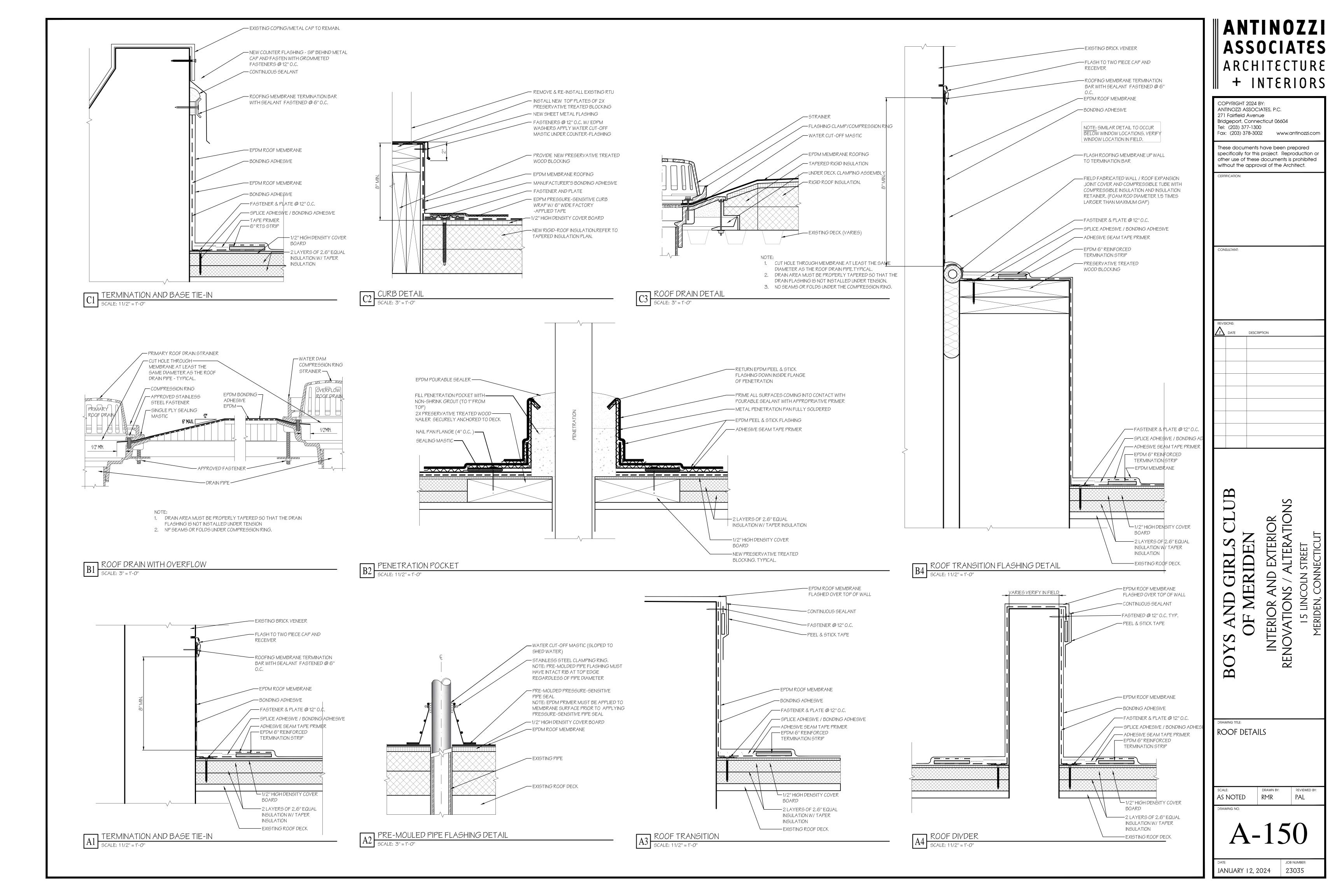
H.P. L.P. R.D.	ROOF HIGH POINT ROOF LOW POINT ROOF DRAIN DIRECTION OF STRUCTURAL SLOPE ROOF PENETRATIONS
	ROOF TOP FAN
	DIRECTION OF TAPERED INSULATION.REFER TO TAPERED INSULATION PLAN
	TAPERED INSULATION CRICKET AT 1/2" PER FOOT
	WALK PADS (SEE GENERAL ROOF NOTE 'M')
RF-1	 SYSTEM ASSEMBLY 1 FULLY ADHERED MEMBRANE ROOFING. 1/2" HIGH DENSITY FOAM INSULATION PROTECTION BOARD, (2) LAYERS OF CONTINUOUS 2.6" RIGID INSULATION EXISTING STRUCTURAL METAL DECK PITCHED
RF-2	 SYSTEM ASSEMBLY2 FULLY ADHERED MEMBRANE ROOFING. 1/2" HIGH DENSITY FOAM INSULATION PROTECTION BOARD, (2) LAYERS OF CONTINUOUS 2.6" RIGID INSULATION EXISTING STRUCTURAL FLAT METAL DECK
	AREA NOT IN CONTRACT (NIC)

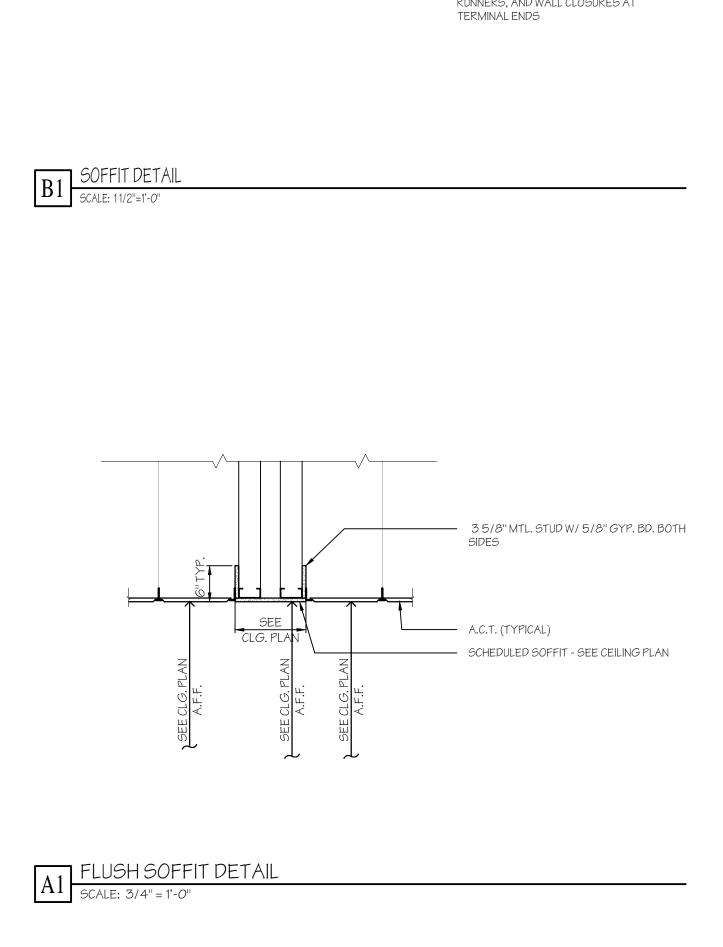
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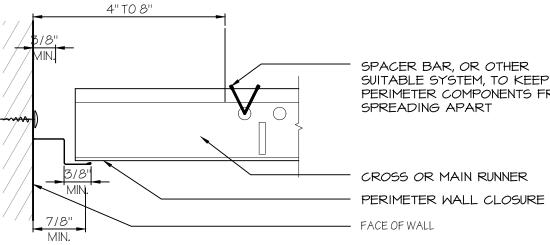
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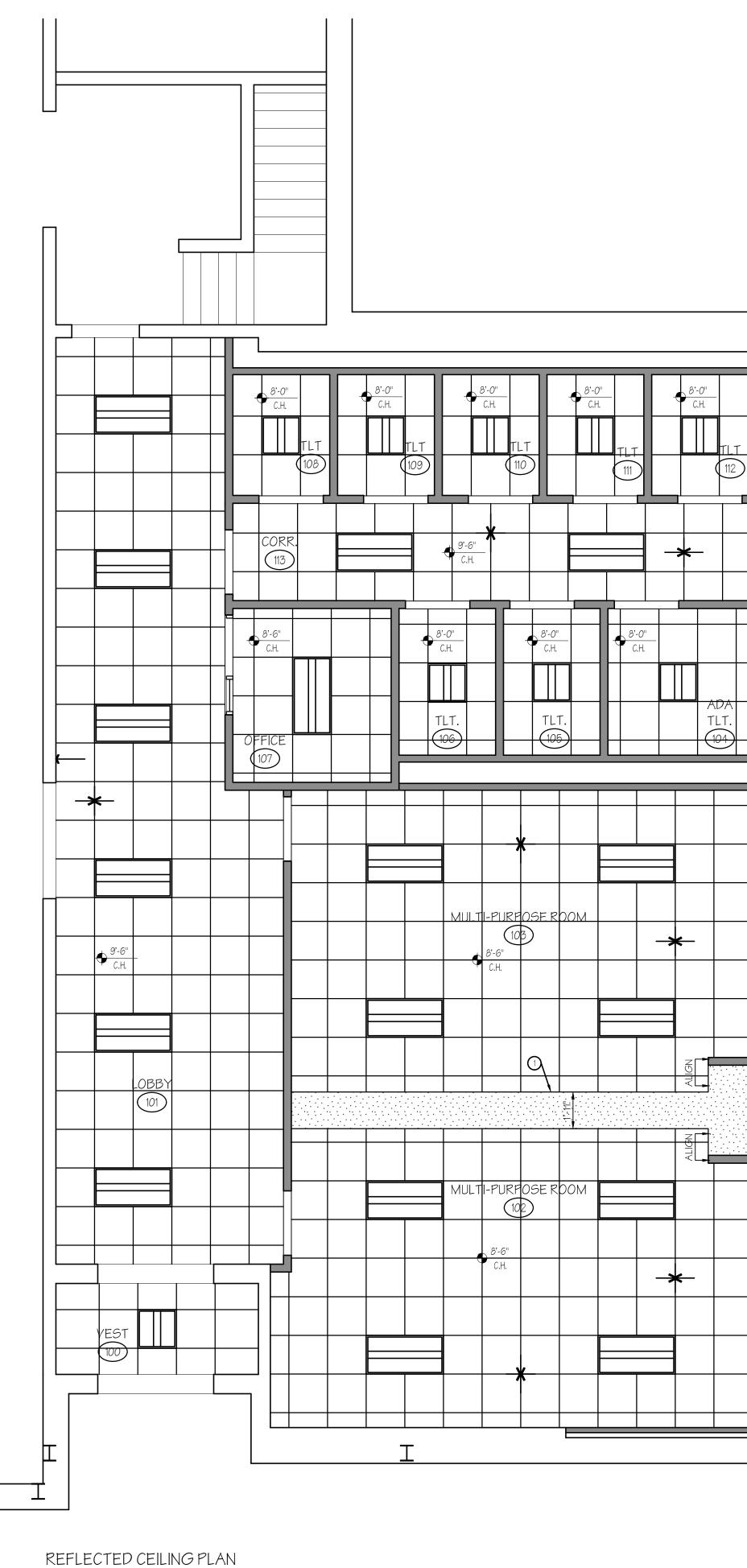


NOTE: TREATMENT OF CROSS RUNNERS, MAIN RUNNERS, AND WALL CLOSURES AT



- CROSS OR MAIN RUNNER

- SPACER BAR, OR OTHER SUITABLE SYSTEM, TO KEEP PERIMETER COMPONENTS FROM SPREADING APART



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

GENERAL CEILING NOTES

- A. REFER TO FINISH LEGEND FI-901 FOR CEILING TYPES AND FINISHES.
- B. ALL PERIMETER TILES THAT MUST BE CUT SHALL BE TEGULARIZED TO MATCH FACTORY CUT AS REQUIRED FOR TILE TO LAY LEVEL.
- C. ALL CEILING HEIGHTS SHALL BE AS NOTED ON CEILING PLAN.
- D. ALL CEILINGS TO BE INSTALLED PER SEISMIC REQUIREMENTS.
- E. ALL LAY-IN CEILINGS SHALL BE CENTERED WITHIN ROOM OR SPACE UNLESS OTHERWISE INDICATED ON THESE DRAWINGS.
- F. COORDINATE LIGHTING LAYOUTS WITH ACTUAL CONDITIONS IN FIELD AND CONSULT WITH ARCHITECT IF LAYOUT REQUIRES CHANGES.
- G. ALL GYPSUM BOARD CEILINGS & SOFFITS SHALL BE PAINTED (PT-4) FLAT FINISH, U.O.N.
- H. SURFACE-MOUNTED CEILING EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED BY HANGER WIRES UP TO CONCRETE DECK OR STRUCTURAL FRAMING ABOVE.
- I. ACOUSTICAL CEILING TILES SHALL NIT BE CUT LESS THANK 6". IN AREAS THAT THIS OCCURS AD JACENT CEILING TILE AND GRID MEMBER SHALL BE REPLACED WITH A 24" X 48" TILE OF THE SAME MANUFACTURER AND STYLE AS THE ADJACENT (CLG-1). CUT FIT IN THE SPACE REMAINING. ELIMINATING ANY SMALL CUT TILES.

SHEET NOTES

SHOWN AS:

1 FLUSH GYPSUM BOARD SOFFIT, REFER TO DETAIL A1/A-201. COORDINATE WITH FOLDING PARTITION MANUFACTURER.





NEW CEILING GRID

GYPSUM BOARD SOFFIT



NEW 24" x 24" LED RECESSED FIXTURE

NEW 24" x 48" LED RECESSED FIXTURE

HEIGHT DENOTES CEILING HEIGHT DENOTES CENTERING OF GRID OR CENTERING OF TILE

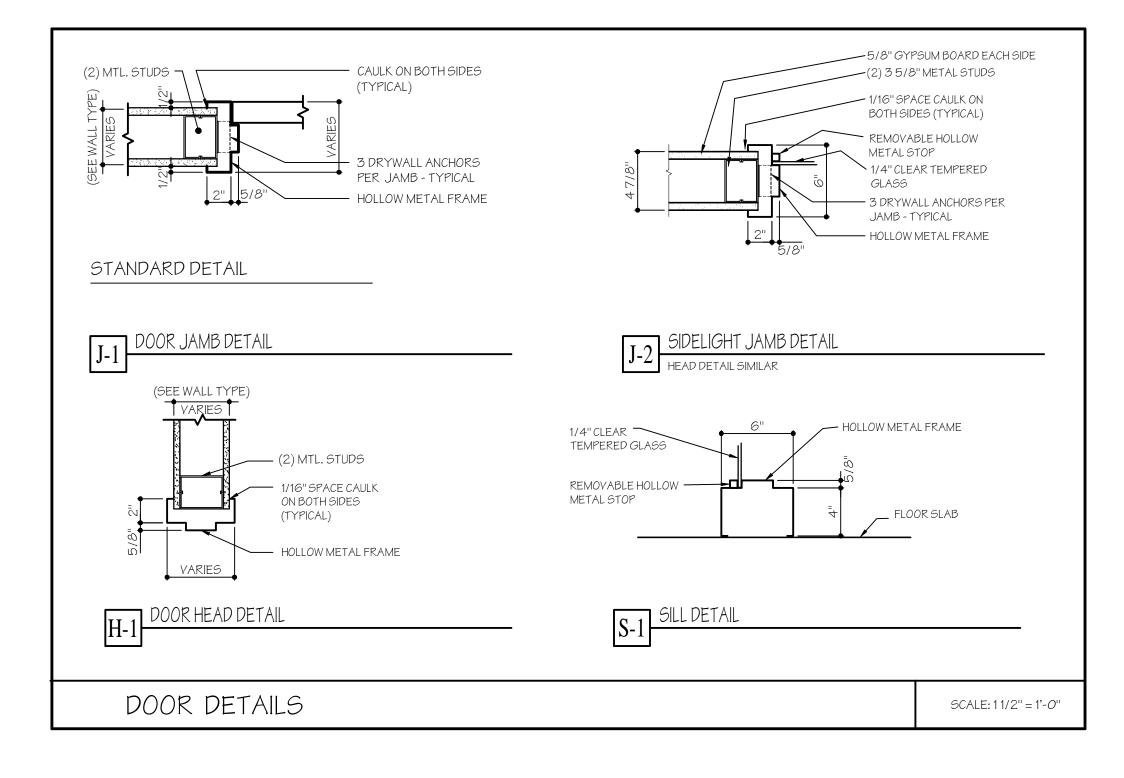
DENOTES EDGE OF GRID AND EDGE OF FULL TILE

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	DESCRIPTION	
	DESCRIPTION	
BOYS AND GIRLS CLUB	INTERIOR AND EXTERIOR	RENOVATIONS / ALTERATIONS 15 LINCOLN STREET MERIDEN, CONNECTICUT
	ED CEILIN AND LEGE DRAWN BY: AAC	ND
DATE:	-2	JOB NUMBER: 23035

GENERAL DOOR NOTES:

- 1. SUBMIT SUBSTITUTIONS IN ACCORDANCE TO DIVISION 1 4. PROVIDE GUARENTEE FROM HARDWARE SUPPLIER AS FOLLOWS: A. HINGES: LIFE OF BUILDING D. EXIT DEVICES: FIVE (5) YEARS; EXCEPT ELECTRIFIED DEVICES, ONE (1) YEAR E. ALL OTHER HARDWARE: ONE (1) YEAR
- EXTENT INDICATED.
- 6. ALL HARDWARE TO BE GRADE 1
- FASTENERS PROVIDED BY THE MANUFACTURER.
- 12. ALL DOORS TO RECEIVE SILENCERS (GREY) U.O.N.



2. OBTAIN EACH TYPE OF HARDWARE (LATCH AND LOCKSETS, HINGES, CLOSERS, ETC.) FROM A SINGLE MANUFACTURER.

3. PROCURE HARDWARE FOR ALL DOORS FROM SINGLE SUPPLIER.

B. CLOSERS - ALL OPENINGS, EXCEPT STC ASSEMBLIES: LIFE OF BUILDING C. LOCKSETS: LIFE OF BUILDING; EXCEPT ELCTRIFIED LOCKSETS, FIVE (5) YEARS

5. PROVIDE SPECIFIED DOOR HARDWARE AS REQUIRED TO MAKE DOORS FULLY FUNCTIONAL, COMPLIANT WITH APPLICABLE CODES, AND SECURE TO

7. INSTALL EACH HARDWARE ITEM IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, USING ONLY THE

8. HARDWARE SHALL BE INSTALLED BY QUALIFIED TRADESMEN SKILLED IN APPLICATION OF COMMERCIAL GRADE HARDWARE.
9. CLEAN FINISHED HARDWARE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTION AFTER FINAL ADJUSTMENTS HAVE BEEN MADE.

10. PROVIDE SHOP DRAWINGS FOR DOOR ELEVATIONS, DETAILS, AND HARDWARE SCHEDULES.

11. PROVIDE DOMED FLOOR STOPS (WITH OR WITHOUT RISERS AS REQUIRED FOR FLOORING CLEARANCE) U.O.N.

FRAME DOOR HARD SIZES FIRECODE BST WD F1 P HM B ST WD F1 P HM 103 A | ST | WD | F1 | P | HM 104 105 A ST WD F1 P HM 106 A ST WD F1 P HM A ST WD F2 P HM 107 A ST WD F1 P HM 108 A ST WD F1 P HM 109 11*0* A ST VD F1 P HM A ST WD F1 P HM 111 _ A ST WD F1 P HM 112

DOOR SCHEDULE NOTES

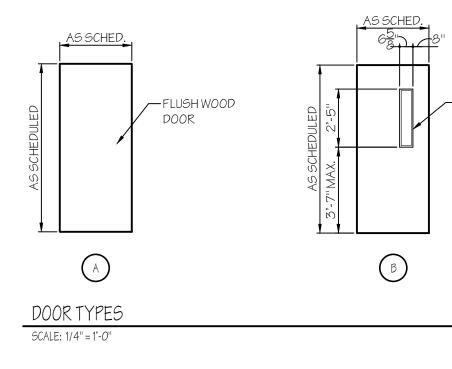
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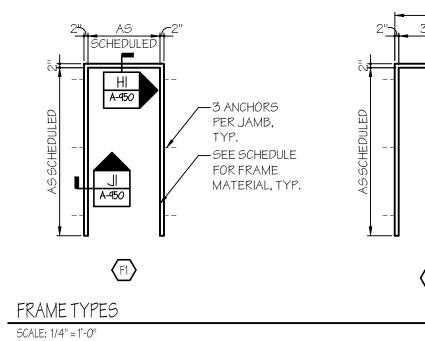
1. PROVIDE 1/2" UNDERCUT ON ALL INTERIOR DOORS U.O.N.

