REQUEST FOR PROPOSAL

Donor Recognition Installation
Fort Bend Technology Center

RFP-19-ND-005

NIGP Class Code(s): 906-40, 906-52, 915-48

RESPONSES ARE DUE BEFORE:
Thursday, June 13, 2019, 2:00 PM CST

POINT OF CONTACT:
Nereida Dominguez, CTPM
Texas State Technical College
Phone: (956)364-4429
nereida.dominguez@tstc.edu

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SECTION 1: GENERAL INFORMATION

1.1 Background of Texas State Technical College

Texas State Technical College ("TSTC" or "College") a state-supported two-year technical college and is the state's largest provider of technical education. TSTC was originally established in 1965 as the James Connally Technical Institute (JCTI), a two year college in the Texas A&M University System designed to meet the state's evolving workforce needs. In 1969, the State of Texas gained ownership of James Connally Air Force Base and renamed the college Texas State Technical Institute (TSTI), which became a separate state agency with its own Board of Regents, appointed by the governor. TSTC has been accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC) as a Level I institution since 1968. The College is an open enrollment institution with a full-time equivalent enrollment of approximately 12,000. In contrast with Texas's regionally-focused community colleges, TSTC has a statewide role and mission with a legislative mandate to focus specifically on highly specialized, advanced, and emerging technical and vocational areas leading to certificates or associate degrees.

In 2015, the College was granted single-accreditation status from SACS-COC**,** the regional body for the accreditation of degree-granting higher education institutions in the Southern states. TSTC central administration is located in Waco, Texas, the site of the flagship campus. The College services students throughout the state of Texas at campuses located in Abilene, Breckenridge, Brownwood, Fort Bend County, Harlingen, Marshall, North Texas (Red Oak), Sweetwater, Waco, and Williamson County.

1.2 Purpose of the Request for Proposals

Texas State Technical College (TSTC) ("Owner") is soliciting statements of proposals ("Proposals") for a Donor Recognition Installation ("Project"). The Project is to provide an atmosphere that is positive, informative, forward thinking and directs attention to current donors that have partnered with TSTC's vision. The information must be displayed in a compelling way that employs a combination of technologies, textures, and colors that will compel others to partner with TSTC. The exhibition must combine design, workmanship and artistry with the end purpose to recognize TSTC Donors and Community Partners.

1.3 Submission of Proposal

Pursuant to *Texas Government Code Title 10, Subtitle D, Chapter 2156.121-2158.127*, sealed proposals will be received until the date and time established as the submittal deadline. After the submittal deadline, proposals will be opened and only the names of Respondents that properly submitted a Proposal will be made public. Prices and other proposal details will only be divulged after the contract award, if one is made.

Proposals must be received before the hour and date specified as the submittal deadline. Any proposal received after the expiration of the submittal deadline will be immediately disqualified from consideration.

Proposals will not be accepted by telephone, fax, or email. Proposals will only be accepted at the address below:

Nereida Dominguez
Texas State Technical College
1902 N. Loop 499
Harlingen, Texas 78550
Phone: 956.364.4429
nereida.dominguez@tstc.edu

Submit one (1) original signed proposal and one (1) identical electronic copy of the original signed proposal including all of its contents ("Proposal"). The original Proposal should contain the mark "original" on the Proposal Cover Page. The electronic copy shall be submitted in a USB/Flash Drive or CD in the same envelope as the hard-copy original proposal.

Proposal must be enclosed in a sealed envelope (box or container) addressed as described above. The envelope must clearly identify the RFP number, submittal deadline, and the name and return address of the Respondent. Proposal and any other information submitted by a Respondent in response to this RFP shall become the property of TSTC and will not be returned.

TSTC will not provide "delivery or hand stamp" receipt of Proposal or proof of delivery of Proposal which are delivered by hand or courier.

Failure to comply with all requirements contained in this RFP may result in the rejection of the Proposal. Proposals that are qualified with conditional clauses, alterations, items not called for in the RFP, or irregularities of any kind are subject to rejection.