A ST

WD F1 P HN

2. INCLUDE CUTSHEET OF ALL HARDWARE WITH SUBMITTAL





DOOR SCHEDULE

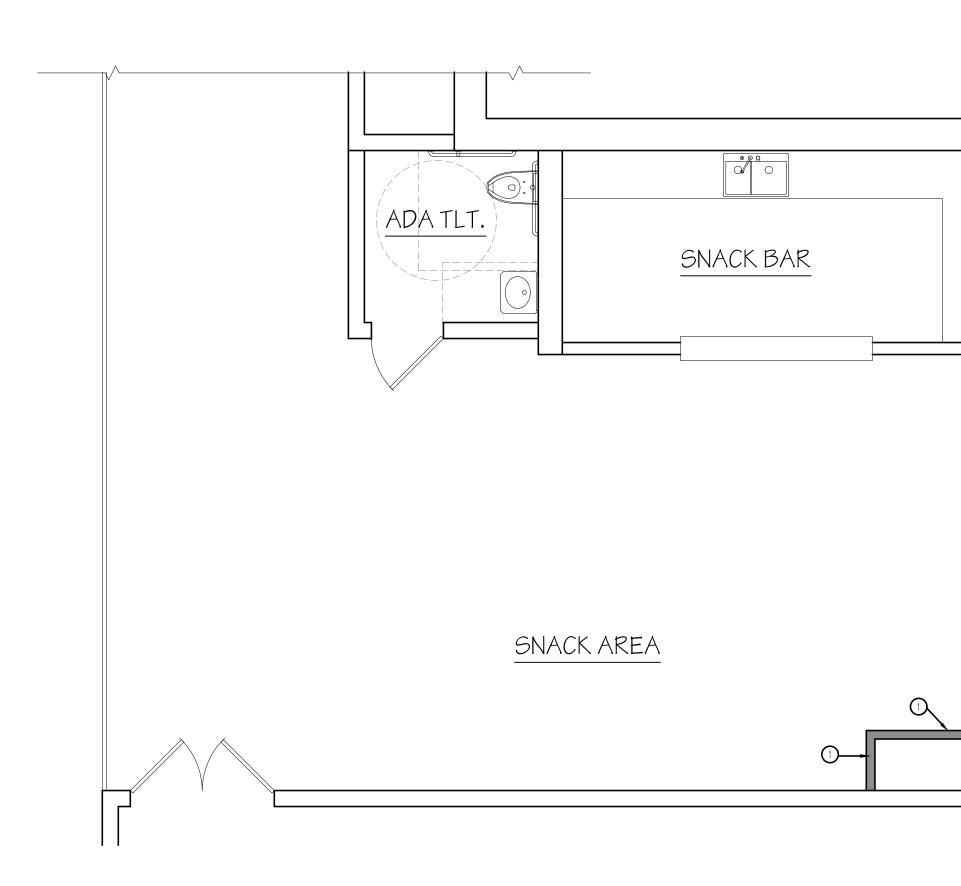
DW.	ARE												
	Α	DAF	REQ	'MN	TS								ABBREVIATIONS
AUTOMATIC CLOSER	LEVER HANDLES	KICK PLATE PUSH SIDE	ACCESS THRESHOLD	PUSH/PULL HARDWARE	PASSAGE LATCH SET	LOCKSET (CLASSROOM)	LOCKSET (PRIVACY)	LOCKSET (STOREROOM)	LOCKSET (OFFICE)	SURFACE-MOUNTED CLOSER	HINGES	FLOOR DOME STOP	P PAINT EX EXISTING S STAIN F FACTORY FINISH HM HOLLOW METAL WD WOOD AL ALUMINUM SC SOLID CORE GL GLASS DOOR SCHEDULE NOTES
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- GLASS RATING ТО МАТСН DOOR RATING

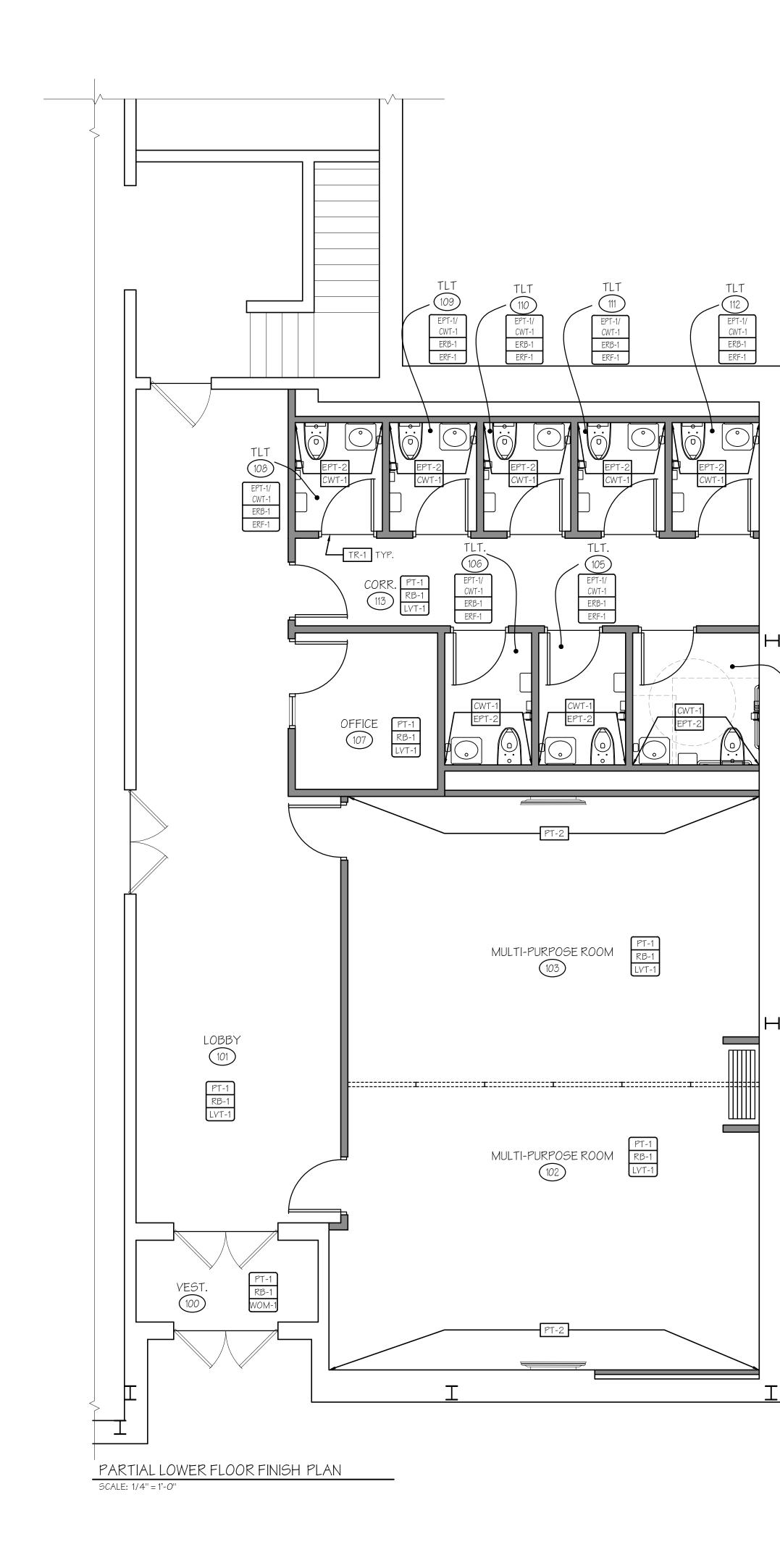
3 ANCHORS PER JAMB, TYP. - SEE SCHEDULE FOR FRAME MATERIAL, TYP. (F2)

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BOYS AND GIRLS CLU OF MERIDEN INTERIOR AND EXTERIOR RENOVATIONS / ALTERATIONS 15 LINCOLN STREET MERIDEN, CONNECTICUT				
DRAWING TITLE: DOOR SCHEDULE AND DETAILS SCALE: DRAWN BY: REVIEWED BY:				
AS NOTED DRAWING NO. DATE: JANUARY 12, 2	-9(PL D1 JOB NUIMBER: 23035		







GENERAL FINISH NOTES

- A. FINISH FLOOR PLANS SHALL BE USED IN CONJUNCTION WITH FINISH LEGEND, INTERIOR ELEVATIONS, AND GENERAL SPECIFICATIONS. SHOULD THERE BE A DISCREPANCY BETWEEN INFORMATION GIVEN ON THE FINISH LEGEND WITH ANY DRAWING OR SPECIFICATION, CONTRACTOR SHALL CONTACT ARCHITECT FOR CLARIFICATION.
- B. PAINTING SCHEDULE: ALL PAINTING SHALL BE AS INDICATED BY PLAN NOTES AND FINISH LEGEND. WALLS, GYP. BD. SURFACES AND OTHER PAINTED SURFACES - (EGGSHELL) ONE (1) PRIME COAT & TWO (2) FINISH COATS
 - DOOR / DOOR FRAMES (SEMI-GLOSS) ONE (1) PRIME COAT & TWO (2) FINISH COATS, U.O.N.
- C. ALL PAINTED WALLS SHALL RECEIVE EGGSHELL FINISH, U.O.N.
- D. ALL CEILINGS, SOFFITS AND FASCIAS TO BE PAINTED (PT-X) AND RECEIVE A FLAT FINISH, U.O.N. SEE FINISH LEGEND AND CEILING PLANS FOR DELINEATIONS OF COLORS.
- U.O.N. F. ALL WOOD DOORS SHALL RECEIVE WOOD FINISH (WD-1), U.O.N. REFER TO DOOR SCHEDULE.

E. ALL PAINTED WALLS IN TOILET ROOMS AND SHALL RECEIVE EPOXY BASED PAINT,

- G. ALL HOLLOW METAL DOOR FRAMES SHALL BE PAINTED (PT-3), U.O.N.
- H. CONTRACTOR TO VERIFY WITH ARCHITECT ON DIRECTION OF ALL LAMINATES, RESIN PANELS, ETC. FOR QUANTITY TAKE OFFS.
- I. ALL TRANSITIONS IN FLOORING TO OCCUR AT CENTERLINE OF DOOR, U.O.N.
- J. FLOOR TRANSITIONS BETWEEN DIFFERING MATERIALS ARE REQUIRED, U.O.N. REFER TO SHEET FI-101 FOR TYPICAL DETAILS. REFER TO FINISH LEGEND FI-101 AND FINISH FLOOR PLANS FOR TRANSITION LOCATIONS & FINISH.
- K. ALL RUBBER BASE IN AREAS WITH RESILIENT FLOORING TO BE "STANDARD COVE BASE'', U.O.N.
- L. ALL ELECTRICAL SWITCH PLATES AND RECEPTACLES SHALL BE WHITE.

FINISH KEY NOTES

SHOWN AS: ()----

ADA TLT.

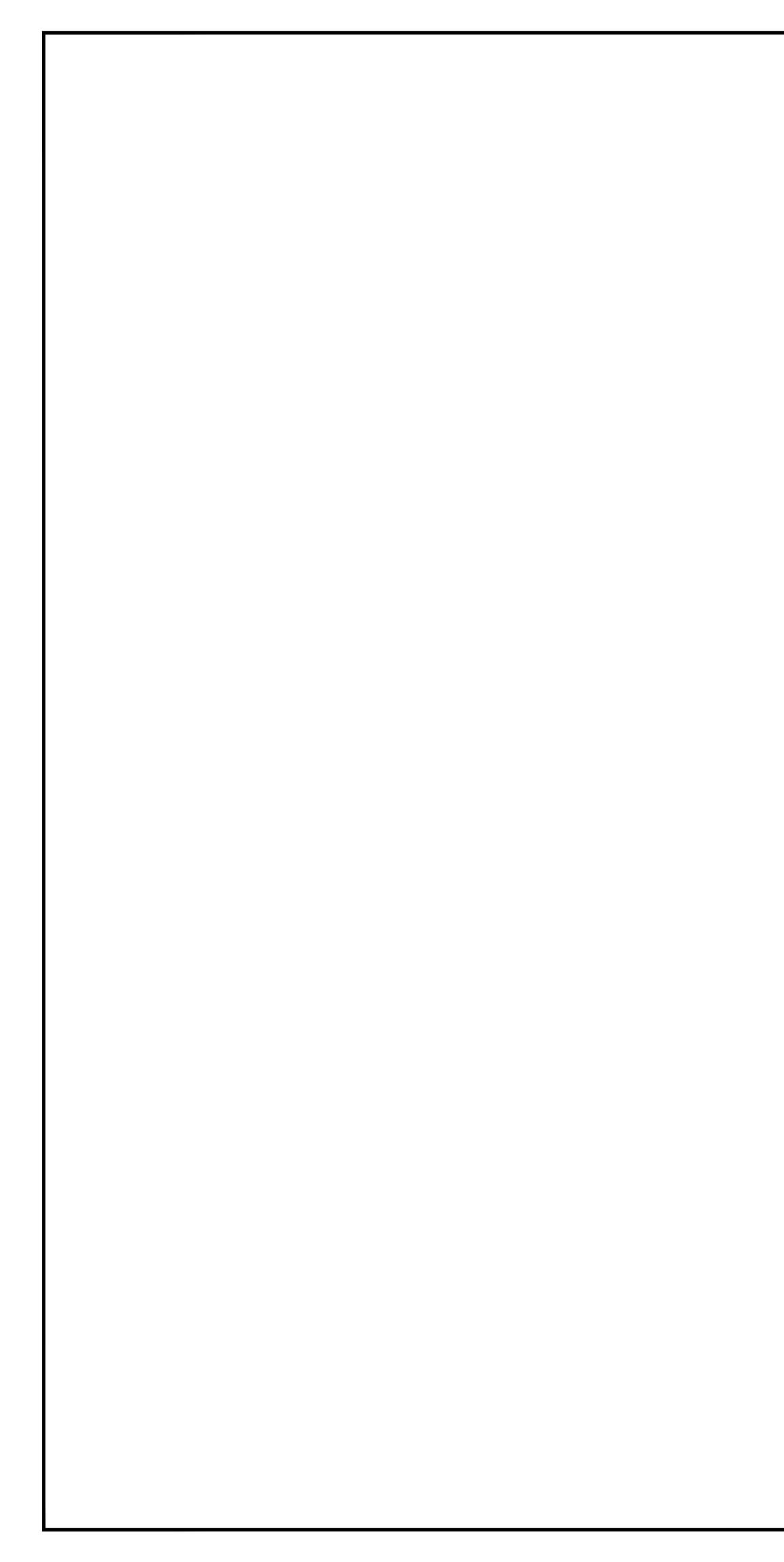
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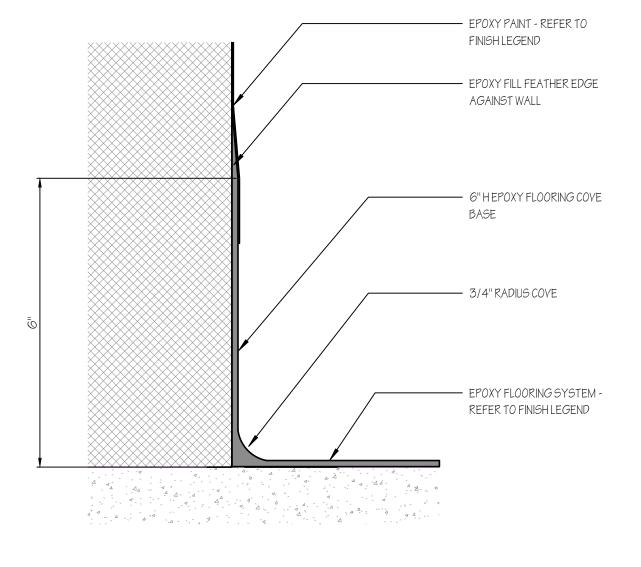
FRF-1

- 1 NEW WALLS TO BE PAINTED TO MATCH EXISTING AD JACENT WALLS AND
- MATCHING ADJACENT WALL BASE.

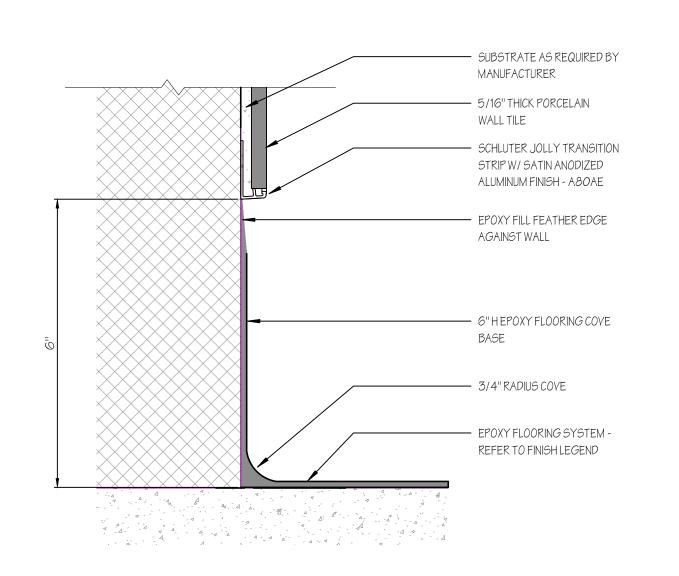
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BOYS AND GIRLS CLUB OF MERIDEN	INTERIOR AND EXTERIOR RENOVATIONS / ALTERATIONS 15 LINCOLN STREET MERIDEN, CONNECTICUT
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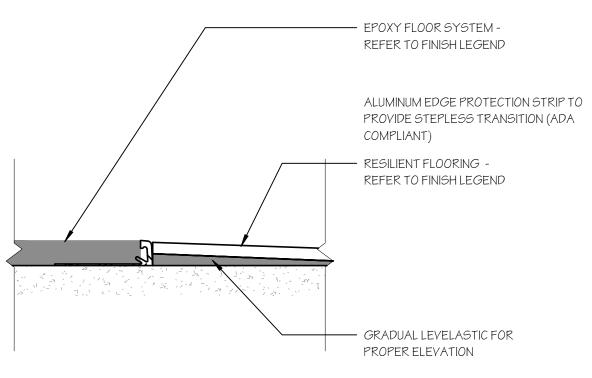




C1 BASE DETAIL @ EPOXY FLOOR SYSTEM



C2 EPOXY COVE BASE TO CERAMIC



NOTE: EPOXY FLOORING SYSTEM TO BE POURED FIRST FOR PROPER ELEVATION OF FINISH MATERIAL AT TRANSITION

FLOOR TRA	NSITION STR	RIPS	
DESIGNATION	MANUFACTURER	STYLE	COLOR
TR-1	SCHLUTER	SCHIENE	SATIN ANODIZED

FI	NISH LEGEND		ASS ARCH		
CEIL	ING			NTEF	
CLG-1	MANUF: ARMSTRONG WORLD INDUSTRIES STYLE: CALLA SIZE: 24" X24" X 1" #2822 GRID: 9/16" SQUARE TEGULAR COLOR: WHITE AREAS: GENERAL CEILINGS U.O.N. NOTE: USE TEG-TAB GRID SYSTEM FOR TEGULAR TILE		COPYRIGHT 2024 ANTINOZZI ASSOC 271 Fairfield Aven Bridgeport, Conne Tel: (203) 377-130 Fax: (203) 378-30	BY: CIATES, P.C. Nue ecticut 06604 00	
CER	AMIC WALL TILE		These documents specifically for thi	s have been p	prepared
CWT-1	MANUF: DALTILE STYLE: COLOR WHEEL COLOR: TBD SIZE: 3" X6" GROUT: TBD		other use of these without the appro	e documents	is prohibi [.]
EPO	XYPAINT				
EPT-1 EPT-2	MANUF: BENJAMIN MOORE COLOR: T.B.D GENERAL WALL COLOR MANUF: BENJAMIN MOORE				
	COLOR: T.B.D ACCENT COLOR		CONSULTANT:		
EPO ERB-1	XY RESIN BASE MANUF: SHERWIN WILLIAMS STYLE: HYBRI-FLEX EB				
	COLOR: TBD TOP COAT: ARMOR TOP GLOSS COAT				
EPO ERF-1	XY RESIN FLOORING MANUF: SHERWIN WILLIAMS				
	STYLE: HYBRI-FLEX EB COLOR: TBD TOP COAT: ARMOR TOP GLOSS COAT W/ GRIT NOTE: INCLUDE INTEGRAL 6" COVE BASE			RIPTION	
LUXI	JRY VINYL TILE				
LVT-1	MANUF: SHAW CONTRACT STYLE: CAST COLOR: T.B.D. SIZE: 24" X24"				
PAIN	INSTALL: T.B.D.				
PT-1 PT-2	MANUF: BENJAMIN MOORE COLOR: T.B.D GENERAL WALL COLOR MANUF: BENJAMIN MOORE	-			
-Z -3	COLOR: T.B.D ACCENT COLOR MANUF: BENJAMIN MOORE COLOR: T.B.D				
	DOOR FRAMES MANUF: BENJAMIN MOORE COLOR: T.B.D GYPSUM BOARD SOFFITS		UB	S	
RUB	BER BASE		Ţ	OR	2
RB-1	MANUF: TARKETT COLOR: TBD SIZE: 4" HIGH		ENCE	TERIO	LIVVI
WAL	K OFF MAT			EX	STRI
WOM-1	MANUF: SHAW CONTRACT STYLE: WELCOME II TILE 5T031 COLOR: TBD INSTALLATION: MONOLYTHIC; DIRECT GLUE SIZE: 24" X 24"		BOYS AND G OF MER	INTERIOR AND	
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<u>SCOPE</u>

THE WORK TO BE DONE UNDER THIS DIVISION OF THE SPECIFICATIONS INCLUDE THE FURNISHING OF ALL EQUIPMENT, SUPPLIES, LABOR, SUPERVISION AND ALL MATERIALS NOT SPECIFICALLY MENTIONED, READY FOR USE, PLUMBING, FIRE SPRINKLER, HEATING AND VENTILATION EQUIPMENT AND ASSOCIATED ITEMS. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

IT IS THE INTENT THAT ALL MECHANICAL WORK AND MATERIALS NECESSARY TO COMPLETE THE ENTIRE PROJECT IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS, WHERE SPECIFICALLY MENTIONED HERE OR NOT, SHALL BE FURNISHED. ALL WORK AND MATERIALS NECESSARY TO FULFILL THIS INTENT SHALL BE SUPPLIED UNDER THE MECHANICAL SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER. CODES, RULES, PERMITS AND FEES

THIS CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL STATE AND LOCAL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL STATE AND LOCAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVERY OF SAME TO THE OWNER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

THIS CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS WHETHER OR NOT SHOWN ON THE DRAWINGS AND/OR SPECIFIED.

THIS CONTRACTOR SHALL PERFORM AND FILE ALL TESTS IN ACCORDANCE WITH CURRENT REGULATIONS OF THE STATE AND LOCAL AUTHORITIES. HE SHALL FURNISH AND INSTALL ALL SIGNS REQUIRED BY THE STATE AND LOCAL AUTHORITIES. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH ALL RULES AND RECOMMENDATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, WITH ALL REQUIREMENTS OF LOCAL UTILITIES COMPANIES, WITH THE RECOMMENDATIONS OF THE FIRE INSURANCE RATING ORGANIZATION HAVING JURISDICTION.

REGULATIONS

ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CURRENT STATE OF CONNECTICUT BASIC BUILDING CODE, THE CURRENT STATE FIRE SAFETY CODE, ADA, UL, NEMA, OSHA, INTERNATIONAL PLUMBING & MECHANICAL CODES AND NFPA, WITH ALL REQUIREMENTS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION. REQUIREMENTS OF THE ABOVE SHALL TAKE PRECEDENCE OVER PLANS AND SPECIFICATIONS.

GUARANTEE AND SERVICE

THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE INSTALLATION. IN ADDITION, THE CONTRACTOR SHALL PROVIDE, FREE OF CHARGE, ONE YEAR'S MAINTENANCE GUARANTEE OF MAINTAINED SERVICE AND ADJUSTMENT OF ALL EQUIPMENT IN THIS CONTRACT.

DRAWINGS AND INTENT

DRAWINGS ARE INTENDED AS WORKING DRAWINGS FOR GENERAL LAYOUT OF THE VARIOUS ITEMS OF EQUIPMENT. HOWEVER, LAYOUT OF EQUIPMENT, ACCESSORIES, SPECIALTIES, AND PIPING SYSTEMS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED, AND DO NOT NÉCESSARILY INDICATE EVERY REQUIRED PIPE, VALVE, FITTINGS, TRAP, ELBOW, TRANSITION, OFFSETS, JUNCTION OR PULLBOX, OR SIMILAR ITEMS REQUIRED FOR A COMPLETE INSTALLATION. RELATED WORK IN OTHER DIVISIONS

ALL ELECTRICAL WORK, SETTING OF ACCESS DOORS IN HUNG CEILINGS, WALL AND FURRED SPACES, FINISHED PAINTING OF PIPING AND EQUIPMENT, CUTTING & PATCHING AND CONCRETE WORK WILL BE DONE BY OTHER CONTRACTORS.

PLUMBING AND MECHANICAL CONTRACTORS SHALL FURNISH THE GENERAL CONTRACTOR WITH ALL SIZES AND LOCATIONS OF ALL PIPING AND OPENINGS WHICH OCCUR IN WALLS, PARTITIONS, FLOORS, ETC.. ALL REQUIRED OPENINGS AND CHASES FOR THE INSTALLATION OF ALL WORK CALLED FOR UNDER THIS CONTRACT, WILL BE DONE BY THE GENERAL CONTRACTOR, EXCEPT CUTTING REQUIRED FOR THE INSTALLATION OF PIPING AND DUCT HANGERS.

MEASUREMENTS

ALL FIELD MEASUREMENTS TAKEN AT THE BUILDING, SHALL TAKE PRECEDENCE OVER SCALED DRAWING DIMENSIONS. EVERY PART OF ALL SCALED PLANS SHALL BE FITTED TO THE ACTUAL CONDITIONS AT THE BUILDING. IF IN CONFLICT WITH SCALE DIMENSIONS, CONTACT ARCHITECT FOR CLARIFICATION. PROTECTION OF FIXTURES, MATERIALS AND EQUIPMENT

TIGHTLY CLOSE ALL NEW PIPE OPENINGS WITH CAPS OR PLUGS DURING INSTALLATION. TIGHTLY COVER AND PROTECT FIXTURES AND EQUIPMENT AGAINST DIRT, WATER AND CHEMICAL OR MECHANICAL INJURY. AT COMPLETION OF ALL WORK, FIXTURES, EXPOSED MATERIALS AND EQUIPMENT SHALL BE THOROUGHLY CLEANED.

DEMOLITION

CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, ETC., REQUIRED TO COMPLETE ALL DEMOLITION & REMOVAL WORK NECESSARY FOR THE FULL COMPLETION OF ALL WORK UNDER THIS CONTRACT. PROTECT ALL EXISTING PARTS AND EQUIPMENT THAT ARE TO REMAIN. ASSUME FULL RESPONSIBILITY FOR ALL BUILDING DAMAGE GENERATED UNDER THIS CONTRACT. ALL ITEMS BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE INDICATED BY HIM. EQUIPMENT AND DEVICES THE OWNER DOES NOT WISH TO RETAIN SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND REMOVED FROM THE SITE. ALL MATERIAL CHOSEN TO BE RETAINED BY THE OWNER SHALL BE DELIVERED BY THE CONTRACTOR TO SUCH POINT AS DESIGNATED BY THE OWNER.

EXAMINATION OF PREMISES - SPECIAL NOTE

NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO VISIT THE PROJECT SITE, INCLUDING ANY ALLEGED MISUNDERSTANDING OF MATERIALS TO BE FURNISHED, OR WORK TO BE DONE. THE CONTRACTOR SHALL BE ASSUMED TO HAVE VISITED THE PREMISES AND NOTED ALL EXISTING PERTINENT FACTS AND DATA INCLUDING THE CONDITIONS UNDER WHICH THE WORK MUST BE CARRIED OUT, AND NO ALLOWANCE WILL BE MADE FOR FAILURE TO HAVE DONE SO.

SCAFFOLDING, RIGGING AND HOISTING

UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES OF ANY EQUIPMENT AND APPARATUS FURNISHED. CONTRACTOR SHALL REMOVE ALL DESIGNATED EQUIPMENT FROM THE PREMISES WHEN NO LONGER REQUIRED.

HOUSEKEEPING

PLUMBING, FIRE PROTECTION & MECHANICAL CONTRACTORS SHALL BE RESPONSIBLE FOR KEEPING STOCK OF MATERIALS AND EQUIPMENT STORED ON PREMISES IN A NEAT AND ORDERLY MANNER AND, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY HIS EMPLOYEES AT WORK. CONTRACTORS SHALL REMOVE THEIR RUBBISH AND SURPLUS MATERIALS FROM THE JOB SITE AND SHALL LEAVE THE PREMISES AND HIS WORK IN A CLEAN AND PERFECT CONDITION.

QUIET OPERATION

ALL EQUIPMENT SHALL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT ANY SOUND OR VIBRATION WHICH IS OBJECTIONABLE IN THE OPINION OF THE ENGINEER. IN CASE OF MOVING MACHINERY, SOUND OR VIBRATION NOTICEABLE OUTSIDE OF ROOM IN WHICH IT IS INSTALLED, OR ANNOYING INSIDE ITS OWN ROOM, WILL BE CONSIDERED OBJECTIONABLE BY THE ENGINEER AND SHALL BE REMEDIED FOR CORRECTIVE MEASURES, BY INSTALLING CONTRACTOR AT HIS EXPENSE.

SHOP DRAWINGS

PRIOR TO DELIVERY TO JOB SITE, BUT SUFFICIENTLY IN ADVANCE OF REQUIREMENTS NECESSARY TO ALLOW ENGINEER AMPLE TIME FOR REVIEW, CONTRACTOR SHALL SUBMIT FOR APPROVAL, ELECTRONIC COPIES EACH OF SHOP DRAWINGS OF ALL EQUIPMENT TO ENGINEER AND ARCHITECT DRAWN, ALSO SHEET METAL FABRICATION DRAWINGS DRAWN TO A SCALE OF 1/4" TO THE FOOT OR LARGER.

EQUIPMENT DEVIATION

THE PLANS AND/OR SPECIFICATIONS INDICATE THE NAME, MODEL NUMBER OR TYPE OF EQUIPMENT OR MATERIALS SPECIFIED. SHOULD THE BIDDER DESIRE TO USE EQUIPMENT OR MATERIALS OR A MAKE OTHER THAN THOSE SPECIFIED OR SHOWN, HE SHALL ATTACH A RIDER TO THE BID FORM LISTING THE DEDUCTIONS AND/OR ADDITIONS TO HIS BASE BID, TOGETHER WITH THE MANUFACTURER'S NAME AND MODEL NUMBERS OF THE EQUIPMENT OR MATERIALS HE PROPOSED TO FURNISH AS "SUBSTITUTES". IF NO SUBSTITUTE INFORMATION IS FURNISHED, IT WILL BE EXPRESSLY UNDERSTOOD THAT ALL EQUIPMENT AND MATERIALS NAMED WILL BE FURNISHED IN FULL ACCORDANCE WITH THE PLANS AND/OR SPECIFICATIONS.

OWNER'S INSTRUCTIONS AND SYSTEM OPERATION

AT THE TIME OF THE JOB'S ACCEPTANCE BY OWNER, CONTRACTOR SHALL FURNISH ONE COMPLETE SET OF APPROVED CERTIFIED DRAWINGS TO THE OWNER. IN ADDITION, CONTRACTOR SHALL FURNISH MAINTENANCE AND OPERATING INSTRUCTIONS FOR ALL EQUIPMENT. THESE INSTRUCTIONS SHALL BE WRITTEN IN LAYMAN'S LANGUAGE AND SHALL BE INSERTED IN VINYL-COVERED THREE-RING LOOSE LEAF BINDER. THIS INFORMATION IN BINDER SHALL BE FIRST SENT TO AND APPROVED BY THE ARCHITECT/ENGINEER BEFORE TURNING OVER TO OWNER.

DEFINITIONS

"FURNISH" OR "PROVIDE" - TO FURNISH, ERECT, INSTALL AND CONNECT UP COMPLETE AND READY FOR OPERATION PARTICULAR WORK REFERRED TO, UNLESS SPECIFICALLY INDICATED OR SPECIFIED OTHERWISE.

"WORK" - LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND ALL OTHER ITEMS CUSTOMARILY FURNISHED AND/OR REQUIRED FOR PROPER AND COMPLETE INSTALLATION OF WORK.

"CONCEALED" - EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED BEHIND WALL FURRING, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES OR IN CRAWL SPACES.

"EXPOSED" - NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.

"INDICATED" OR "SHOWN" - AS INDICATED OR SHOWN ON DRAWINGS OR SPECIFIED WITH SPECIFICATIONS.

"PIPING" - PIPE, FITTINGS, FLANGES, VALVES, CONTROLS, HANGERS, TRAPS, DRAINS, INSULATION AND ITEMS CUSTOMARILY OR REQUIRED IN CONNECTION WITH OR RELATING TO SUCH PIPING.

"SUPPLY" - TO PURCHASE, PROCURE, ACQUIRE AND DELIVER COMPLETE WITH ALL RELATED ITEMS.

"INSTALL" - TO ERECT, MOUNT AND CONNECT UP COMPLETE WITH ALL RELATED ACCESSORIES.

"NOTED" - AS INDICATED ON DRAWINGS AND/OR SPECIFIED.

SLEEVES

PROVIDE NO. 22 USSG GALVANIZED IRON SLEEVES EXTENDED THROUGH CONSTRUCTION IN CEILINGS, WALLS AND PARTITIONS, FOR INSULATED PIPING SIZED TO ALLOW INSULATION TO PASS THROUGH SLEEVE, PROVIDE 1/2 INCH SPACE BETWEEN PIPE AND/OR INSULATION AND SLEEVE. SEAL ALL SLEEVES IN ACCORDANCE WITH BUILDING CODE AND FIRE DEPARTMENT REQUIREMENTS.

EXPANSION ANCHORS

IN ALL AREAS SUSPEND HANGERS FROM STRUCTURAL STEEL ROOF STRUCTURE OR WALL BRACKETS SUPPORTED FROM STEEL COLUMNS. PROVIDE HANGER IN PLACE WITH DOUBLE NUTS, PROVIDE PROTECTION SHIELDS ON INSULATED PIPING, INSTALL HANGERS OVER INSULATION AND SHIELDS.

MECHANICAL SPECIFICATIONS

DISSIMILAR METALS

PROVIDE BRASS OR COPPER WATER PIPING CONNECTED TO GALVANIZED PIPE AND FOR ANY OTHER DISSIMILAR METALS WITH DIELECTRIC FITTINGS. DOMESTIC WATER PIPING

ALL WATER PIPING WITHIN THE BUILDING SHALL BE TYPE "L" COPPER TUBING WITH SWEAT TYPE WROUGHT FITTINGS, AND ALL JOINTS SHALL BE MADE WITH 95-5 SOLDER OR STAY-SAFE BRIDGET LEAD-FREE SOLDER. PROVIDE AIR CUSHIONS OR ZURN-SHOKTROL AT EACH GROUP OF FIXTURES AS INDICATED OR REQUIRED BY GOOD PRACTICE. PROVIDE SECTION CUTOFF VALVES ON ALL MAIN BRANCHES. PITCH AND VALVE ALL WATER PIPING FOR CONVENIENT DRAINAGE. ALL PIPES SHALL BE REAMED TO FULL AREA BEFORE INSTALLATION AND BLOWN CLEAN OF CHIPS AND DIRT. PIPING SHALL BE CONCEALED IN FURRED SPACE OF OCCUPIED AREAS OR CHASES WHEREVER CONSTRUCTION PERMITS. CONTRACTOR SHALL OBTAIN PERMISSION OF THE ARCHITECT TO RUN EXPOSED PIPES NOT SPECIFICALLY SHOWN ON THE DRAWINGS AS EXPOSED. WHERE HORIZONTAL BRANCH PIPE MAINS, BRANCHES, OR RISERS ARE EXPOSED IN FINISHED AREAS, THEY SHALL BE FITTED WITH A TWO PIECE FLOOR AND CEILING PLATE HAVING A DULL SATIN CHROME PLATE FINISH.

INSULATION

INSULATE ALL HOT AND COLD WATER PIPING ABOVE GRADE WITH 1" THICK HEAVY DENSITY FIBERGLASS 25 ASJ WITH VAPOR BARRIER AND LAP ADHESIVE JACKET. INSULATION ON FITTINGS SHALL BE FIBERGLASS WITH PRE-MOLDED JACKET.

INTERIOR WATER VALVES

VALVES SHALL BE BRONZE BALL TYPE, 2 PIECE, FULL PORT APOLLO 3 OR EQUAL.

PROTECTION OF POTABLE WATER SUPPLY

PROTECT POTABLE WATER SUPPLIES AGAINST BACKFLOW, BACK-SIPHONAGE, CROSS CONNECTION, AND OTHER UNSANITARY CONDITIONS. DO NOT DIRECTLY CONNECT POTABLE WATER TO, OR RUN WITHIN, ANY PIPING OR DEVICE CONTAINING OR CONVEYING SEWAGE WASTES, OR OTHER MATERIALS HAZARDOUS TO HEALTH AND SAFETY. EQUIP PLUMBING FIXTURE SUPPLIES, OTHER THAN "OVER-RIM" TYPE, WITH APPROVED VACUUM BREAKERS OR AIR GAP FITTINGS. SUPPLIES EQUIPPED FOR HOSE CONNECTION MUST HAVE INTEGRAL VACUUM BREAKERS.

DISINFECTION OF POTABLE WATER PIPING

COMPLETE AND EFFECTIVE DISINFECTION OF POTABLE WATER PIPING SYSTEMS AFTER TESTING AND ACCEPTANCE. DISINFECT AFTER FLUSHING WITH CLEAR WATER BY FILLING ENTIRE SYSTEM OR ANY PART THEREOF WITH WATER SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF AVAILABLE CHLORINE. ALLOW SOLUTION TO STAND IN SYSTEM AT LEAST 24 HOURS BEFORE FLUSHING OUT WITH CLEAN POTABLE WATER.

IN LIEU OF ABOVE. SWAB WATER CONTACTING SURFACES WITH SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION OF AVAILABLE CHLORINE. ALLOW SOLUTION TO STAND IN SYSTEM FOR AT LEAST THREE HOURS BEFORE FLUSHING OUT WITH CLEAN POTABLE WATER.

SOIL. WASTE AAND VENT PIPING

SHALL BE SCH.40 P.V.C. WITH SOLVENT CEMENT JOINTS. FITTINGS ON SOIL AND WASTE LINES SHALL BE DRAINAGE PATTERN. EXPOSED COUNTER SINK WASTE PIPING SHALL BE CHROME PLATED BRASS, RUN ALL SOIL, WASTE AND VENT PIPING SHOWN OR REQUIRED BY LOCAL CODE, PIPING SHOWN IS MINIMUM AND IN ACCORDANCE WITH STATE AND FEDERAL CODES. IF LOCAL CODES REQUIRE ADDITIONAL VENTING OR LARGER SIZES, SAME SHALL TAKE PRECEDENCE, MAKE ALL CONNECTIONS THROUGH APPROVED TRAPS. EACH TRAP TO BE VENTED, EITHER BY CIRCUIT LOOP OR BY INDIVIDUAL VENT, AS REQUIRED, BUT NOT LESS THAN SHOWN OR AS REQUIRED BY LOCAL CODE. CLEANOUTS SHALL BE INSTALLED AT BASE OF ALL STACKS, AT ALL CHANGES OF DIRECTION, AND IN LONG LINES, IF NECESSARY, TO PROVIDE MEANS OF CLEANING LINES AT MAXIMUM 50 FT. INTERVALS. PITCH HORIZONTAL PIPING 1/4" PER FOOT UNLESS NOTED OTHERWISE ON PLANS.

THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DURING THE PROGRESS OF THE WORK OR UPON ITS COMPLETION AS ORDERED, MAKE SUCH TESTS OF HIS

WORK AS ARE HEREIN SPECIFIED OR AS ARE REQUIRED BY AND IN THE PRESENCE OF THE PLUMBING INSPECTOR. IF SO DIRECTED, TESTS SHALL BE MADE OF SECTIONS FOR THE WORK SO AS NOT TO DELAY THE WORK OF OTHER TRADES. THE CONTRACTOR SHALL PROVIDE ALL APPARATUS, TEMPORARY WORK OR ANY OTHER REQUIREMENTS NECESSARY FOR SUCH TESTS. ANY DEFECTS OR DEFICIENCIES DISCOVERED AS A RESULT OF TESTS SHALL BE IMMEDIATELY REPAIRED AND TESTS SHALL BE REPEATED UNTIL THE TEST REQUIREMENTS ARE FULLY COMPLIED WITH. THE DRAINAGE AND VENT SYSTEMS SHALL BE TESTED IN SECTIONS WHEN REQUIRED TO PERMIT GENERAL CONSTRUCTION WORKS TO PROCEED. THE PIPING SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE CORRESPONDING TO A HEAD OF AT LEAST 10 FEET OF WATER FOR 2 HOURS. ALL WATER PIPING SHALL BE TESTED TO A HYDROSTATIC PRESSURE OF 150 POUNDS PER SQUARE INCH.

HANGER AND SUPPORTING

HANGING AND SUPPORTING - PIPING SHALL NOT BE SUPPORTED BY OTHER PIPING, BUT SHALL BE SUPPORTED WITH COPPER PIPE HANGERS SUITABLE FOR THE SIZE OF PIPE AND PROPER STRENGTH AND QUALITY AT PROPER INTERVALS SO THAT PIPING CANNOT BE MOVED ACCIDENTALLY FROM THE INSTALLED POSITION AS FOLLOWS:

PROVIDE COPPER CLEVIS HANGERS 1/2 INCH PIPE OR TUBING...... 6 FEET

3/4 INCH OR 1 INCH PIPE OR TUBING 8 FEET 1-1/4 INCH OR LARGER (HORIZONTAL) 10 FEET 4 FEET

WHERE PIPING IS REQUIRED TO BE INSULATED - PIPE HANGARS SHALL BE SIZED TO RUN PIPING CONTINUOUS THRU PIPE HANGARS WITH INSULATION. SEISMIC RESTRAINTS

SEISMIC RESTRAINTS DESIGNED AND CONSTRUCTED FOR LATERAL FORCES IN ANY DIRECTION SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE (IBC)

CONFORM LOCATION AND SIZE OF FIXTURES AND OPENINGS BEFORE ROUGH-IN AND INSTALLATION. VERIFY ADJACENT CONSTRUCTION IS READY TO RECEIVE ROUGH-IN WORK OF THIS SECTION.

INSTALLATION

INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING. PROVIDE CHROME PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH LOOSE KEY STOPS REDUCERS, AND ESCUTCHEONS. INSTALL COMPONENTS LEVEL AND PLUMB.

FIXTURES UNDER THIS SECTION

INCLUDED SHALL BE PLUMBING FIXTURES NOTED. ALL TRIM ITEMS AND ALL ACCESSORY ITEMS SHOWN OR REQUIRED FOR A COMPLETE PLUMBING INSTALLATION. "KOHLER" NUMBERS ARE SPECIFIED UNLESS OTHERWISE NOTED. THE FIXTURES SHALL BE COMPLETE WITH CHROME PLATING ON EXPOSED IRON OR PIPE, TRAPS ANCHOR BOLTS, HANGERS, STRAINERS, LOOSE KEY STOP VALVES AT EVERY FIXTURE, FAUCET AND OTHER INCIDENTAL ITEMS FURNISHED AS STANDARD. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL FIXTURES IN ACCORDANCE WITH THE "PLUMBING FIXTURE SCHEDULE" AND SPECIFICATIONS LISTED ON CONTRACT DRAWINGS.

CLEANING AND ADJUSTING

AS DIRECTED, CLEAN FIXTURES, EQUIPMENT, PIPING AND OTHER EXPOSED WORK. DO CLEANING WORK IN STAGES IF SO ORDERED BY ARCHITECT TO FACILITATE WORK OF OTHERS. SHOW TRAPS, WASTES AND SUPPLIES FREE AND UNOBSTRUCTED. PLATED, POLISHED, BRONZED, OR PAINTED WORK, BRIGHT AND CLEAN. FLUSH OUT PIPING AFTER INSTALLATION. ADJUST VALVES, FAUCETS, AUTOMATIC CONTROL DEVICES FOR PROPER AND QUIET OPERATION

DUCT INSTALLATION

SIZES AND APPROXIMATE LOCATION OF ALL DUCTS ARE SHOWN ON THE CONTRACT DRAWINGS. CHECK CAREFULLY WITH ALL ARCHITECTURAL DRAWINGS AND DRAWINGS SHOWING WORK OF OTHER TRADES TO MAKE SURE THAT THERE WILL BE NO CONFLICT BETWEEN THESE TRADES AND THE NEW DUCTWORK. DUCTS SHALL BE OFFSET AS REQUIRED TO CLEAR STRUCTURAL MEMBERS, AND, IF NECESSARY, TO ALTER DIMENSIONS OF THE DUCT. THIS MAY BE DONE PROVIDED THE CROSS-SECTIONAL AREA IS IN NO CASE REDUCED.

SHEET METAL DUCTWORK

ALL DUCTWORK SHALL BE CONSTRUCTED OF #1 QUALITY FIRST SHEETS OF GALVANIZED STEEL, FREE OF CRACKS OR BLEMISHES. WHEN PITTSBURGING OR SNAP LOCKING A JOINT, THE GALVANIZING SHALL NÖT BE CHIPPED OFF.

ALL PARTS OF THE SHEET METAL DUCT SYSTEM SHALL BE CONSTRUCTED AND INSTALLED IN STRICT ACCORDANCE WITH THE LATEST APPLICABLE EDITION OF SMACNA FOR PRESSURES 2 IN W.G. MAXIMUM STATIC PRESSURE.

DUCT INSULATION

COVER ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK WITH MINIMUM 2" FIBERGLASS DUCT WRAP EQUAL TO MANVILLE R-SERIES MICROLITE WITH F.R.G. VAPOR BARRIER. DUCT INSULATION SHALL HAVE A MINIMUM R-VALUE OF R8. SEISMIC RESTRAINT FOR DUCTWORK

PROVIDE REQUIRED BRACING MATERIAL. DUCTWORK SHALL BE SUPPORTED AND BRACED TO RESIST ALL DIRECTIONAL (TRANSVERSE, LONGITUDINAL AND VERTICAL) FORCES EQUAL TO 10 PERCENT OF THE WEIGHT OF THE DUCT SYSTEM. VOLUME DAMPERS

SINGLE BLADE OR OPPOSED BLADE MULTI-LOUVER TYPE AS DETAILED IN SMACNA STANDARDS, FIGURES 2-11 AND 2-12. PROVIDE END BEARING FOR ALL DAMPERS. QUADRANT OR OTHER OPERATOR FOR EXTERNALLY INSULATED DUCT SHALL HAVE STAND-OFF MOUNT SO OPERATION IS CLEAR OF THE INSULATION. PROVIDE A VOLUME DAMPER IN BRANCH DUCTS FOR EACH SUPPLY DIFFUSER OR GRILLE.

FLEXIBLE CONNECTIONS

SHALL BE 29 OZ. NEOPRENE COATED FIBERGLASS, 6" WIDE. BURNING PROPERTIES SHALL CONFORM TO NFPA 90A. FASTEN TO DUCTWORK PER MANUFACTURER'S RECOMMENDATIONS. FABRIC SHALL NOT BE STRESSED OTHER THAN BY AIR PRESSURE, ALLOW AT LEAST ONE INCH SLACK TO INSURE THAT NO VIBRATION IS TRANSMITTED.

TEST AND BALANCE

COMPLETELY TEST AND BALANCE ALL SUPPLY AIR, RETURN AIR, INCLUDING EXISTING TOILET EXHAUST AIR SYSTEM, AND ALL NEW HVAC EQUIPMENT, AND PROVE THE CAPACITIES OF THE SYSTEM AND THE SYSTEM COMPONENTS. SUBMIT RESULTS IN WRITING TO ENGINEER FOR APPROVAL. BALANCING SHALL BE PERFORMED BY AN INDEPENDENT AABC OR NEBB MEMBER.

AUTOMATIC TEMPERATURE CONTROLS

THE EXISTING TEMPERATURE CONTROLS SHALL REMAIN FOR ALL RTU'S EXCEPT RTU-2. FOR RTU-2 A NEW THERMOSTAT AND ALL LOW VOLTAGE WIRING SHALL BE CHANGED FROM THE NEW RTU-2 TO THE THERMOSTAT ON THE GROUND FLOOR. FOR ALL OTHER RTU'S AS MUCH OF THE EXISTING CONTROLS AS POSSIBLE SHALL BE UTILIZED AND TIED INTO THE NEW RESPECTIVE RTU. MECHANICAL CONTRACTOR SHALL INSPECT AND REPLACE ALL THERMOSTATS WITH DIGITAL TYPE PROGRAMMABLE THERMOSTATS. ALL LINE-VOLTAGE AND LOW-VOLTAGE CONTROL WIRING AND CONDUIT SHALL BE PROVIDED AND INSTALLED BY HVAC CONTRACTOR. ANY NEW CONTROLS THAT ARE ADDED TO HANDLE NEW EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING BUILDING CONTROLS AND SHALL BE INTERFACED WITH THE EXISTING BMS.

GENERAL NOTES

- DRAWINGS.

- WHERE EXISTING PIPING IS TO REMAIN ACTIVE IN WALLS BEING DEMOLISHED, IT SHALL BE REMOVED AND REROUTED AS PART OF THIS CONTRACT AND CONNECTED IN FULL OPERATING ORDER.
- 9. RUN ALL NEW PIPING CONCEALED UNLESS OTHERWISE NOTED

PLEASE NOTE:

1. THIS PROJECT CONSISTS OF MODIFICATIONS AND ALTERATIONS BEFORE SUBMITTING HIS BID, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS UNDER WHICH HIS WORK WILL BE INSTALLED. THIS CONTRACT INCLUDES ALL NECESSARY OFFSET. TRANSITIONS AND MODIFICATIONS REQUIRED TO INSTALL ALL NEW EQUIPMENT IN NEW OR EXISTING SPACES. ALSO INCLUDED SHALL BE ANY MODIFICATIONS NECESSARY TO EXISTING EQUIPMENT. PIPING OR SYSTEMS FOR INSTALLATION OF NEW EQUIPMENT BY THIS OR ANY OTHER TRADE. ALL NEW AND EXISTING EQUIPMENT AND SYSTEMS SHALL BE FULLY OPERATIONAL UNDER THIS CONTRACT BEFORE THE JOB IS CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS HE MAKES. ANY OMISSIONS OR ERRORS HE MAKES AS A RESULT OF HIS FAILURE WITH THE EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS OF ALL

2. LOCATION OF ALL EXISTING PIPING AND DUCTWORK SHOWN ON FLOOR PLANS ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING PIPING AND DUCTWORK IN THE FIELD.