By submitting a Proposal in response to this RFP, Respondent acknowledges and accepts the evaluation process and that determination of the "best value" will require subjective judgments by TSTC.

1.4 Questions and Clarifications

All questions and clarifications regarding this RFP must be submitted in writing to Nereida Dominguez, at nereida.dominguez@tstc.edu no later than **Friday, May 31, 2019, 10:00 AM CST.** TSTC reserves the right to request clarification of any information contained in a proposal. Any clarifications or interpretations of this RFP that materially affect or change its requirements will be issued by TSTC as an Addendum. All such Addenda will be issued by TSTC before the submittal deadline as part of the RFP and Respondents shall acknowledge receipt of each Addendum to the RFP in proposal submission.

1.5 Schedule of Events

Issuance of RFP	Wednesday, May 22, 2019
Site Visit	Wednesday, May 29, 2019 2:00 PM -3:00 PM CST

Deadline for Written Questions	Friday May 31, 2019, 10:00 AM CST
Issuance of Addendum (if necessary)	Tuesday, June 04, 2019, 2:00 PM CST
Submittal Deadline	Thursday, June 13, 2019, 2:00 PM CST
Evaluation and Selection Period (tentative)	TBA
Interviews and Negotiations (optional)	TBA
Award/Issuance of Purchase Order (tentative)	TBA

1.6 Site Visit (Optional):

A walk-through of the lobby/wall location will be conducted at the Industrial Technology Center building located at 26706 Southwest Freeway, Rosenberg, Texas 77471 on May 29, 2019 at 2:00 PM – 3:00 PM CST, and will include the building facilities manager to answer questions. Questions and answers addressed during the site visit will be included in addenda issued on June 4, 2019.

1.7 Historically Underutilized Business Submittal Requirements

It is the policy of TSTC to promote full and equal opportunities for the contracting and subcontracting of Historically Underutilized Businesses (HUB) in accordance with *Texas Government Code*, Chapter 2161. This Chapter applies to all contracts for the purchase of goods and/or services with an expected value of $100,000 or more.

A HUB Subcontracting Plan Form (Included as Separate Attachment) must be filled out and returned with the Proposal to be considered responsive. If the Proposal does not include a HUB Subcontracting Plan, it shall be rejected as a material failure to comply with advertised specifications.

Search the State of Texas HUB Database for HUB vendors by the NIGP class and item at: https://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp

Additional minority and women owned business association resources are available for subcontracting notices at: http://comptroller.texas.gov/procurement/prog/hub/mwb-links-1/

Additional information and training regarding how to complete a HUB Sub-Contracting Plan can be found on the CPA Website at the following link: http://comptroller.texas.gov/procurement/prog/hub/hub-subcontracting-plan/

1.8 Subcontracting Approval

The Respondent shall perform the Contract with its own resources and those subcontractors identified in the Respondent's HUB Subcontracting Plan. In the event that the Respondent should determine that it is necessary or expedient to execute additional or alternative subcontracts for any of the performances under the Contract, the Respondent shall submit a revised HUB Subcontracting Plan for prior approval before executing any subcontracts.

In any subcontracts entered into by Contractor for the performance of the work, Contractor shall require the Subcontractor, to the extent of the work to be performed by the Subcontractor, to be bound to Contractor by the terms of the contract between Contractor and TSTC and to assume toward Contractor all of the obligations and responsibilities that Contractor, by the contract between Contractor and TSTC, assumes toward TSTC.

The Respondent shall manage all quality and performance, project management, and schedules for subcontractors. The Respondent shall be held solely responsible and accountable for the completion of all work for which the Respondent has subcontracted.

1.9 Proposal Requirements

Proposals cannot be altered after the proposal submittal deadline and must be firm for up to 90 days from the submittal deadline. Proposals cannot be withdrawn after submittal deadline without written approval by TSTC based on a written request to withdraw.