3. IT IS NOT THE INTENT OF THIS DRAWING TO SHOW ENTIRE EXISTING EQUIPMENT LAYOUT AND PIPING. THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND FIXTURES AS SHOWN OR NOTED ON DRAWINGS AND ALSO ALL EQUIPMENT AND FIXTURES NOT BEING REUSED. THE CONTRACTOR SHALL REMOVE ALL PIPING ASSOCIATED WITH EQUIPMENT AND FIXTURES BEING REMOVED AND CAP PIPES AT REMAINING ACTIVE MAINS UNLESS OTHERWISE INDICATED. FULL EXTENT OF DEMOLITION SHALL BE DETERMINED BY THE CONTRACTOR DURING HIS SITE

4. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS OF ALL EQUIPMENT MUST BE TAKEN FROM FINAL ARCHITECTURAL DETAILED

5. ALL OPENINGS AROUND PIPING PASSING THROUGH WALLS OR PARTITIONS MUST BE PACKED WITH FIBERGLASS AND SEALED. SEALANT SHALL ALLOW FOR MOVEMENT WITHOUT CRACKING AND SHALL BE '3M' CP 25S/L SELF-LEVELING INTUMESCENT CAULK.

6. DISCONNECT AND REMOVE ALL HOT. COLD. SOIL. WASTE AND VENT PIPING CALLED FOR IN THE CONTRACT AREA EXCEPT FOR THAT PIPING THAT MUST BE MAINTAINED IN SERVICE FOR CONNECTION TO NEW SYSTEMS OR FIXTURES.

8. INSULATE TRAP, WASTE PIPING AND SUPPLIES BELOW ALL ACCESSIBLE LAVATORIES, COUNTER SINKS AND DRINKING FOUNTAINS WITH 'HANDI-LAV-GUARD' PRE-FORMED INSULATING KIT.

THE BASE BID SHALL INCLUDE THE REPLACEMENT OF RTU-1,2,3,4,5,6,7. THE ALTERNATE BID SHALL INCLUDE THE REPLACEMENT OF RTU-8, 9, 10, 11 & 12.

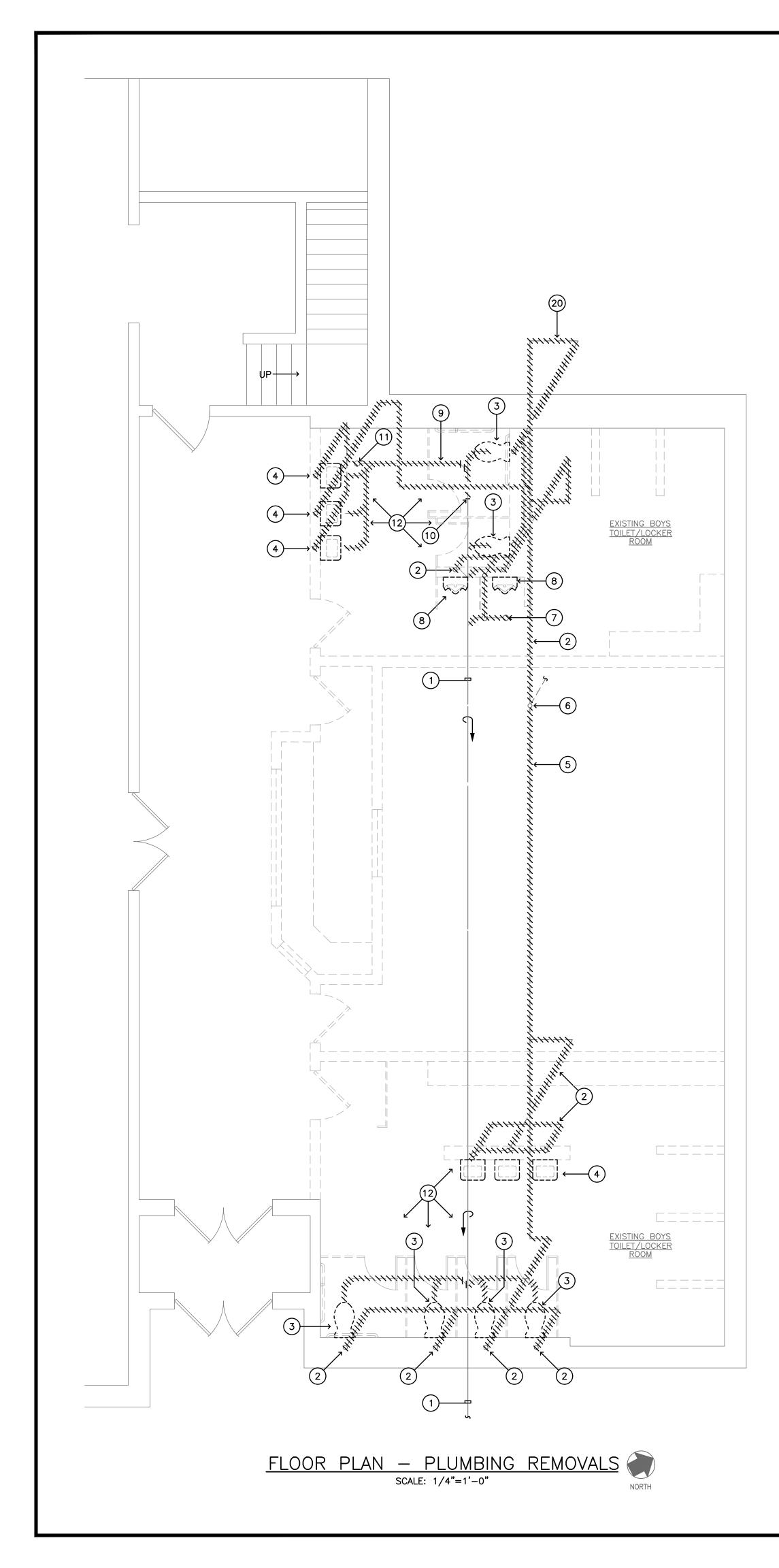
MECHANICAL DRAWING LIST			
M-1	MECHANICAL SPECIFICATIONS		
P-1	FLOOR PLANS - PLUMBING REMOVALS & HOT AND COLD WATER PIPING		
P-2	FLOOR PLAN - PLUMBING - SOIL, WASTE AND VENT PIPING & FIXTURE SPECIFICATIONS		
HVAC-1	PARTIAL FLOOR PLANS - HVAC		
HVAC-2	PARTIAL FIRST FLOOR PLANS AND SCHEDULES - HVAC		
HVAC-3	ROOF PLAN - HVAC		

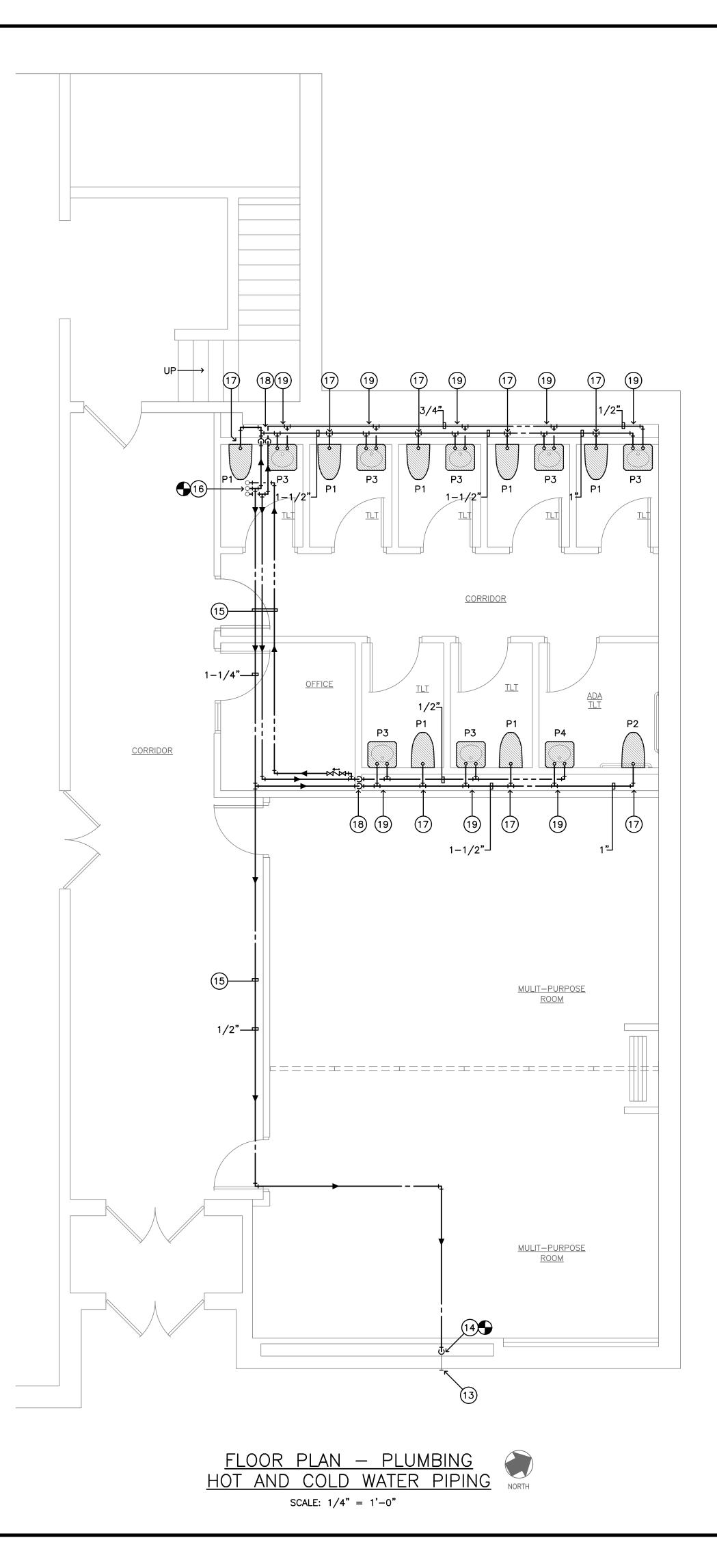
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SCALE: NONE DRAWING NO.	DRAWN BY: BJC	REVIEWED BY: BJC

GD&D JOB NUMBEI

23711

2 JANUARY 2024





<u>LEGEND – DRAWING P-1</u>

 APPROXIMATE LOCATION OF EXISTING 6" SANITARY LINE BELOW CONCRETE FLOOR TO REMAIN.
 EXISTING VENT PIPING IN WALL TO BE REMOVED COMPLETELY.
 EXISTING VENT PIPING IN WALL TO BE REMOVED COMPLETELY.
 EXISTING WATER CLOSET TRIM AND PIPING TO BE REMOVED.
 EXISTING LAVATORY, TRIM, ACCESSORIES AND PIPING TO BE REMOVED.
 EXISTING 2" VENT PIPING AT CEILING TO BE REMOVED COMPLETELY.
 EXISTING 3" VENT PIPING RUNNING UP TO FLOOR ABOVE REMAIN FOR CONNECTION OF NEW VENT PIPING.
 EXISTING FLOOR DRAIN AND ALL PIPING UP TO EXISTING SANITARY TO BE REMOVED AND CAPPED.
 EXISTING URINAL, VALVE AND PIPING TO BE REMOVED.
 EXISTING SANITARY/WASTE PIPING TO BE REMOVED AND CAPPED BACK TO SANITARY MAIN AS SHOWN ON DRAWING.
 EXISTING 4" SANITARY MAIN TO REMAIN FROM THIS POINT.
 EXISTING FLUSH FLOOR CLEANOUT AND PIPING TO BE REMOVED BACK TO SANITARY MAIN.
 ALL EXISTING HOT, COLD AND RECIRC. HOT WATER PIPING IN BASEMENT (NOT SHOWN) TO BE REMOVED BACK TO RISERS, SEE CIRCLE NOTE 16.
 EXISTING HOSE BIBB TO REMAIN.
 NEW 1/2" COLD WATER DOWN IN CHASE, CONNECT TO EXISTING HOSE BIBB.

(15) RUN PIPING ABOVE NEW CEILING PLAN.

(16) EXISTING 1-1/2" COLD WATER, 1-1/4" HOT WATER AND 3/4" RECIRC. HOT WATER RISERS TO REMAIN. CONNECT NEW WATER PIPING TO THIS POINT.

(17) CONNECT NEW 1" COLD WATER TO WALL HUNG WATER CLOSET.

(18) 1–1/2" COLD WATER AND 3/4" HOT WATER DOWN IN CHASE.

(19) 1/2" HOT AND COLD WATER TO LAVATORY.

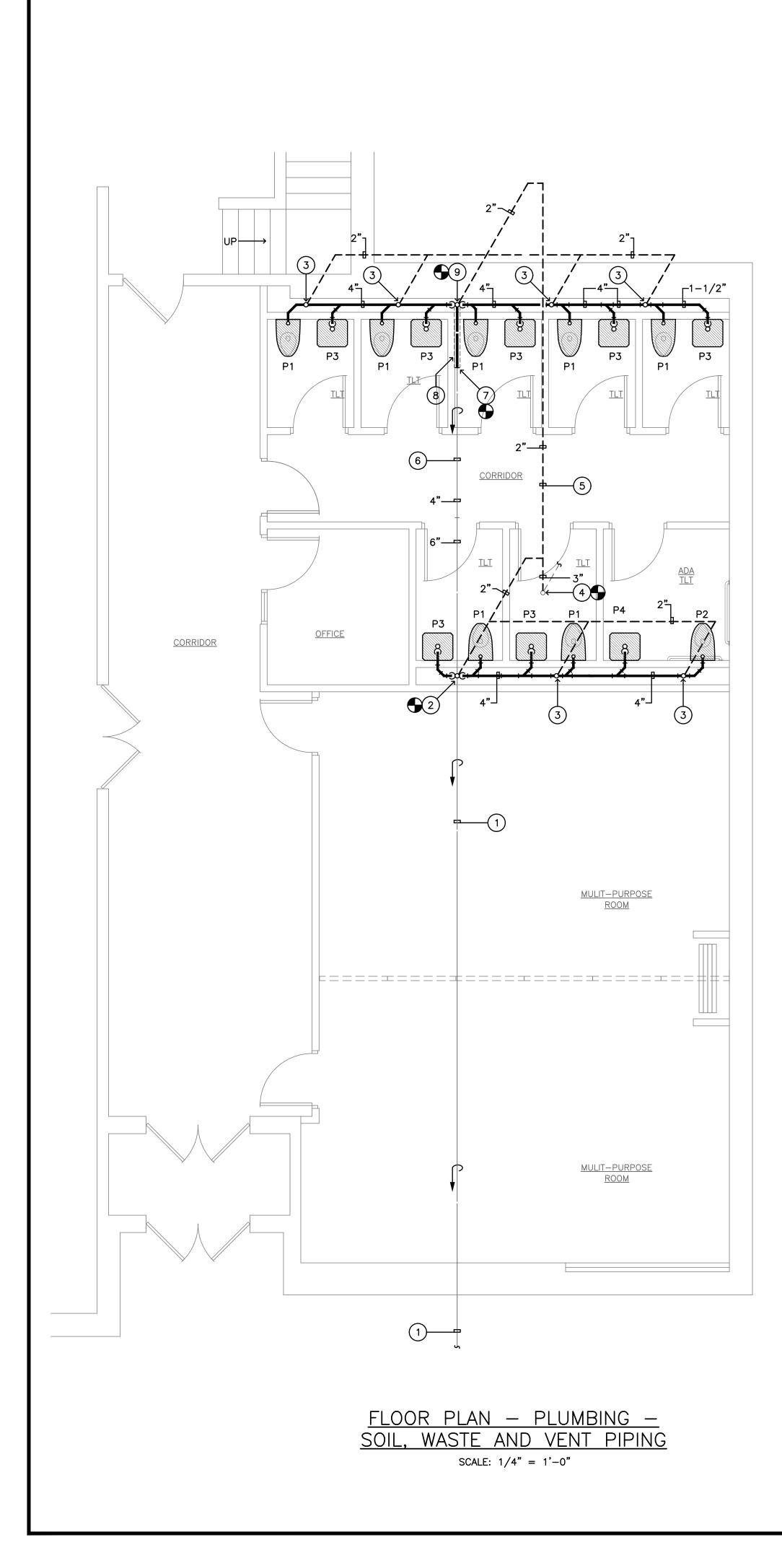
(20) SYMBOL ****** INDICATES EXISTING PIPING TO BE REMOVED.

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	P_1	

GD&D JOB NUMBER:

23711

12 JANUARY 2024



<u>LEGEND – DRAWING P–2</u>

- 1 APPROXIMATE LOCATION OF EXISTING 6" SANITARY LINE BELOW CONCRETE FLOOR.
- 2 4" SANITARY DOWN AND 2" VENT UP
- 3 2" VENT UP.
- 4 CONNECT NEW 3" VENT TO EXISTING ABOVE CEILING.
- 5 RUN PIPING ABOVE CEILING.
- (6) APPROXIMATE LOCATION OF EXISTING 4" SANITARY LINE BELOW FLOOR.
- 7 CONNECT NEW 4" SANITARY TO EXISTING. CONTRACTOR MUST VERIFY IN FIELD EXACT LOCATION AND INVERT OF EXISTING SANITARY LINE BEFORE ANY NEW PIPING IS RUN.
- 8 NEW 4" SANITARY PIPING SYMBOL **E**INDICATES NEW SANITARY PIPING BRLOW FLOOR.

HOT WATER LINE RECIRC. HOT WA VENT PIPING SANITARY/ WAST BALL VALVE CHECK VALVE FLOW DIRECTION	NEW PLU	MBING SYMB
RECIRC. HOT WA RECIRC. HOT WA VENT PIPING SANITARY/ WAST BALL VALVE CHECK VALVE FLOW DIRECTION		COLD WATER LIN
VENT PIPING SANITARY/ WAST BALL VALVE CHECK VALVE FLOW DIRECTION		HOT WATER LINE
SANITARY/ WAST		RECIRC. HOT WAT
BALL VALVE BALL VALVE CHECK VALVE FLOW DIRECTION		VENT PIPING
CHECK VALVE		SANITARY/ WASTE
FLOW DIRECTION		BALL VALVE
	Ź ;	CHECK VALVE
	→	FLOW DIRECTION
	$\bullet \rightarrow$	POINT OF CONNE
	\frown	PITCH DIRECTION
NEW PLUMBING		NEW PLUMBING
		EXISTING PLUMBI FIXTURE TO BE

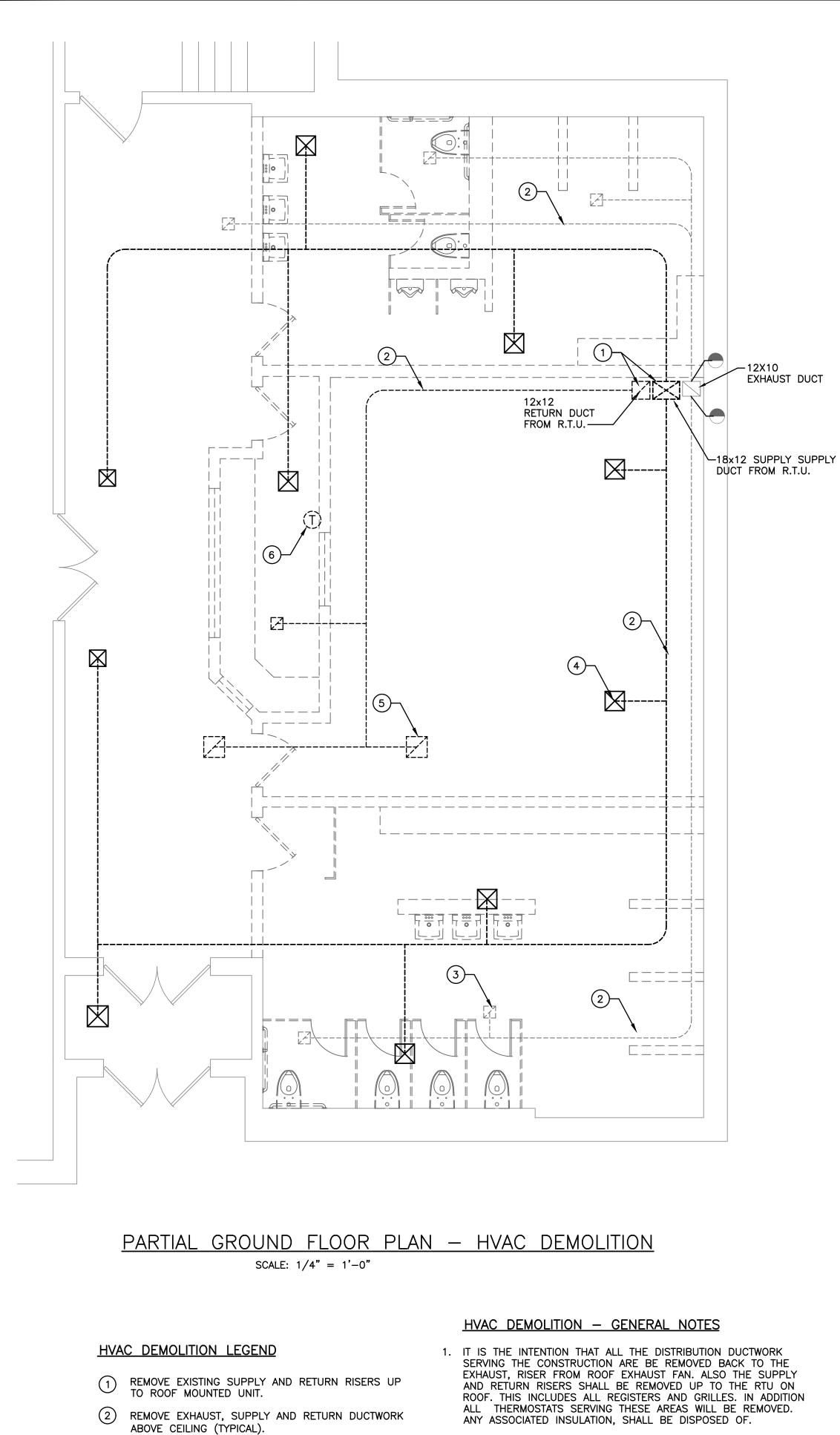
	PLUMBING FIXTURE CONNECTION SCHEDULE					
SYMBOL	DESCRIPTION	WASTE	VENT	НОТ	COLD	REMARKS
P1	WATER CLOSET	4"	2"	_	1"	WATER SAVING FIXTURE
P2	WATER CLOSET - ADA	4"	2"	_	1"	ADA COMPLIANT
P3	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	WATER SAVING FIXTURE
P4	LAVATORY – ADA	1-1/2"	1-1/2"	1/2"	1/2"	ADA COMPLIANT
	UNLESS NOTED OTHERWISE					

SYMBOL	FIXTURE TYPE	FIXTURE SPECIFICATIONS	COMMENT
P1	WATER CLOSET WALL HUNG	WATER CLOSET SHALL BE "KOHLER" KINGSTON MODEL $\#$ K-4325 WALL HUNG, WHITE VITREOUS CHINA, WITH ELONGATED BOWL AND WHITE "KOHLER" STRONGHOLD COMMERCIAL TOILET SEAT $\#$ K-4731-C. FLUSH VALVE SHALL BE SLOAN ROYAL MODEL $\#$ 111-1.28. CARRIER SHALL BE ZURN ADJUSTABLE VERTICAL MODEL $\#$ 1200 SERIES.	WALL HUNG WATER SAVI WITH 1.28 G.P
P2	WATER CLOSET WALL HUNG ADA ACCESSIBLE	WATER CLOSET SHALL BE "KOHLER" KINGSTON MODEL $\#$ K-4325 WALL HUNG, WHITE VITREOUS CHINA, WITH ELONGATED BOWL AND WHITE "KOHLER" STRONGHOLD COMMERCIAL TOILET SEAT $\#$ K-4731-C. FLUSH VALVE SHALL BE SLOAN ROYAL MODEL $\#$ 111-1.28. CARRIER SHALL BE ZURN ADJUSTABLE VERTICAL MODEL $\#$ 1200 SERIES. PROVIDE LEFT OR RIGHT TRIP LEVER AS REQUIRED.	WALL HUNG WATER SAVI SET AT PROPER ADA
P3	LAVATORY WALL HUNG	LAVATORY SHALL BE "KOHLER" GREENWICH MODEL $\#$ K-2032 20" × 18" WALL MOUNTED WITH 4" FAUCET CENTERS. FAUCET SHALL BE "SYMMONS" SYMMETREX #S-20-G-FR-VP-W. SUPPLIES SHALL BE FLEXIBLE WITH STOPS. TRAP SHALL BE SEMI-CAST CHROME PLATED. LAVATORY SHALL BE SUPPORTED ON "ZURN" CONCEALED ARM CARRIER $\#$ 1231.	WALL HUNG WATER SAVI
P4	LAVATORY WALL HUNG ADA ACCESSIBLE	LAVATORY SHALL BE "KOHLER" GREENWICH MODEL $\#$ K-2032 20" x 18" WALL MOUNTED WITH 4" FAUCET CENTERS. FAUCET SHALL BE "SYMMONS" SYMMETREX #S-20-G-FR-VP-W. SUPPLIES SHALL BE FLEXIBLE WITH STOPS. TRAP SHALL BE SEMI-CAST CHROME PLATED. INSULATE TRAP AND SUPPLIES BELOW LAVATORY WITH "HANDI LAV-GUARD" PRE-FORMED INSULATING KIT AS MANUFACTURED BY TRU BRO. INC. SET LAV AT PROPER HEIGHT FOR HANDICAP. LAVATORY SHALL BE SUPPORTED ON "ZURN" CONCEALED ARM CARRIER #1231.	WALL HUNG WATER SAVI SET AT PROPER ADA

FIXTURE NOTES:

- 1. NCLUDED SHALL BE PLUMBING FIXTURES NOTED, ALL TRIM ITEMS AND ALL ACCESSORY ITEMS SHOWN OR REQUIRED FOR A COMPLETE INSTALLATION. NOTED OTHERWISE.
- 2. THE FIXTURES SHALL BE COMPLETE WITH CHROME PLATING ON EXPOSED IRON OR PIPE, TRAPS, ANCHOR BOLTS, HANGERS, STRAINERS, LOOSE KEY AT EVERY FIXTURE, FAUCET AND OTHER INCIDENTAL ITEMS FURNISHED AS STANDARD.
- 3. ALL FIXTURES ARE TO BE FIRST QUALITY, FREE OF CRACKS, BLEMISHES, OR OTHER IMPERFECTIONS AND TO BE "ACID RESISTING" QUALITY. SET AND CONNECT ALL FIXTURES WITH HOT AND COLD WATER, VENT AND DRAINAGE PIPING AND OTHER SERVICES AS REQUIRED AND PROTECT FIXTURES UNTIL ACCEPTANCE AND TEST.
- 4. THE PLUMBING CONTRACTOR SHALL FURNISH, SET AND CONNECT ALL FIXTURES AND ACCESSORIES SHOWN AND SPECIFIED TO FULLY COMPLETE THE INSTALLATION.

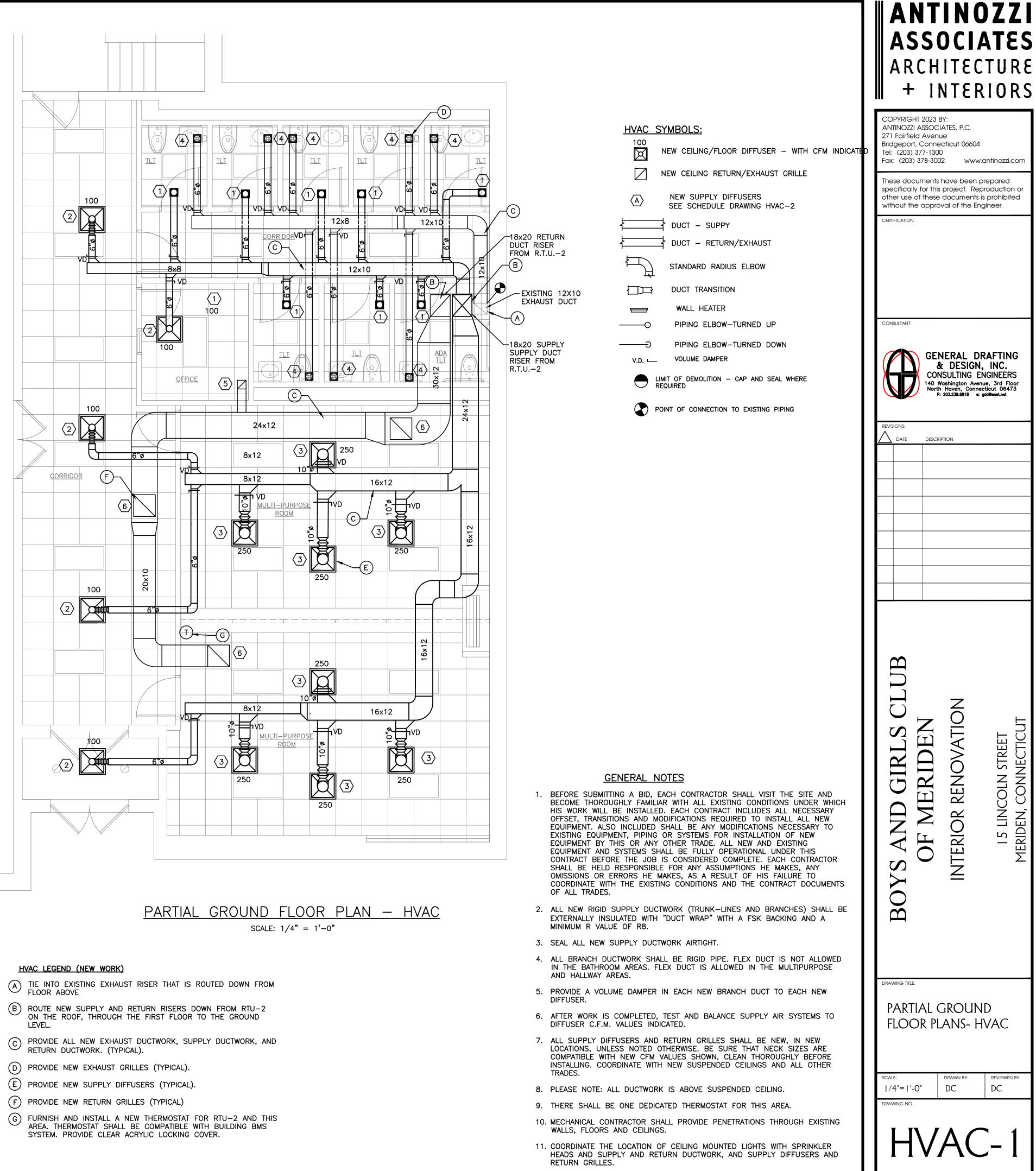
	ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORSCOPYRIGHT 2023 BY: ANTINOZZI ASSOCIATES, P.C. 271 Fairfield Avenue Bridgeport, Connecticut 06604 Tei: (203) 377-1300 Fax: (203) 378-3002
BOLS NE E ATER TE PIPNG N ECTION N DOWN FIXTURE BING REMOVED	<text><text><section-header><image/></section-header></text></text>
NTS SAVING FIXTURE SAVING FIXTURE SAVING FIXTURE SAVING FIXTURE	BOYS AND GIRLS CLUB OF MERIDEN INTERIOR RENOVATION 15 LINCOLN STREET MERIDEN, CONNECTICUT
I. UNLESS Y STOP VALVES D PROPERLY TIL FINAL E PLUMBING	DRAWING TITLE: FLOOR PLAN - PLUMBING - SOIL, WASTE AND VENT PIPING & FIXTURE SPECIFICAATIONS SCALE: 1/4"=1'-0" DRAWN BY: BIC BIC DRAWING NO. PAGE GRAD JOB NUMBER: 12 JANUARY 2024 237 11



2. RTU-2 SERVES THIS AREA. IT WILL BE REPLACED SEE DRAWING

HVAC-3.

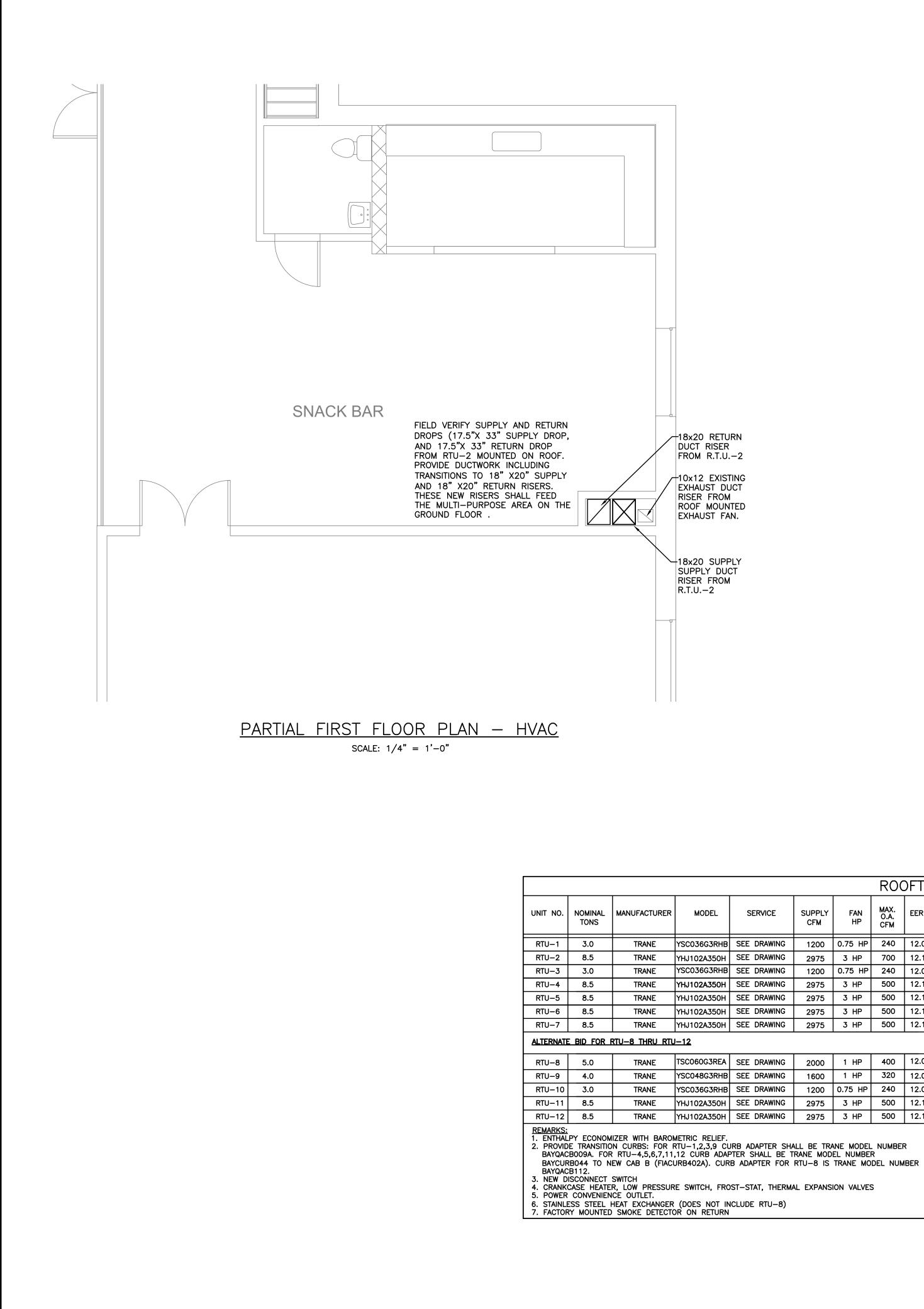
- 3 REMOVE EXISTING EXHAUST GRILLE (TYPICAL)
- (4) REMOVE EXISTING SUPPLY DIFFUSERS(TYPICAL)
- 5 REMOVE EXISTING RETURN GRILLES (TYPICAL)
- (6)REMOVE THERMOSTAT TO RTU-2 ON THE ROOF.



12. EF-1, E	F-2	SHALL	ΒE	INTERLOCJKED	WITH	THEIR	RESPECTIVE	HEAT	PUM
(HP-21	AND	HP-2	2A).						

GD&D JOB NUMBER 23711

12 JANUARY 2024



DIFFUSER/GRILLE SCHEDULE							
SYMBOL	MAKE	MODEL	TYPE	FACE SIZE	NECK OR INLET SIZE	OPTIONS	
$\langle 1 \rangle$	TITUS	TDCA-AA	SUPPLY SQUARE DIFFUSER	6"×6"	SAME AS BRANCH DUCT (6"ø)	BORDER TYPE 3	
2	TITUS	TDCA-AA	SUPPLY SQUARE DIFFUSER	6" x 6" WITH 24"x 24" MODULE	SAME AS BRANCH DUCT (8"ø)	BORDER TYPE 3	
3	TITUS	TDCA-AA	SUPPLY SQUARE DIFFUSER	10" x 10" WITH 24"x 24" MODULE	SAME AS BRANCH DUCT (10 [°] ø)	BORDER TYPE 3	
4	TITUS	50FF	RETURN GRILLE	6"×6"	PROVIDE MOUNTING BOX	BORDER TYPE 1	
(5)	TITUS	50FF	RETURN GRILLE	8" × 8"	PROVIDE MOUNTING BOX	BORDER TYPE 1	
6	TITUS	50FF	RETURN GRILLE	20" x 20" WITH 24"x 24" MODULE	PROVIDE MOUNTING BOX	BORDER TYPE 3	
PLE	ASE NOTE:	PLEASE NOTE: ALL DIFFUSERS, RETURN GRILLES AND EXHAUST GRILLES SHALL BE ALUMINUM.					

				ROC	OFTO	DP PA	CKAGE	D GAS/	<i>ELECTRIC</i>	UNIT SC	HEDULE	E — (F	RTU-8 IS	C00	LING
							HEATING	(NATURAL GAS)		COOLING					
MODEL	SERVICE	SUPPLY	FAN HP	MAX. O.A.	EER	IEER/SEER	INPUT	OUTPUT	GROSS TOTAL	NET TOTAL	REFRIG.	EAT	LAT	PACKAGE	D UNIT
		CFM	HP	CFM			(MBH)	(MBH)	CLG (MBH)	CLG (MBH)	TYPE	(DB/WB)	(DB/WB)	MCA	MOP
YSC036G3RHB	SEE DRAWING	1200	0.75 HP	240	12.0	14.0	120.0	97.20	37.00	36.16	R-410	80.0/67.0	58.84/57.84	20.0	30.0
YHJ102A350H	SEE DRAWING	2975	3 HP	700	12.1	16.6	200.0	162.0	104.02	102.00	R-410	80.0/67.0	58.63/57.58	48.0	60.0
YSC036G3RHB	SEE DRAWING	1200	0.75 HP	240	12.0	14.0	120.0	97.20	37.00	36.16	R-410	80.0/67.0	58.84/57.84	20.0	30.0
YHJ102A350H	SEE DRAWING	2975	3 HP	500	12.1	16.6	200.0	162.0	104.02	102.00	R-410	80.0/67.0	57.55/56.04	48.0	60.0
YHJ102A350H	SEE DRAWING	2975	3 HP	500	12.1	16.6	200.0	162.0	104.02	102.00	R-410	80.0/67.0	57.55/56.04	48.0	60.0
YHJ102A350H	SEE DRAWING	2975	3 HP	500	12.1	16.6	200.0	162.0	104.02	102.00	R-410	80.0/67.0	57.55/56.04	48.0	60.0
YHJ102A350H	SEE DRAWING	2975	3 HP	500	12.1	16.6	200.0	162.0	104.02	102.00	R-410	80.0/67.0	57.55/56.04	48.0	60.0
<u>I–12</u>															
TSC060G3REA	SEE DRAWING	2000	1 HP	400	12.0	14.0	ELEC. HT.	40.98	59.97	58.50	R-410	80.0/67.0	59.00/58.12	41.0	45.0

 TSC060G3REA
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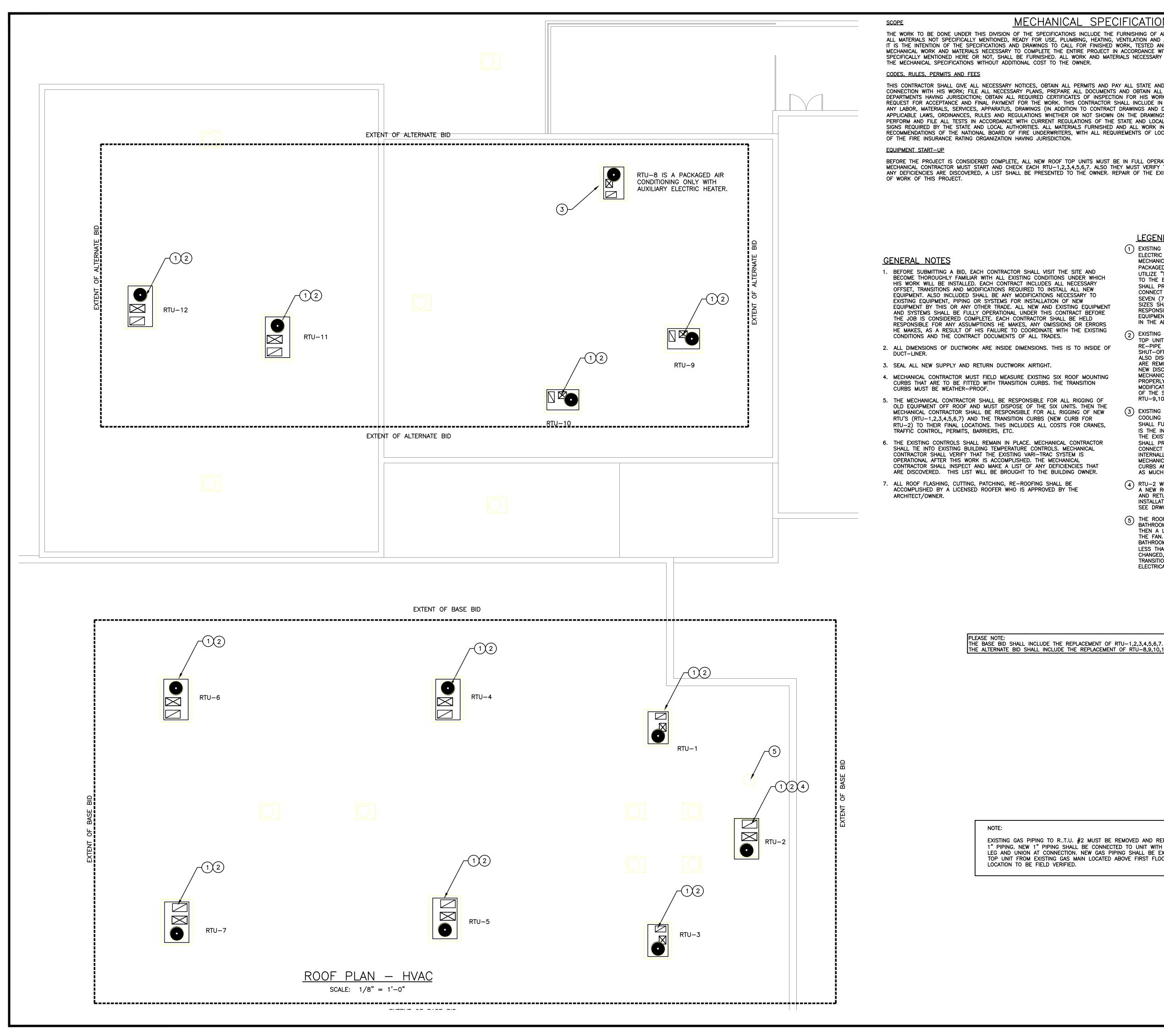
 YSC048G3RHB
 SEE
 DRAWING
 1600
 1
 HP
 320
 12.0
 14.0
 130.0
 105.30
 48.89
 58.50 R-410 80.0/67.0 59.00/58.12 41.0 45.0 47.67 R-410 80.0/67.0 58.63/57.58 26.0 35.0 37.00 TRANE YSC036G3RHB SEE DRAWING 1200 0.75 HP 240 12.0 14.0 120.0 97.20 36.16 R-410 80.0/67.0 58.84/57.84 20.0 30.0 TRANE YHJ102A350H SEE DRAWING 2975 3 HP 500 12.1 16.6 200.0 R-410 80.0/67.0 57.55/56.04 48.0 60.0 162.0 104.02 102.00 TRANE YHJ102A350H SEE DRAWING 2975 3 HP 500 12.1 16.6 200.0 162.0 104.02 102.00 R-410 80.0/67.0 57.55/56.04 48.0 60.0

8. INSULATED DRAIN PAN. 9. DOWN-FLOW DISCHARGE

10. CONDENSATE "P" TRAP PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. 11. EACH RTU-1 THRU 12 SHALL EACH HAVE A PROGRAMMABLE ZONE SENSOR. 12. ELECTRIC HEATER FOR RTU-8 ONLY IS TRANE MODEL NUMBER BAYQACB012ABAYQACB112A.

E	LECTRICAL VOLTAGE	PHASE	HERTZ	CONTROL VOLTAGE	OPERATG. WEIGHT	REMARKS
	208/230	3	60	24	747 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
	208/230	3	60	24	747 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
		_				
	208/230	3	60	24	732 LBS.	1 THRU – 12
	208/230	3	60	24	767 LBS.	1 THRU – 11
	208/230	3	60	24	747 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11
	208/230	3	60	24	1062 LBS.	1 THRU – 11

ANTINOZZ ASSOCIATES ARCHITECTURS + INTERIORS	S E
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CONSULTANT: GENERAL DRAFTING & DESIGN, INC. CONSULTING ENGINEERS 140 Washington Avenue, 3rd Floor North Haven, Connecticut 06473 P: 203.239.6818 e: gdd@snet.net	
BOYS AND GIRLS CLUB OF MERIDEN INTERIOR RENOVATION 15 LINCOLN STREET MERIDEN. CONNECTICUT	
DRAWING TITLE: PARTIAL FIRST FLOOR PLANS AND SCHEDULES - HVAC	
SCALE: 1/4"=1'-0" DC DC DC DRAWING NO. DRAWING NO.	_



MECHANICAL SPECIFICATIONS

THE WORK TO BE DONE UNDER THIS DIVISION OF THE SPECIFICATIONS INCLUDE THE FURNISHING OF ALL EQUIPMENT, SUPPLIES, LABOR, SUPERVISION AND ALL MATERIALS NOT SPECIFICALLY MENTIONED, READY FOR USE, PLUMBING, HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT AND ASSOCIATED ITEMS. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. IT IS THE INTENT THAT ALL MECHANICAL WORK AND MATERIALS NECESSARY TO COMPLETE THE ENTIRE PROJECT IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS, WHERE SPECIFICALLY MENTIONED HERE OR NOT, SHALL BE FURNISHED. ALL WORK AND MATERIALS NECESSARY TO FULFILL THIS INTENT SHALL BE SUPPLIED UNDER

THIS CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL STATE AND LOCAL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL STATE AND LOCAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVERY OF SAME TO THE OWNER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. THIS CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS WHETHER OR NOT SHOWN ON THE DRAWINGS AND/OR SPECIFIED. THIS CONTRACTOR SHALL PERFORM AND FILE ALL TESTS IN ACCORDANCE WITH CURRENT REGULATIONS OF THE STATE AND LOCAL AUTHORITIES. HE SHALL FURNISH AND INSTALL ALL SIGNS REQUIRED BY THE STATE AND LOCAL AUTHORITIES. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH ALL RULES AND RECOMMENDATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, WITH ALL REQUIREMENTS OF LOCAL UTILITIES COMPANIES, WITH THE RECOMMENDATIONS

BEFORE THE PROJECT IS CONSIDERED COMPLETE, ALL NEW ROOF TOP UNITS MUST BE IN FULL OPERATING ORDER AND TESTED FOR CAPACITIES. MECHANICAL CONTRACTOR MUST START AND CHECK EACH RTU-1,2,3,4,5,6,7. ALSO THEY MUST VERIFY THAT THE EXISTING CONTROLS ARE OPERATIONAL. IF ANY DEFICIENCIES ARE DISCOVERED, A LIST SHALL BE PRESENTED TO THE OWNER. REPAIR OF THE EXISTING CONTROL SYSTEM IS NOT PART OF THE SCOPE

<u>LEGEND</u>

- (1) EXISTING SEVEN(7) ROOF MOUNTED PACKAGED GAS-FIRED HEATING, ELECTRIC (DIRECT EXPANSION (DX)) COOLING UNITS SHALL BE REMOVED. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL SEVEN NEW PACKAGED ROOFTOP UNITS (RTU-1,2,3,4,5,6,7). IT IS THE INTENTION TO UTILIZE "TRANSITION CURBS" (NEW CURB FOR RTU-2) THAT WILL CONNECT TO THE EXISTING ROOF MOUNTING CURBS. THE MECHANICAL CONTRACTOR SHALL PROVIDE NEW SUPPLY AND RETURN SHEET-METAL "DROPS" AND CONNECT TO EXISTING DISTRIBUTION DUCTWORK. THIS WILL OCCUR IN SEVEN (7) PLACES. THESE DUCTS SHALL BE INTERNALLY INSULATED. DUCT SIZES SHALL BE CLEAR INSIDE DIMENSION. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR RIGGING ROOF TRANSITION CURBS AND ROOF MOUNTED EQUIPMENT TO THEIR FINAL LOCATION. THIS NOTE PERTAINS RTU-9,10,11,12 IN THE ALTERNATE BID.
- 2 EXISTING GAS LINE UP THROUGH ROOF, DISCONNECT FROM EXISTING ROOF TOP UNIT (RTU-1.2.3.4.5.6.7) TO BE REMOVED. MODIFY AS REQUIRED AND RE-PIPE TO NEW ROOF TOP UNITS IN SAME LOCATION. PROVIDE NEW GAS SHUT-OFF VALVE, UNION AND DIRT LEG AT CONNECTION. ALSO DISCONNECT EXISTING ELECTRICAL WIRING BEFORE EXISTING UNITS ARE REMOVED. THEN TIE INTO EXISTING ELECTRICAL WIRING AND PROVIDE NEW DISCONNECT SWITCH FOR EACH RTU. MECHANICAL CONTRACTOR SHALL VERIFY IN FIELD THAT EACH RTU IS PROPERLY WIRED TO ITS RESPECTIVE EXISTING CONTROL PANEL. IF MODIFICATIONS TO THIS CONTROL WIRING ARE REQUIRED, IT SHALL BE PART OF THE SCOPE OF WORK OF THIS PROJECT. THIS NOTE PERTAINS TO
- RTU-9,10,11,12 IN THE ALTERNATE BID. (3) EXISTING ROOF MOUNTED PACKAGED ELECTRIC (DIRECT EXPANSION (DX)) COOLING UNIT (RTU-8) SHALL BE REMOVED. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL A NEW PACKAGED ROOFTOP UNIT (RTU-8). IT IS THE INTENTION TO UTILIZE "TRANSITION CURBS" THAT WILL CONNECT TO THE EXISTING ROOF MOUNTING CURBS. THE MECHANICAL CONTRACTOR SHALL PROVIDE NEW SUPPLY AND RETURN SHEET-METAL "DROPS" AND CONNECT TO EXISTING DISTRIBUTION DUCTWORK. THESE DUCTS SHALL BE INTERNALLY INSULATED. DUCT SIZES SHALL BE CLEAR INSIDE DIMENSION. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR RIGGING ROOF TRANSITION CURBS AND ROOF MOUNTED EQUIPMENT TO THEIR FINAL LOCATION. UTILIZE AS MUCH OF EXISTING ELECTRICAL WIRING AS POSSIBLE.
- 4 RTU-2 WILL BE REPLACED WITH A 8.5 TON UNIT. THIS UNIT WILL REQUIRE A NEW ROOF MOUNTING CURB FLASHED INTO EXISTING ROOF, NEW SUPPLY AND RETURN DROPS AND ALL OTHER MODIFICATIONS FOR A NEW INSTALLATION. THIS UNIT FEEDS THE RENOVATED AREA ON GROUND FLOOR SEE DRWG. HVAC-1
- 5 THE ROOF MOUNTED EXHAUST FAN THAT SERVICES THE EXISTING BATHROOMS ON THE GROUND FLOOR SHALL BE INSPECTED AND SERVICED. THEN A LICENSED AIR BALANCER SHALL MEASURE THE CFM CAPACITY OF THE FAN. THIS EXHAUST FAN IS TO BE RE-USED FOR THE NEW BATHROOMS ON THE GROUND FLOOR. IF THE FAN IS MEASURED TO BE LESS THAN AS DESIGNED (650 CFM @ 0.25 INCHES WG.), IT SHALL BE CHANGED, AND A NEW ROOF MOUNTED FAN PROVIDED UTILIZING A TRANSITION CURB, AND CONNECTING TO EXISTING DUCTWORK AND ELECTRICAL WIRING.

THE ALTERNATE BID SHALL INCLUDE THE REPLACEMENT OF RTU-8,9,10,11,12

EXISTING GAS PIPING TO R..T.U. #2 MUST BE REMOVED AND REPLACED WITH NEW 1" PIPING. NEW 1" PIPING SHALL BE CONNECTED TO UNIT WITH BALL VALVE, DIRT LEG AND UNION AT CONNECTION. NEW GAS PIPING SHALL BE EXTENDED TO ROOF TOP UNIT FROM EXISTING GAS MAIN LOCATED ABOVE FIRST FLOOR CEILING. EXACT

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ANTINOZZI ASSOCI 271 Fairfield Avenu Bridgeport, Conne Tel: (203) 377-1300 Fax: (203) 378-300 These documents specifically for this other use of these without the appro CERTIFICATION:	ue cticut 06604 2 wwv have been project. Re documents	v.antinozzi.com prepared production or s is prohibited
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BOYS AND GIRLS CLUB OF MERIDEN	INTERIOR RENOVATION	15 LINCOLN STREET MERIDEN, CONNECTICUT
DRAWING TITLE: ROOF PLA SCALE: 1/8"=1'-0" DRAWING NO.	N – H Drawn by: DC	VAC REVIEWED BY: DC
HV	40	2-3

12 JANUARY 2024 23711

ELECTRICAL SPECIFICATIONS

<u>SCOPE</u> – WORK SHALL CONSIST OF FURNISHING OF ALL LABOR, MATERIALS AND SERVICES REQUIRED, COMPLETE AND READY FOR PROPER OPERATION, FOR THE INSTALLATION OF ALL ELECTRICAL WORK CALLED FOR BY THE ACCOMPANYING PLANS AND SPECIFICATIONS. ALL SYSTEMS AND EQUIPMENT SHALL BE FULLY OPERATIONAL UNDER THIS CONTRACT BEFORE THE JOB IS CONSIDERED COMPLETE.

<u>CODES. REGULATIONS AND STANDARDS</u> – ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT CODES IN EFFECT:

2020 NATIONAL ELECTRICAL CODE 2022 CONNECTICUT STATE BUILDING CODE 2022 CONNECTICUT STATE FIRE SAFETY AND FIRE PREVENTION CODES

ANY AND ALL LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION OVER WORK <u>PERMITS, FEES AND INSPECTIONS</u> – THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES APPLICABLE. HE SHALL COMPLETE ALL DOCUMENTS, FILE ALL DRAWINGS, OBTAIN ALL NECESSARY APPROVALS FROM THE PROPER AUTHORITY HAVING JURISDICTION AND OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION COVERING HIS WORK.

<u>GUARANTEES</u> – ALL WORKMANSHIP AND MATERIALS SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF ENTIRE INSTALLATION COVERED BY THIS CONTRACT. SHOULD ANY DEFECTS OCCUR DURING THIS TIME PERIOD, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL DEFECTIVE EQUIPMENT, MATERIALS AND/OR WORK AT NO EXTRA CHARGE. SHOP DRAWINGS - SUBMIT ELECTRONIC COPIES OF DETAILED SHOP DRAWINGS FOR REVIEW OF ALL EQUIPMENT AND MATERIALS SPECIFIED AND BEING FURNISHED FOR PROJECT. SUBMITTALS

SHALL BE SPECIFIC, WITH ITEMS BEING SUBMITTED FOR APPROVAL CLEARLY IDENTIFIED. PROPERTY AND EQUIPMENT PROTECTION - CONTRACTOR SHALL TAKE ALL MEANS NECESSARY AND/OR REQUIRED TO PROTECT OWNER'S PROPERTY WITHIN WORKING AREAS FROM DUST, DEBRIS AND PHYSICAL DAMAGE GENERATED BY HIS WORK. PROPERLY AND COMPLETELY PROTECT ALL EQUIPMENT INCLUDED IN THIS CONTRACT AGAINST DAMAGE, ETC, AS CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EQUIPMENT FURNISHED BY HIM UNTIL FINAL ACCEPTANCE.

<u>CUTTING, PATCHING, REPAIRING AND PAINTING</u> – ELECTRICAL CONTRACTOR SHALL PERFORM ALL CUTTING FOR ELECTRICAL ITEMS. THE GENERAL CONTRACTOR SHALL PERFORM ALL PATCHING, REPAIRING AND PAINTING FOR ALL ELECTRICAL ITEMS UNDER THIS CONTRACT INTERRUPTION OF EXISTING SERVICES - PRECAUTIONS SHALL BE TAKEN TO NOT DISTURB OPERATIONS OF ADJACENT BUILDING AREAS. PRIOR TO PERFORMING WORK REQUIRING INTERRUPTION OF EXISTING BUILDING SERVICES, THE CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED OPERATION FROM

<u>CLEAN UP</u> - CONTRACTOR SHALL TAKE CARE TO AVOID ACCUMULATION OF BOXES AND DEBRIS RESULTING FROM THE INSTALLATION OF HIS WORK. CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE PREMISES EACH DAY AND KEEP THE WORK AREA CLEAN.

OWNER MINIMUM 24 HOURS IN ADVANCE.

<u>PENETRATION SEALANT</u> – ALL PENETRATIONS SHALL BE SEALED WITH 3M INTUMESCENT FIRE BARRIER PENETRATION SEALANT, APPLIED PER MANUFACTURER'S AND UL GUIDELINES.

<u>RECORD DRAWINGS</u> – MAINTAIN A SET OF ELECTRICAL DRAWINGS AT THE SITE INDICATING ACTUAL DEVICE LOCATIONS AND CONDUIT ROUTINGS ON THE PROJECT. CLEARLY MARK ALL ITEMS IN RED ON THE DRAWINGS. AT THE COMPLETION OF THE PROJECT, PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS CLEARLY SHOWING ALL LOCATIONS AND TURN OVER TO OWNER.

<u>REMOVALS</u> – CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL WORK AS SHOWN AND NOTED ON DRAWINGS, AND ALL ELECTRICAL WORK NOT BEING USED. BEFORE SUBMITTING HIS BID, THE CONTRACTOR SHALL VISIT THE SITE AND SURVEY THE EXISTING CONDITIONS UNDER WHICH HIS WORK WILL BE INSTALLED. ALL NEW AND EXISTING EQUIPMENT AND SYSTEMS SHALL BE FULLY OPERATIONAL BEFORE THIS PROJECT IS CONSIDERED COMPLETE. CONTRACTOR SHALL PERFORM REMOVALS WITH MINIMUM DISRUPTION OF EXISTING FUNCTIONING ELECTRICAL SYSTEMS. ANY EXISTING/ACTIVE CIRCUITS FEEDING DEVICES TO REMAIN SHALL BE MAINTAINED IN SERVICE AND REFED ÁS REQUIRED.

<u>MATERIALS AND WORKMANSHIP</u> – ALL MATERIALS REQUIRED FOR THE WORK SHALL BE NEW, OF FIRST-CLASS QUALITY AND BEAR THE UL LABEL. WHERE NO SPECIFIC BRAND OR QUALITY OF MATERIAL IS GIVEN, A FIRST-CLASS STANDARD ARTICLE SHALL BE FURNISHED. ALL WORK SHALL BE OF A QUALITY CONSISTENT WITH GOOD TRADE PRACTICE AND SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.

<u>CONDUCTORS</u> – CONDUCTORS FOR BUILDING WIRE SHALL BE UL LISTED, 600 VOLTS, 75°C, SINGLE CONDUCTOR TYPE THWN/THHN. 98% CONDUCTIVITY ANNEALED UNCOATED COPPER WITH PVC INSULATION COVERED WITH NYLON SHEATH JACKET. ALL CONDUCTORS SHALL BE STRANDED. MINIMUM SIZE CONDUCTOR SHALL BE #12 AWG. MANUFACTURED BY ROME CABLE OR EQUAL.

ELECTRICAL METALLIC TUBING (EMT) – ELECTRICAL METALLIC TUBING SHALL BE GALVANIZED THIN WALL STEEL CONDUIT. CONNECTORS AND COUPLINGS SHALL BE HEAVY DUTY, ZINC PLATED STEEL, SET SCREW TYPE. CONDUIT BODIES SHALL BE CAST ALUMINUM WITH ALUMINUM COVER AND SET SCREW HUBS. CONDUIT STRAPS SHALL BE SNAP-TYPE, DOUBLE RIBBED ZINC PLATED STEEL. MANUFACTURED BY ALLIED TUBE AND CONDUIT OR EQUAL. MINIMUM SIZE CONDUIT SHALL BE 3/4".

METAL CLAD CABLE (TYPE MC & MC-PCS) - METAL CLAD CABLE SHALL BE INTERLOCKING ARMOR CONSTRUCTION, COLOR CODED THERMOPLASTIC/NYLON INSULATION, THHN/THWN, 90°C, 600V, COPPER, WITH INTERNAL COPPER INSULATED EQUIPMENT GROUNDING CONDUCTOR. TYPE MC-PCS LUMINARY CABLE SHALL HAVE 16/2 AWG CU TYPE TFN, PURPLE AND GRAY CONTROL ASSEMBLY WITHIN CABLE. MINIMUM SIZE #12 AWG, MANUFACTURED BY SOUTHWIRE, AFC OR EQUAL.

OUTLET BOXES - OUTLET BOXES SHALL BE GALVANIZED STEEL, OF PROPER TYPE AND SIZE AS REQUIRED FOR THE APPLICATION. BOXES SHALL BE SECURED FIRMLY TO BUILDING STRUCTURE TO TAKE THE WEIGHT OF LIGHTING FIXTURES AND DEVICES, AND SET TRUE AND SQUARE. OUTLET BOXES SHALL BE ATTACHED SUCH THAT THEY WILL NOT ROCK, SHIFT OR MOVE WHEN DEVICES ARE USED. MANUFACTURED BY RACO OR EQUAL.

<u>SURFACE METAL RACEWAY</u> - SURFACE METAL RACEWAY SHALL BE AS MANUFACTURED BY WIREMOLD, MINIMUM SIZE 700, WITH MATCHING DEVICE PLATES AND ALL REQUIRED MOUNTING ACCESSORIES.

<u>VIRING DEVICES</u> – DEVICES SHALL BE 20A COMMERCIAL GRADE, UL LISTED, BACK & SIDE WIRED, SELF-GROUNDING WITH GROUND LUG, BROWN COLOR. MANUFACTURED BY HUBBELL. COVER PLATES SHALL BE TYPE 302/304 BRUSHED STAINLESS STEEL, BY LEVITON OR EQUAL.

LIGHTING FIXTURES – FURNISH AND INSTALL ALL LIGHTING FIXTURES AS SHOWN ON PLANS AND SCHEDULES, COMPLETE WITH REQUIRED ACCESSORIES AND MOUNTING HARDWARE. PROVIDE LAMPING FOR ALL FIXTURES WITH LUMEN OUTPUT, WATTAGE AND COLOR TEMPERATURE AS SPECIFIED IN SCHEDULE. CLEAN AND REMOVE ALL PAINT, STICKERS, DIRT, SMUDGES AND FINGERPRINTS FROM FIXTURES AFTER FINAL CLEAN-UP.

EMERGENCY LIGHTING AND EXIT LIGHTING SYSTEM - FURNISH AND INSTALL A SYSTEM OF EXIT AND EMERGENCY LIGHTS AS SPECIFIED ON PLANS, ARRANGED THAT IN CASE OF POWER FAILURE LIGHTS WILL AUTOMATICALLY ILLUMINATE THE EGRESS AND EXIT AREAS. EMERGENCY UNITS SHALL E UL LISTED AND MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, NFPA 101 LIFE SAFETY CODE AND CONNECTICUT BUILDING CODE.

INSTALLATION - ALL WORK, MATERIALS AND MANNER OF INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2020 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE CODES. PROVIDE WIRING TO ALL EQUIPMENT FURNISHED UNDER THIS DIVISION AND BY OWNER. THE TERM 'WIRING' SHALL BE CONSIDERED TO BE COMPRISED OF THE CONDUIT, CONDUCTORS, AND CONNECTIONS, COMPLETE AND READY FOR PROPER OPERATION.

ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY AND CONDUIT RUNS ARE SHOWN SCHEMATICALLY. BUILDING CONDITIONS WILL DETERMINE ACTUAL CONDUIT ROUTING. ALL CONDUIT AND WIRING SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING LINES. CONDUIT AND WIRING PASSING THROUGH FIRE RATED PARTITIONS SHALL BE SEALED WITH FIRE RETARDANT SEALANT. CONDUCTORS WITHIN PANELBOARDS, PULL BOXES AND OTHER EQUIPMENT SHALL BE NEATLY ARRANGED AND TIED WITH CABLE TIES. CIRCUITS SHALL BE CONNECTED TO PANELS SO THAT TOTAL LOAD IS DISTRIBUTED AS EVENLY AS POSSIBLE BETWEEN EACH LINE AND NEUTRAL.

BALANCE ALL PANELS TO +/- 10%. ELECTRICAL METALLIC TUBING (EMT) SHALL BE USED FOR CONCEALED AND EXPOSED LIGHTING, AND POWER BRANCH CIRCUIT WIRING. BRANCH CIRCUIT WIRING FOR RECEPTACLES AND DEVICES IN DRYWALL CONSTRUCTION AND ACCESSIBLE HUNG CEILING SPACES SHALL BE TYPE MC CABLE. BRANCH CIRCUIT WIRING FOR LIGHTING FIXTURES AND SWITCHES IN DRYWALL CONSTRUCTION AND ACCESSIBLE HUNG CEILING SPACES SHALL BE TYPE MC-PCS CABLE.

ANY NEW WIRING ON EXISTING CMU WALLS SHALL BE RUN IN WIREMOLD SURFACE RACEWAY AND MATCHING BACKBOXES.

CONDUCTOR IDENTIFICATION - CONDUCTORS #6 AWG AND SMALLER SHALL HAVE COLOR-CODED INSULATION. BRANCH CIRCUIT CONDUCTORS SHALL BE IDENTIFIED FOR PHASE ROTATION BRANCH CIRCUIT CONDUCTORS SHALL BE IDENTIFIED FOR PHASE ROTATION. <u>IDENTIFICATION</u> – EXISTING MODIFIED PANELS SHALL HAVE NEW TYPEWRITTEN CIRCUIT DIRECTORY IDENTIFYING ALL BRANCH CIRCUITS, SPARES AND SPACES. PROVIDE PERMANENT LABEL AT TOP

OF EACH DEVICE COVER PLATE WITH PANEL AND CIRCUIT NUMBER.

<u>GROUNDING</u> – ALL ELECTRICAL WORK SHALL BE GROUNDED AND BONDED IN CONFORMANCE WITH THE 2020 NATIONAL ELECTRICAL CODE AND LOCAL REQUIREMENTS. PROVIDE GREEN INSULATED GROUNDING CONDUCTOR IN ALL RACEWAYS.

<u>SPLICING</u> – SPLICING SHALL BE DONE WITH INSULATED OR NON-INSULATED CONNECTORS OF APPROPRIATE TYPES AND CURRENT-CARRYING CAPACITY. NON-INSULATED CONNECTORS SHALL BE WRAPPED WITH INSULATING TAPE TO THICKNESS OF INSULATION OF SPLICED CONDUCTORS. TAPE SHALL BE 3M OR SUPER 88 SCOTCH FLAME-RETARDANT, COLD AND WEATHER RESISTANT.

FIRE ALARM SYSTEM - FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT LABOR AND SERVICE REQUIRED FOR MODIFYING THE EXISTING FIRE ALARM SYSTEM AS INDICATED ON DRAWINGS. ALL NEW EQUIPMENT SHALL BE OF SAME MANUFACTURER AS EXISTING. NOTIFIER.

WIRING SHALL BE UL APPROVED FOR THE APPLICATION AND SHALL COMPLY TO BUILDING STANDARDS. JUNCTION BOXES SHALL BE SPRAYED RED AND LABELED 'FIRE ALARM'. WIRING COLOR CODING SHALL BE MAINTAINED THROUGHOUT THE INSTALLATION.

THE FIRE ALARM SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA-72 2019 EDITION BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER AND FIRE MARSHALL. UPON COMPLETION OF A SUCCESSFUL TEST, THE CONTRACTOR SHALL SO CERTIFY IN WRITING TO THE OWNER.

LIGHTING FIXTURE SCHEDULE

В

B

LIGHTING FIXTURE TYPE A

MANUFACTURER CATALOG NO.. FIXTURE DESCRIPTION VOLTAGE ... LAMPING. DRIVER .. INPUT WATTAGE MOUNTING . HOUSING . LENS/LOUVER. REMARKS .

. FLT22-30WLED-U-35 2' x 2' GRID TROFFER VFRIF LED, 3,425 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING RECESSED - GRID ALUMINUM - MATTE WHITE FINISH FROSTED ACRYLIC LENS

A LIGHTING FIXTURE TYPE

MANUFACTURER CATALOG NO..... FIXTURE DESCRIPTION ... VOLTAGE .. LAMPING. DRIVER ... INPUT WATTAGE MOUNTING ... HOUSING .. LENS/LOUVER .. REMARKS ..

. FLT22-30WLED-U-35-EM10 2' x 2' GRID TROFFER - EMERGENCY VERIF LED, 3,425 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING RECESSED - GRID ALUMINUM - MATTE WHITE FINISH FROSTED ACRYLIC LENS EMERGENCY BATTERY PACK WITH TEST SWITCH, 10 WATTS, 90 MINUTE OPERATION

LIGHTING FIXTURE TYPE

MANUFACTURER . CATALOG NO.. FIXTURE DESCRIPTION VOLTAGE .. LAMPING .. DRIVER . INPUT WATTAGE MOUNTING ... HOUSING ... LENS/LOUVER ... REMÁRKS ...

FLT24-26WLED-U-35 2' x 4' GRID TROFFER VERIFY LED, 3,157 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING RECESSED - GRID . ALUMINUM - MATTE WHITE FINISH FROSTED ACRYLIC LENS

LIGHTING FIXTURE TYPE

MANUFACTURER CATALOG NO..

INPUT WATTAGE

LENS/LOUVER.

VOI TAGE

DRIVER

LAMPING.

MOUNTING .

REMÁRKS ..

REMÁRKS .

HOUSING .

FIXTURE DESCRIPTION ...

FLT24-26WLED-U-35-EM10 2' x 4' GRID TROFFER - EMERGENCY VERIFY LED, 3,157 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING RECESSED - GRID ALUMINUM - MATTE WHITE FINISH FROSTED ACRYLIC LENS EMERGENCY BATTERY PACK WITH TEST SWITCH, 10 WATTS, 90 MINUTE OPERATION

LIGHTING FIXTURE TYPE B1 MANUFACTURER

CATALOG NO..... VOLTAGE . LAMPING. DRIVER. INPUT WATTAGE MOUNTING ... HOUSING . LENS/LOUVER ..

FLT24-45WLED-U-35 FIXTURE DESCRIPTION 2' x 4' GRID TROFFER VFRIFY LED, 5,089 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING 45 RECESSED - GRID ALUMINUM - MATTE WHITE FINISH

FROSTED ACRYLIC LENS

LIGHTING FIXTURE TYPE B1

MANUFACTURER . CATALOG NO.. VOLTAGE .. LAMPING .. DRIVER INPUT WATTAGE. MOUNTING .. HOUSING .. LENS/LOUVER .. REMARKS .

MANUFACTURER

INPUT WATTAGE

LENS/LOUVER ..

MOUNTING ...

REMÁRKS ..

HOUSING .

CATALOG NO.

VOLTAGE .

DRIVER ..

_AMPING.

.. ILP FI T24-45WI FD-U-35-FM10 LED, 5,089 LUMENS, 3500K ELECTRONIC, 0-10V DIMMING RECESSED - GRID

ALUMINUM - MATTE WHITE FINISH FROSTED ACRYLIC LENS EMERGENCY BATTERY PACK WITH TEST SWITCH, 10 WATTS, 90 MINUTE OPERATION

LIGHTING FIXTURE TYPE 0

FIXTURE DESCRIPTION ...

JUNO JSF 5IN07LM 30K 90CRI MVOLT ZT WH 5" DIA. SURFACE DOWNLIGHT ED, 700 LUMENS, 3000K ELECTRONIC, 0-10V DIMMING SURFACE THERMOPLASTIC DIFFUSING LENS

NON CONDUCTIVE, WET LOCATION LISTED **⊗**^{X1}

LIGHTING FIXTURE TYPE MANUFACTURER

CATALOG NO. FIXTURE DESCRIPTION .. VOI TAGE LAMP & DESIGNATION ... MOUNTING HOUSING . LENS/LOUVER .. REMÁRKS ..

LITHONIA . LQM S W 3R MVOLT ELN . SINGLE FACE EMERGENCY EXIT SIGN 120/277 LED SURFACE - CEILING THERMOPLASTIC - WHITE RED LETTERS - WHITE FACE

MAINTENANCE FREE BATTERY, 90 MINUTE OPERATION. SHADED AREA INDICATES FACE, CHEVRON DIRECTIONAL ARROWS AS INDICATED.

LIGHTING FIXTURE TYPE

XER

MANUFACTURFR CATALOG NO. FIXTURE DESCRIPTION VOI TAGE LAMP & DESIGNATION MOUNTING HOUSING LENS/LOUVER REMARKS ..

DUAL-LITE HCXURW-03LRC12 ... EXIT SIGN/EMERGENCY LIGHTING UNIT COMBO LED LETTERS/2 - 3 WATT LED LAMP HEADS SURFACE - CEILING THERMOPLASTIC - WHITE RED LETTERS - WHITE FACE SHADED AREA INDICATES FACE. MAINTENANCE-FREE BATTERY, 90 MINUTE EMERGENCY OPERATION. DIRECTIONAL CHEVRON ARROWS AS INDICATED. 17 WATTS REMOTE FIXTURE CAPABILITY.

LIGHTING FIXTURE TYPE K€EM

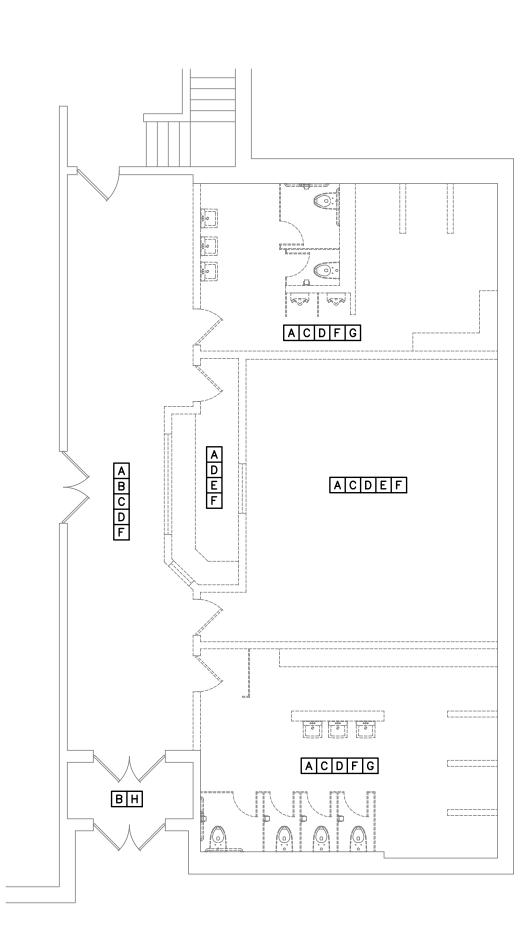
VOI TAGE .

MOUNTING .

REMARKS ...

HOUSING

MANUFACTURER DUAL-LITE CATALOG NO. CPRDW-03I . EXTERIOR DUAL HEAD REMOTE EMERGENCY LIGHTING UNIT FIXTURE DESCRIPTION 6V/12V 2 - 3 WATT LED MR16 LAMP & DESIGNATION SURFACE - WALL THERMOPLASTIC LAMPHEAD/MOUNTING PLATE ASSEMBL LENS/LOUVER .. ADJUSTABLE LAMPHOLDERS .. UL LISTED FOR WET LOCATIONS, WHITE FINISH

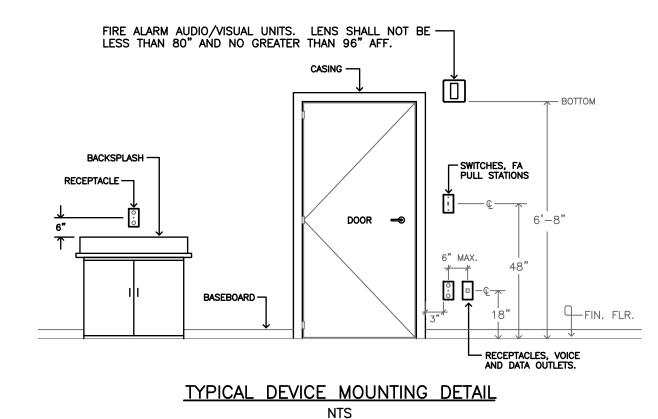


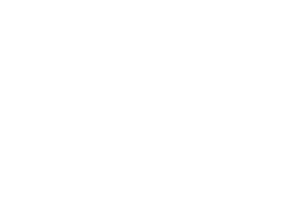
ELECTRICAL REMOVALS PLAN SCALE: 1/8" = 1'-0"

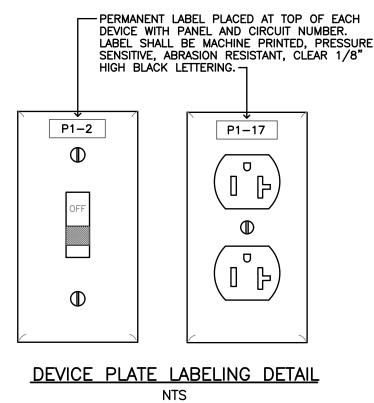
REMOVALS LEGEND

DISCONNECT & REMOVE (UNLESS OTHERWISE INDICATED), THE FO	OLLOWING:
A - LIGHTING FIXTURES, SWITCHES AND ASSOCIATED CONDUIT	AND WIRING

- B EXIT SIGNS AND ASSOCIATED CONDUIT AND WIRING
- C EMERGENCY LIGHTING UNIT AND ASSOCIATED CONDUIT AND WIRING
- D RECEPTACLES AND ASSOCIATED CONDUIT AND WIRING
- E VOICE/DATA OUTLET AND ASSOCIATED BACKBOX AND CABLING
- F FIRE ALARM DEVICES AND ASSOCIATED WIRING
- G ELECTRIC HAND DRYER AND ASSOCIATED CONDUIT AND WIRING
- H RECESSED DOWNLIGHT FIXTURES AND ASSOCIATED CONDUIT AND WIRING







ABBREVIATIONS

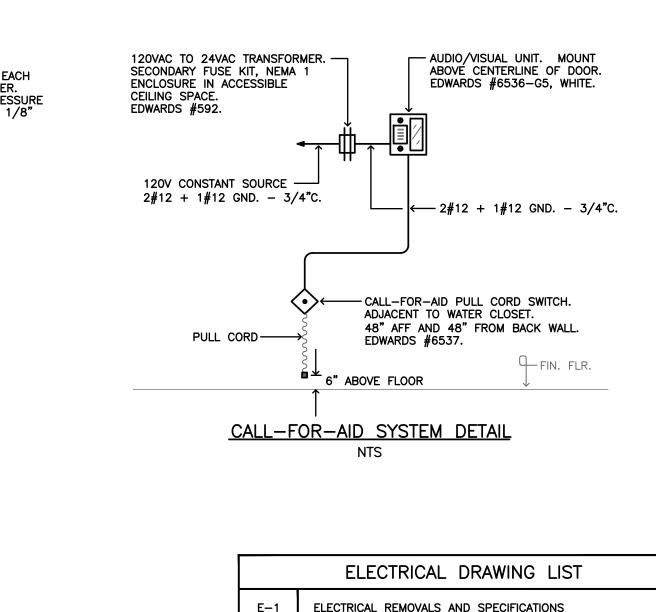
Α	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AWG	AMERICAN WIRE GAUGE
С	CONDUIT
СВ	CIRCUIT BREAKER
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
KVA	KILOVOLT-AMPERE
ĸw	KILOWATT
Ν	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NTS	NOT TO SCALE
OC	ON CENTER
Р	POLE
PH, Ø	PHASE
SQ	SQUARE
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
v	VOLT
VA	VOLT-AMPERE

WATT

W

ELECTRICAL SYMBOLS

A	- 2' x 2' GRID TROFFER WITH TYPE DESIGNATION, SHADING INDICATES EMERGENCY
B	- 2' x 2' GRID TROFFER WITH TYPE DESIGNATION, SHADING INDICATES EMERGENCY
⊗ ^{X1}	- EMERGENCY EXIT SIGN WITH TYPE DESIGNATION
XE	- COMBINATION EXIT SIGN/EMERGENCY LIGHTING UNIT WITH TYPE DESIGNATION, SHADED AREA INDICATES FACE
⊮€ ^{EM}	- EXTERIOR REMOTE EMERGENCY LIGHTING HEADS WITH TYPE DESIGNATION
S	– SINGLE POLE TOGGLE SWITCH, 20A @ 120/277V, 48" AFF
S3	– THREE-WAY TOGGLE SWITCH, 20A @ 120/277V, 48" AFF
Sĸ	– SINGLE POLE KEY SWITCH, 20A @ 120/277V, 48" AFF
S _{3K}	– THREE-WAY KEY SWITCH, 20A @ 120/277V, 48" AFF
So	- SINGLE POLE WALL SWITCH OCCUPANCY SENSOR, 48" AFF, SENSORSWITCH #WSD
SD	- LINEAR SLIDE-TO-OFF PRESET 0-10V DIMMER SWITCH, 48" AFF.
09	 CEILING MOUNTED STANDARD RANGE OCCUPANCY SENSOR, SENSORSWITCH #CM-DPT WITH #PP-20P POWER PACK OR EQUAL
Φ^{E}	 EXISTING DUPLEX RECEPTACLE TO BE REMOVED AND REPLACED WITH NEW DUPLEX RECEPTACLE, 20A @ 125V, AND COVER PLATE
Ф	- DUPLEX RECEPTACLE, 20A @ 125V, 18" AFF UNLESS OTHERWISE NOTED
₽ ^G	- GFCI DUPLEX RECEPTACLE, 20A @ 125V, MOUNTED ABOVE COUNTER
$\mathbf{\Lambda}$	 VOICE/DATA OUTLET, 18" AFF UNLESS NOTED OTHERWISE, SINGLE GANG PLASTER RING WITH NYLON PULL CORD UP TO ACCESSIBLE CEILING SPACE
\bigcirc	- NEW FLAT PANEL DISPLAY FLUSH WALL POWER AND CATV/DATA SERVICE BOX
	- EXISTING PANELBOARD
-**>	- HOMERUN TO PANELBOARD
*	 CONDUIT AND WIRE – SWITCHED CIRCUIT. CROSS LINES INDICATE NUMBER OF CONDUCTORS FOR CONSTANT FEED IN CIRCUIT, INSULATED GROUND REQUIRED BUT NOT SHOWN.
	– CONDUIT AND WIRE – CONSTANT FEED CIRCUIT, INSULATED GROUND REQUIRED BUT NOT SHOWN
J	- JUNCTION BOX
ď	– SAFETY DISCONNECT SWITCH – NEMA 1 ENCLOSURE
	– SAFETY DISCONNECT SWITCH – NEMA 3R ENCLOSURE
\diamond	- CALL-FOR-AID SYSTEM PULL CORD STATION, 48" AFF. MOUNTED ADJACENT TO WATER CLOSET, 48" AFF AND 48" FROM BACK WALL, SEE DETAIL.
소	- CALL-FOR-AID SYSTEM HORN/STROBE UNIT
#	- CALL-FOR-AID SYSTEM TRANSFORMER
۶ E	- EXISTING FIRE ALARM MANUAL PULL STATION TO REMAIN
SE	- EXISTING FIRE ALARM ADDRESSABLE SMOKE DETECTOR
\$	- FIRE ALARM ADDRESSABLE SMOKE DETECTOR
F	- FIRE ALARM HORN/ADA STROBE UNIT, 80" AFF TO BOTTOM OF UNIT
\forall	- FIRE ALARM ADA STROBE UNIT, 80" AFF TO BOTTOM OF UNIT



ASSOCIATES ARCHITECTURE + INTERIORS
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CONSULTANT: GENERAL DRAFTING & DESIGN, INC. CONSULTING ENGINEERS 140 Washington Avenue, 3rd Floor North Haven, Connecticut 06473 P: 203.239.6818 e: gdd@snet.net
BOYS AND GIRLS CLUB OF MERIDEN INTERIOR RENOVATION 15 LINCOLN STREET MERIDEN, CONNECTICUT
DRAWING TITLE: ELECTRICAL REMOVALS AND SPECIFICATIONS
SCALE: DRAWN BY: REVIEWED BY: AS NOTED MMV MMV DRAWING NO. E-1

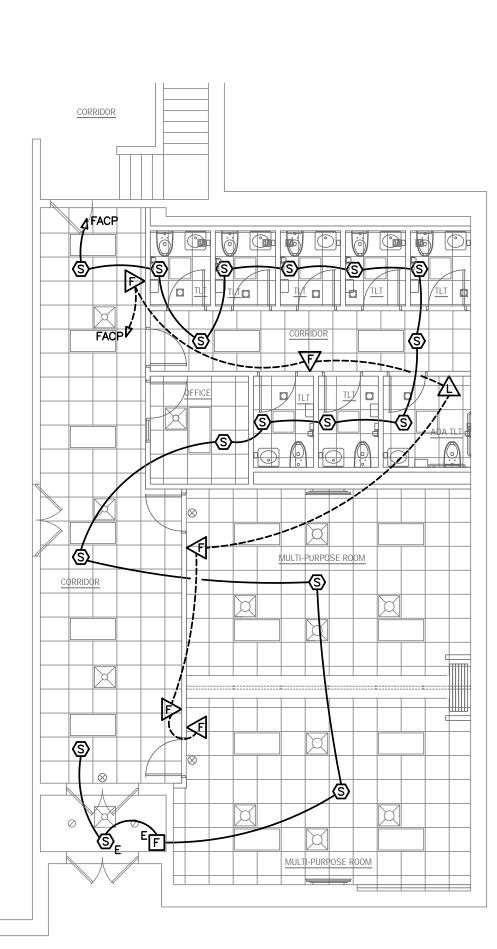
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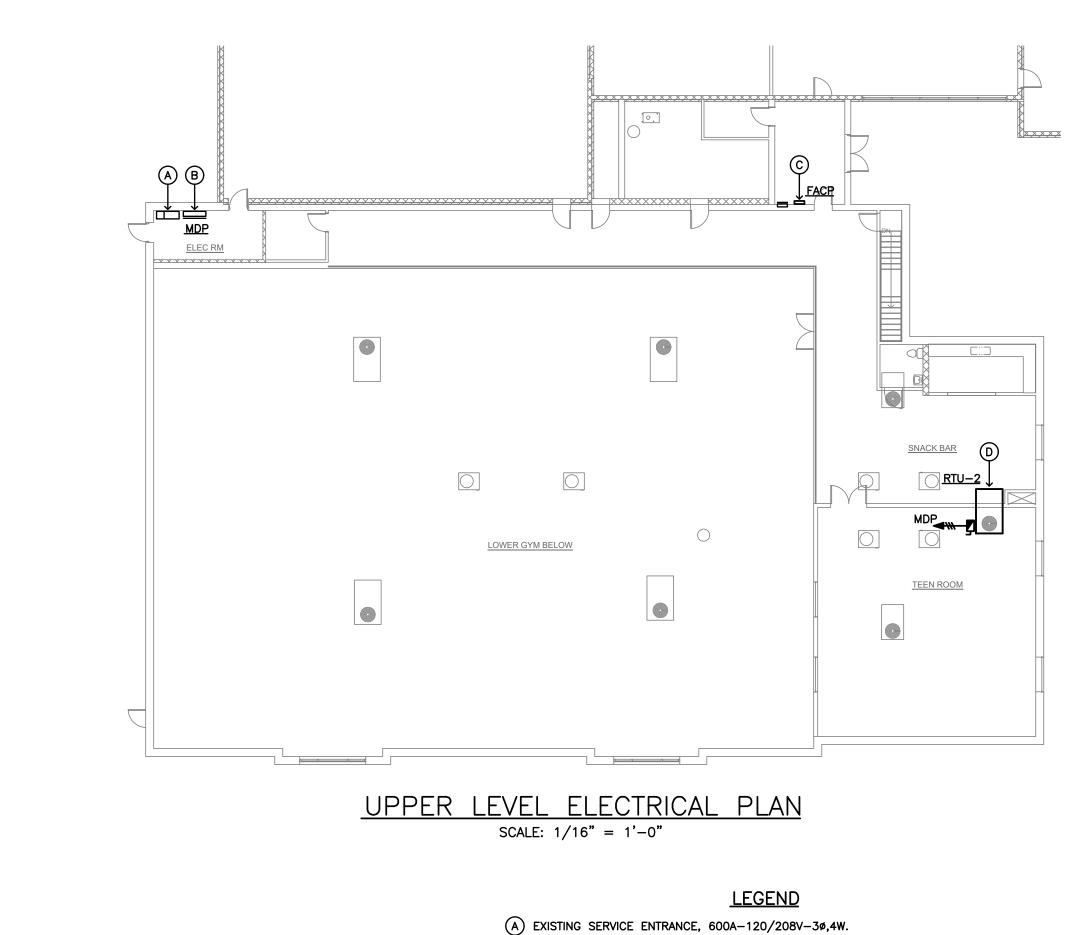
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12 JANUARY 2024

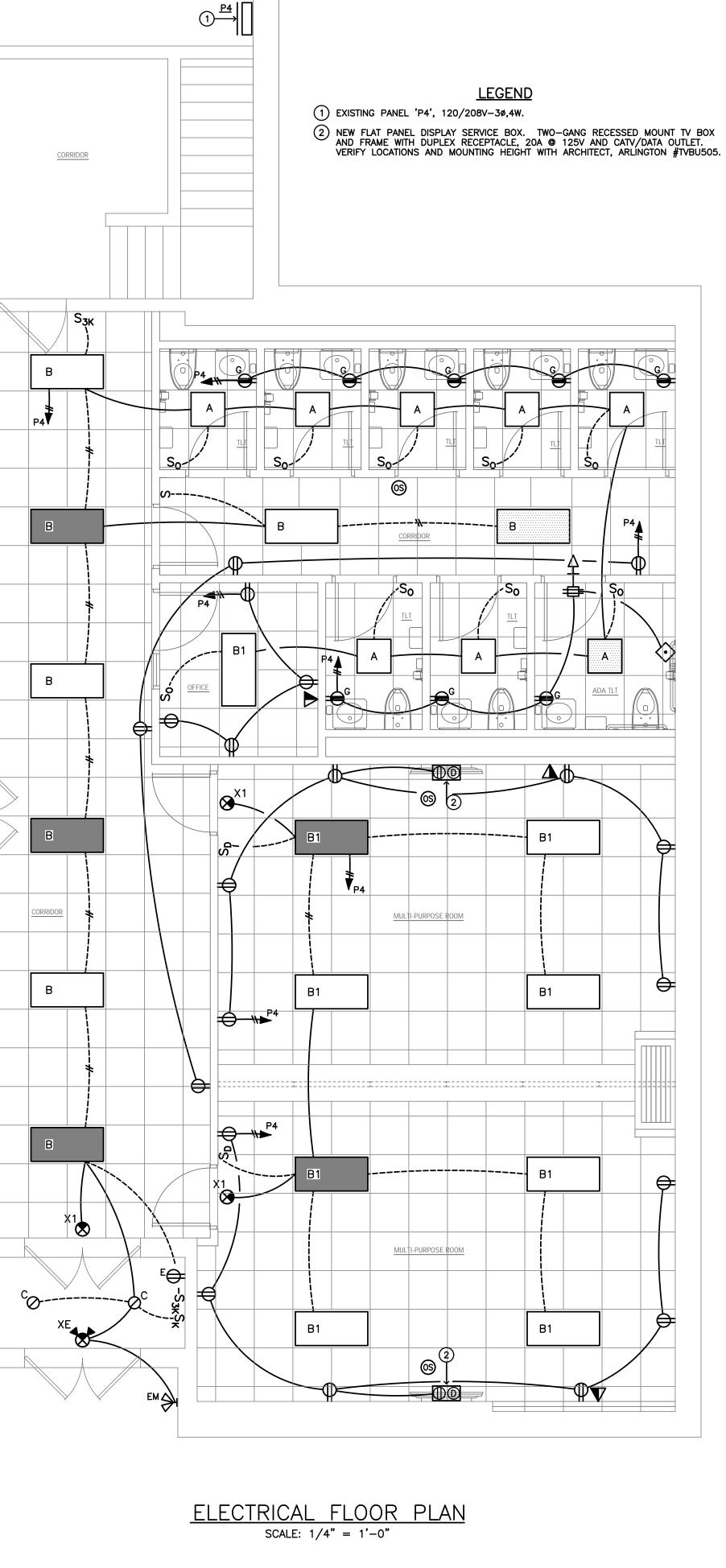
E-2







FIRE ALARM FLOOR PLAN SCALE: 1/8" = 1'-0"



JAN CL

B EXISTING MAIN DISTRIBUTION PANEL, 600A-120/208V-3Ø. REMOVE EXISTING 30A-3P BRANCH CIRCUIT BREAKER SERVING ROOFTOP UNIT AND PROVIDE NEW 60A-3P BRANCH CIRCUIT BREAKER.

D EXISTING ROOFTOP UNIT TO BE REMOVED AND REPLACED WITH NEW ROOFTOP UNIT, 48MCA-208V-30. REMOVE EXISTING FEEDER AND PROVIDE NEW 3 #6 + 1 #10 GND. FEEDER TO 60A-3P BRANCH CIRCUIT BREAKER IN MAIN DISTRIBUTION PANEL.

C EXISTING FIRE ALARM CONTROL PANEL, NOTIFIER AFP-200.

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-		CTRIC OR PI	CAL LANS drawn by: MMV	REVIEWED BY: MMV



THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine

Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the *contractor's* responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: <u>www.ctdol.state.ct.us</u>. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

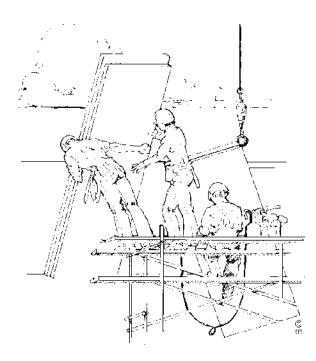
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

[∞] Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

, acting in my official capacity as				
authorized representative	title			
for, located at				
contracting agency	address			
do hereby certify that the total dollar amount of wor	rk to be done in connection with			
, locate	ed at			
project name and number	address			
shall be $\underline{\$}$, which includes all w	ork, regardless of whether such project			
consists of one or more contracts.				
CONTRACTOR IN	IFORMATION			
Name:				
Address:				
Authorized Representative:				
Approximate Starting Date:	_			
Approximate Completion Date:	_			
Signature	Date			
Signature	Date			
Return To: Connecticut Department of Labor				

Keturn 10: Connecticut Department of Labor
 Wage & Workplace Standards Division
 Contract Compliance Unit
 200 Folly Brook Blvd.
 Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM Construction Manager at Risk/General Contractor/Prime Contractor

I,		of Company Name			
Officer, Owner, Auth	orized Rep.	Company Name			
do hereby certify that the _		~			
	Company Name				
	Street				
-		City			
and all of its subcontractor	s will pay all work	ters on the			
	Project Name and	d Number			
	Street and City	7			
the wages as listed in the so attached hereto).	chedule of prevaili	ng rates required for such project (a copy	y of which is		
		Signed			
Subscribed and sworn to be	efore me this	day of,			
			_		
		Notary Public			
Wage & W 200 Folly E	at Department of La forkplace Standard Brook Blvd. ld, CT 06109				
Rate Schedule Issued (D	ate):				

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS. November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- Laborers (Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

Information Bulletin Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine *"job classification"* on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

ASBESTOS WORKERS

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

• ASBESTOS INSULATOR

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

• **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

• <u>BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS,</u> <u>PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO</u> <u>WORKERS, TILE SETTERS</u>

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

• <u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR</u> <u>LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

• LABORER, CLEANING

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

DELIVERY PERSONNEL

• If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages <u>are not required</u>. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

• An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

• <u>ELECTRICIANS</u>

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. **License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.*

• ELEVATOR CONSTRUCTORS

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. **License required by Connecticut General Statutes: R-1,2,5,6.*

• FORK LIFT OPERATOR

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

• <u>GLAZIERS</u>

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

• IRONWORKERS

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

• INSULATOR

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

LABORERS

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

• <u>PAINTERS</u>

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

• LEAD PAINT REMOVAL

- Painter's Rate
 - 1. Removal of lead paint from bridges.
 - 2. Removal of lead paint as preparation of any surface to be repainted.
 - 3. Where removal is on a Demolition project prior to reconstruction.
- Laborer's Rate
 - 1. Removal of lead paint from any surface NOT to be repainted.
 - 2. Where removal is on a *TOTAL* Demolition project only.
 - PLUMBERS AND PIPEFITTERS

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. **License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4*.

• <u>POWER EQUIPMENT OPERATORS</u>

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. *License required, crane operators only, per Connecticut General Statutes.

• <u>ROOFERS</u>

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

• <u>SHEETMETAL WORKERS</u>

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

• SPRINKLER FITTERS

Installation, alteration, maintenance and repair of fire protection sprinkler systems. **License required per Connecticut General Statutes: F-1,2,3,4.*

• TILE MARBLE AND TERRAZZO FINISHERS

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

• TRUCK DRIVERS

~How to pay truck drivers delivering asphalt is under <u>REVISION~</u>

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. **License required, drivers only, per Connecticut General Statutes.*

For example:

• Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.

• Hauling material off site is not covered provided they are not dumping it at a location outlined above.

• Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

 Any questions regarding the proper classification should be directed to: Public Contract Compliance Unit Wage and Workplace Standards Division Connecticut Department of Labor 200 Folly Brook Blvd, Wethersfield, CT 06109 (860) 263-6543.

Connecticut Department of Labor Wage and Workplace Standards Division FOOTNOTES

⇒ Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and

(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Minimum Rates and Classifications for Building Construction

ID#:	*: 24-57283	Connecticut Department of Labor
		Wage and Workplace Standards

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number:	B024-01 ARPA	Project Town:	Meriden
State#:		FAP#:	

Project: Meriden Boys and Girls Club Renovations

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	45.56	32.65
2) Boilermaker	46.21	29.35
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	41.11	34.65 + a
3b) Tile Setter	37.1	30.52
3c) Tile and Stone Finishers	30.0	25.30
3d) Marble & Terrazzo Finishers	31.07	24.23
3e) Plasterer	42.77	29.63

4) Group 1: General laborers, carpenter tenders, concrete specialists, wrecking laborers and fire watchers.	33.5	25.59
4) Group 1a: Acetylene Burners (Hours worked with a torch)	34.5	25.59
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	33.75	25.59
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	34.0	25.59
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	34.5	25.59
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	34.25	25.59
4e) Group 6: Blasters, nuclear and toxic waste removal.	36.5	25.59
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	36.5	25.59
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	31.78	25.59
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	31.24	25.59
4i) Group 10: Traffic Control Signalman	20.1	25.59

4j) Group 11: Toxic Waste Removers A or B With PPE	36.5	25.59
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	37.61	27.61
5a) Millwrights	40.56	28.87
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	42.6	33.21+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	64.01	37.885+a+b
LINE CONSTRUCTION		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	41.18	24.55 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	42.37	40.02 + a
OPERATORS		
Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	52.78	27.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	48.37	27.80 + a

Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	52.41	27.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	51.51	27.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer)	48.0	27.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott- 1085 or similar);Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	47.1	27.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	46.64	27.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	45.92	27.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	45.92	27.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	45.55	27.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	45.14	27.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	44.67	27.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation	44.14	27.80 + a

Truck and Hydrovac Excavation Truck (27 HG pressure or greater).

Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	41.69	27.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	41.69	27.80 + a
Group 12: Wellpoint Operator.	41.61	27.80 + a
Group 13: Compressor Battery Operator.	40.92	27.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	39.54	27.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	39.06	27.80 + a
Group 16: Maintenance Engineer.	38.28	27.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	43.46	27.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	40.54	27.80 + a
PAINTERS (Including Drywall Finishing)		
10a) Brush and Roller	37.62	24.55
10b) Taping Only/Drywall Finishing	38.37	24.55

10c) Paperhanger and Red Label	38.12	24.55
10e) Blast and Spray	40.62	24.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	48.28	35.50
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
13) Roofer (composition)	41.8	22.65
14) Roofer (slate & tile)	42.3	22.65
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	41.89	43.22
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	48.28	35.50
TRUCK DRIVERS		
17a) 2 Axle, Helpers	32.16	30.51 + a
17b) 3 Axle, 2 Axle Ready Mix	32.27	30.51 + a
17c) 3 Axle Ready Mix	32.33	30.51 + a
17d) 4 Axle	32.39	30.51 + a
17e) 4 Axle Ready Mix	32.44	30.51 + a

17f) Heavy Duty Trailer (40 Tons and Over)	34.66	30.51 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	32.44	30.51 + a
17h) Heavy Duty Trailer up to 40 tons	33.39	30.51 + a
17i) Snorkle Truck	32.54	30.51 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	47.55	32.27 + a
19) Theatrical Stage Journeyman	25.76	7.34

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers. **Note: Hazardous waste premium \$3.00 per hour over classified rate

Crane with 150 ft. boom (including jib) - \$1.50 extra
Crane with 200 ft. boom (including jib) - \$2.50 extra
Crane with 250 ft. boom (including jib) - \$5.00 extra
Crane with 300 ft. boom (including jib) - \$7.00 extra
Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page:

www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

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

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: January 19, 2024

CITY OF MERIDEN, CONNECTICUT

INSURANCE REQUIREMENTS

Contractor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Meriden as an **Additional Insured on a primary and non-contributory basis** to all policies except Workers Compensation and Professional Liability. All policies should also include a Waiver of Subrogation. Umbrella/Excess shall state that it follows form over General Liability, Auto Liability and Workers Compensation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A-"VIII. In addition, all Carriers are subject to approval by the City of Meriden.

5 11 5	-	(Minimum Limits)
General Liability	Each Occurrence	\$1,000,000
•	General Aggregate	\$2,000,000
	Products/Completed Operations Aggregate	\$2,000,000
Auto Liability	Combined Single Limit	
	Each Accident	\$1,000,000
Umbrella	Each Occurrence	\$1,000,000
(Excess Liability)	Aggregate	\$1,000,000
Workers' Compensation	and WC Statutory Limits	
Employers' Liability	EL Each Accident	\$1,000,000
Employers Encomy	EL Disease Each Employee	\$1,000,000
	EL Disease Policy Limit	\$1,000,000
Errors & Omissions	Each Occurrence	\$1,000,000

Original, completed Certificates of Insurance must be presented to the City of Meriden prior to contract issuance. Contractor agrees to provide replacement/renewal certificates at least 60 days prior to the expiration date of the policies.

CITY OF MERIDEN, CONNECTICUT

B024-01 – ARPA- Meriden Boys and Girls Club Renovations

AGREEMENT

 This AGREEMENT, made as of this ______, 2024 by and between the City of Meriden, 142

 East
 Main
 Street, Meriden
 CT
 06450 (hereinafter the "City")

 and _______ (hereinafter the "Contractor").

WHEREAS, the City has issued a certain Invitation to Bid regarding Window Replacement; and

WHEREAS, the Contractor is in the business of providing such services, is the successful bidder, and has been awarded this Agreement.

NOW THEREFORE, the parties mutually agree as follows:

- 1. <u>AGREEMENT OF THE PARTIES</u>: The City hereby contracts for and the Contractor hereby agrees to perform the work as stated in the minimum specifications as required by the City at the locations requested.
- 2. <u>SCOPE OF SERVICES</u>: As per the bid proposal documents, incorporated by reference herein.
- 3. <u>TERM</u>: This Agreement shall begin ______ and end _____, unless extended or terminated.
- 4. <u>PAYMENT</u>: The City shall pay the Contractor in accordance with the bid proposal documents, incorporated by reference herein. Work performed without authorization will not be paid for.
- 5. <u>AUDITS</u>: At any time during normal business hours, and as often as maybe deemed necessary, the Contractor shall make available for examination of all records with respect to all matters covered by this Agreement and will permit authorized City, State, and/or Federal Officials to audit, inspect, examine and make excerpts or transcripts, from such records and to make audits of all contracts, invoices, payrolls, and other data relating to all matters covered by this Agreement.
- 6. <u>INDEPENDENT</u> CONTRACTOR: It is understood that the services of the Contractor shall be as an independent contractor and not as an employee of the City, and that persons employed by said Contractor providing services under this Agreement shall be the employees of the Contractor and not of the City.
- 7. <u>INDEMNIFICATION</u>: Contractor shall indemnify and save harmless City against any and all damages to property or injuries to or death of any person or persons, including property and employees or agents of City, and shall defend, indemnify and save harmless City from

any and all claims, demands, suits, actions or proceedings of any kind or nature including workers' compensation claims, of or by anyone in any way resulting from or arising out of the operations in connection with this Agreement, including operations of subcontractors and acts or omissions of employees or agents of contractor or his or her subcontractors. Insurance coverage specified in this Agreement constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of Contractor under the terms of this Agreement. Contractor shall procure and maintain, at its own cost and expense, any additional kinds and amounts of insurance which, in its own judgment, may be necessary for his/her/its proper protection in the prosecution of the work. Contractor agrees that will well and truly save and indemnify and keep harmless the City against all liability, judgments, costs and expenses which may in any way come against owner, or which may in any way result from carelessness or neglect of contractor or its agents, employees or workmen in any respect whatever.

8. <u>INSURANCE</u>: The Contractor shall provide and maintain a Certificate of Insurance for the duration of this Agreement naming the City of Meriden as an ADDITIONAL INSURED and with the types and limits stated in the insurance requirements section. The Contractor agrees to provide Certificates of Insurance as requested by the City.

The contractor and its subcontractors shall comply with the Workers' Compensation Act of the State of Connecticut and shall provide compensation insurance to protect the Contractor, its subcontractors, and the City from and against any and all workers' compensation claims arising from performance of the Work under the Agreement. The City shall be furnished, prior to undertaking any work, copies of the certificate or certificates evidencing such insurance to be in effect.

- 9. <u>TERMINATION</u>: The City or the Contractor shall have the right, without cause, to terminate this Agreement within fifteen (15) days following the written notification to the other party to that effect by Certified Mail or personal delivery by agent, and upon the expiration of said fifteen (15) day period, this Agreement shall be null and void and all rights established herein shall end and terminate. It shall not be necessary for either party to state a reason for such termination.
- 10. <u>BID PROPOSAL DOCUMENTS</u>: The bid proposal documents are hereby incorporated by reference and made a part of this Agreement.
- 11. <u>DEFECTIVE WORK</u>: During a period of one year from and after the final acceptance of the work except as provided elsewhere in this Agreement, the Contractor shall, at its own expense, make all needed repairs or replacements due to defective work or materials which, in the judgment of the City, shall become necessary during this period. If within ten (10) days after the mailing of a written notice to the Contractor, or its agent, requesting repairs or replacement, the Contractor shall neglect to make or undertake with due diligence to make them, the City may make the repairs at the Contractor's expense; provided, however, that in the case of emergency where, in the judgment of the City, delay would cause serious loss or damage, repairs or replacement may be made without notice being sent to the Contractor, and the contractor shall pay the cost.

- 12. <u>GUARANTEE</u>: The Contractor shall further guarantee that the sidewalk repairs shall remain in good order and repair for a period of five (5) years from all causes arising from defective work and materials, and to make all repairs arising from these causes during this period without further compensation, and shall guarantee the sidewalks against defective work and materials, and shall keep them in good order and repair without further compensation for a period of two (2) years from and after completion and acceptance of them by the City. The determination of the necessity for the repair or replacement of sidewalks or any portion of them, shall rest entirely with the City, whose decision upon the matter shall be final and obligatory upon the Contractor.
- 13. <u>CLEAN UP</u>: The contractor shall remove and clean up all rubbish, debris, excess material, temporary structures, tools and equipment from streets, alleys, parkways, and adjacent property that may have been used or worked on by the Contractor in connection with the Work promptly as each section or portion is completed and ready for use, leaving the same in a neat and presentable condition. Payment of monthly or partial estimates may be withheld until this has been done to the satisfaction of the City. Final acceptance and payment for the entire project will not be made until this has been fully taken care of.

During the construction, the Contractor shall keep the site of the work and adjacent premises as free from material, debris, and rubbish as is practicable and shall remove this waste entirely and at once, if, in the opinion of the city, such material, debris, or rubbish constitutes a nuisance, a safety hazard or is objectionable in any way to the public.

Upon completion and before final acceptance of the work, the Contractor shall remove from the site of the work and adjacent premises all machinery, equipment, surplus materials, falsework, excavated and useless materials, rubbish, temporary buildings, barricades and signs, and shall restore the site to the same general conditions that existed prior to the commencement of its operations. The cost of final cleaning up will not be paid for under any specific scheduled item but shall be included in the prices bid for the various items, or included in the contract lump-sum price as the case may be.

The Contractor shall clean off all cement streaks or drippings, paint smears or drippings, rust stains, oil, grease, dirt, and any other foreign materials deposited or accumulated on any portion of its work, or existing work, due to its operations.

- 14. <u>CHARTERS, LAWS, AND ORDINANCES</u>: The Contractor shall at all times observe and comply with the provisions of the charter, ordinances and regulations of the City of Meriden and of state and federal laws, rules and regulations which in any manner limit, control, or apply to the actions or operations of the contractor, its subcontractors, or the subcontractors employees, agents or servants, engaged upon the work or affecting the materials supplied to or by them
- 15. <u>CONTRACTOR'S DUTIES</u>: The Contractor shall be responsible for the completion of the Work according to the bid proposal documents, and its responsibility shall not cease until the whole work contracted for is completed and accepted. The Contractor shall keep fully informed at all times regarding all details of the work. The Contractor shall be responsible for all delays that may result in failure to install the work in the proper manner and proper

time. It shall carefully study and compare all drawings, specifications, and other instructions and shall immediately report to the City any error or omission which the Contractor may discover, and shall subsequently proceed with the work in accordance with the instructions from the City concerning the error or omission. The Contractor shall furnish a competent and adequate staff as necessary for the proper administration, coordination and supervision of the work, organize the procurement of all the materials and equipment so that it will be available at the time they are needed for the work. The Contractor shall keep an adequate force of skilled workers on the job to complete the work in accordance with all requirements of the contract documents. Any employee who is considered incompetent or careless in his or her work shall be removed on demand of the engineer and replaced by a competent person.

- 16. <u>LIQUIDATED DAMAGES</u>. The Contractor acknowledges that time is of the essence for the Contractor to render its services and that the City will suffer financial loss if the Work is not completed within the times specified in paragraph 3 above. The Contractor acknowledges the expense and difficulties involved in proving the actual loss suffered by the City if the Work is not completed on time. Accordingly, instead of requiring any such proof, the City and Contractor agree that as liquidated damages for any delay (but not as a penalty), the Contractor shall pay the City TWO HUNDRED FIFTY AND NO/100 DOLLARS (\$250.00) for each day that expires after the time specified in Section 3 for substantial completion until the Work is substantially complete. After substantial completion, if Contractor neglects, refuses, or fails to complete the remaining Work within the time specified in Section 3, Contractor shall pay the City TWO HUNDRED FIFTY AND NO/100 DOLLARS (\$250.00) for each day that expires after the time specified in Section 3 for completion and readiness for final payment.
- 17. <u>BLUE PENCIL PROVISION</u>: In the event that any provision of this Agreement is unenforceable under applicable law, the validity or enforceability of the remaining provisions will not be affected. To the extent any provision of this Agreement is judicially determined to be unenforceable, a court of competent jurisdiction may reform any such provision to make it enforceable. The provisions of this Agreement will, where possible, be interpreted so as to sustain its legality and enforceability.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals on the day and year indicated.

CONTRACTOR:

	Date:
Duly Authorized	
CITY OF MERIDEN:	
	Date:
Emily E Holland, City Manager Duly Authorized	

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by









AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
 - 1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 - 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 - 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 - 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 - 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 - 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 - 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 - 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 - 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 - 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 - 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

- 12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- 13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
- 14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
- 15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
- 16. Cost of the Work—See Paragraph 11.01 for definition.
- 17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- 18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 19. Engineer—The individual or entity named as such in the Agreement.
- 20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- 21. General Requirements—Sections of Division 1 of the Specifications.
- 22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
- 23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- 26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

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- 27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
- 28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
- 29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
- 30. PCBs—Polychlorinated biphenyls.
- 31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
- 32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
- 33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
- 34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
- 35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- 36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
- 37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
- 39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

- 40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- 41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
- 42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
- 43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- 44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 45. Successful Bidder—The Bidder submitting a responsive Bid to whom Owner makes an award.
- 46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
- 47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
- 48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 49. Unit Price Work—Work to be paid for on the basis of unit prices.
- 50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 51. Work Change Directive—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. Intent of Certain Terms or Adjectives:
 - 1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective:

- 1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

- E. Furnish, Install, Perform, Provide:
 - 1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

- 2.01 Delivery of Bonds and Evidence of Insurance
 - A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
 - B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.
- 2.02 Copies of Documents
 - A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.
- 2.03 Commencement of Contract Times; Notice to Proceed
 - A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference; Designation of Authorized Representatives

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 Initial Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on

Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

- 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
- 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

- 3.01 Intent
 - A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
 - B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
 - C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 - 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

- A. Reporting Discrepancies:
 - 1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
 - 2. Contractor's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
 - 3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.
- B. Resolving Discrepancies:
 - 1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
- 3.04 *Amending and Supplementing Contract Documents*
 - A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
 - B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

- 1. A Field Order;
- 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
- 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.
- 3.06 *Electronic Data*
 - A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
 - B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
 - C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

- 4.01 Availability of Lands
 - A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
 - B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
 - C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.
- 4.02 Subsurface and Physical Conditions
 - A. Reports and Drawings: The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, or information.

4.03 Differing Subsurface or Physical Conditions

- A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
 - 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
 - 2. is of such a nature as to require a change in the Contract Documents; or
 - 3. differs materially from that shown or indicated in the Contract Documents; or
 - 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.
- C. Possible Price and Times Adjustments:
 - 1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
 - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
- 3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
- B. Not Shown or Indicated:
 - 1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the

consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
- b. by any other person for any other reason;
- 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
- 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 - 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 - 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 - 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 - 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 - 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup; and
 - 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

- 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
- 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's

interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.
- 6.05 Substitutes and "Or-Equals"
 - A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. "*Or-Equal*" *Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
- 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- 2. Substitute Items:
 - a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

- c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for the reasonable charges of Engineer for waking changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- 6.06 *Concerning Subcontractors, Suppliers, and Others*
 - A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be

required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner,

Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought

by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and

shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is

required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

- 6.17 *Shop Drawings and Samples*
 - A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.
 - 1. Shop Drawings:
 - a. Submit number of copies specified in the General Requirements.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
 - 2. Samples:
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
 - B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
 - C. Submittal Procedures:
 - 1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

- 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
 - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.
- 6.21 Delegation of Professional Design Services
 - A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
 - B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
 - C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
 - D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

- 7.01 *Related Work at Site*
 - A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
 - B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors between Owner and such utility owners and other contractors.
 - C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.

- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.
- 7.03 Legal Relationships
 - A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
 - B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
 - C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

- 8.01 Communications to Contractor
 - A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 8.02 Replacement of Engineer
 - A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.
- 8.03 Furnish Data
 - A. Owner shall promptly furnish the data required of Owner under the Contract Documents.
- 8.04 Pay When Due
 - A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.
- 8.05 Lands and Easements; Reports and Tests
 - A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 8.06 *Insurance*
 - A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.
- 8.08 Inspections, Tests, and Approvals
 - A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.
- 8.09 Limitations on Owner's Responsibilities
 - A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 8.10 Undisclosed Hazardous Environmental Condition
 - A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.
- 8.11 Evidence of Financial Arrangements
 - A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.
- 8.12 Compliance with Safety Program
 - A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

- 9.01 Owner's Representative
 - A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.
- 9.02 Visits to Site
 - A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or

continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Authorized Variations in Work

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.
- 9.07 Determinations for Unit Price Work
 - A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.
- 9.08 Decisions on Requirements of Contract Documents and Acceptability of Work
 - A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
 - B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
 - C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
 - D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.
- 9.09 Limitations on Engineer's Authority and Responsibilities
 - A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not

exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.
- 9.10 Compliance with Safety Program
 - A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

- 10.01 Authorized Changes in the Work
 - A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
 - B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

- A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data

shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

- 11.01 Cost of the Work
 - A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

- 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
- 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
- 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
- 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
- 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of

said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. Costs Excluded: The term Cost of the Work shall not include any of the following items:
 - 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not

limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances:
 - 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. Contingency Allowance:
 - 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to

the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.
- 12.03 Delays
 - A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

- 13.01 Notice of Defects
 - A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.
- 13.02 Access to Work
 - A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

- 1. repair such defective land or areas; or
- 2. correct such defective Work; or
- 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
- 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

- 14.01 Schedule of Values
 - A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.
- 14.02 Progress Payments
 - A. Applications for Payments:
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an

Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

- 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
- 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- B. *Review of Applications:*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
 - 3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or

involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.
- C. Payment Becomes Due:
 - 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
- 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.
- 14.03 Contractor's Warranty of Title
 - A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.
- 14.04 Substantial Completion
 - A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
 - B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
 - C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before

final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.
- 14.05 Partial Utilization
 - A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

- 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.
- 14.06 Final Inspection
 - A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.
- 14.07 Final Payment
 - A. Application for Payment:
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
 - 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
 - 3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.
 - B. Engineer's Review of Application and Acceptance:
 - 1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying

documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 - 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 - 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's repeated disregard of the authority of Engineer; or
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 - 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 - 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 - 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when

so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.
- 15.03 Owner May Terminate For Convenience
 - A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
 - B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days

to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

- 17.01 Giving Notice
 - A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

- 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
- 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.