1.10 Signature, Certification of Proposer

Proposals submitted without the required forms and authorized signatures, as specified in Section 3(Proposal Requirements) and Section 6(Attachments) are subject to disqualification at TSTC's sole discretion.

1.11 Proposal Evaluation and Award Process

Proposals will be evaluated in accordance with Section 4.1 of the RFP.

1.12 Exceptions to RFP

Any exceptions to terms, conditions, and requirements of the RFP, including the Service Agreement, must be made in writing and noted in the Proposal. Please refer to Section 6, Form B for the required form.

1.13 No Reimbursement for Proposal Costs

TSTC specifically disclaims the responsibility and/or liability for all costs, expenses, or claims related to or arising out the proposers' participation in this RFP process, including but not limited to costs incurred as a result of preparing, copying, shipping, presenting, and/or clarifying their Proposal and the information relevant to the Proposal. Proposers acknowledge and accept that any costs incurred from proposers' participation in this RFP process shall be at their sole risk and responsibility.

1.14 Taxes

As an institute of higher education and agency of the State of Texas, TSTC is exempt from payment of Texas state and local sales or use taxes on all purchases (*Texas Tax Code, Section 151.309*). Do not include sales tax in Proposal. Tax exemption certificates are available upon request.

1.15 Reservation of Rights

TSTC reserves the right to modify the RFP, divide the Scope of Work into multiple parts, and reject any and all proposals to re-solicit for new proposals or temporarily or permanently abandon the RFP prior to the date on which TSTC's delegated authority executes a contract with the selected Proposer.

1.16 Texas Public Information Act

Proposers acknowledge that TSTC is an agency of the State of Texas, and is therefore required to comply with the Texas Public Information Act (*Texas Government Code, Chapter 552.001, et seq.*) TSTC strictly complies with all statutes, court decisions, and opinions of the Texas Attorney General with respect to disclosure of public information. All information, documentation, and other materials submitted in response to this RFP are considered non-confidential and/or non-proprietary and are subject to public disclosure. If proposals include proprietary data, trade secrets, or information proposers must specifically label such data, secrets, or information as follows: **"PRIVILEGED AND CONFIDENTIAL – PROPRIETARY INFORMATION"**.

1.17 Equal Opportunity

Proposer must be an equal opportunity employer. No person shall be discriminated against in employment because of race, color, religion, gender, national origin, disability, or age.

1.18 Accuracy of Information

The information presented in this RFP is complete and accurate to the best of TSTC's knowledge. If proposers have any questions in regards to this RFP, a written request should be submitted to Point of Contact before the Deadline for Written Questions specified herein.

1.19 Contract Award

Proposals to this RFP are offers to contract with TSTC. Proposals do not become contracts and are not binding until a written contract is executed by TSTC's delegated authority and awarded Proposer. Awarded Proposal will become incorporated by reference in the written contract. TSTC shall reserve the right to award a contract for part or all requirements in the RFP, to award multiple awards, or not award any contract, according to what is in the best interest of the TSTC.

1.20 Ethics Conduct

Any direct or indirect actions taken to unduly influence competitive purposes, to circumvent equal consideration for competitive bidders, or to disregard ethical and legal trade practices will disqualify proposers from current and future consideration for participation in TSTC purchase orders and contracts.

SECTION 2: SCOPE OF WORK

2.1 Overview

This Scope of Service specifies the minimum requirements for the Proposer to provide a Donor Recognition Installation at the Ft. Bend Campus in Rosenberg, Texas. Texas State Technical College will rely on the Proposer's expertise and knowledge in bringing this project to fruition. TSTC will rely on the awarded Respondent to provide TSTC the highest quality service at the best value to TSTC. Any additions to or differences from the minimum requirements for the Scope of Services requested shall be clearly identified in the Proposal response.

2.2 Scope of Work

Texas State Technical College (TSTC) ("Owner") is soliciting statements of proposals ("Proposals") for a Donor Recognition Installation ("Project"), in accordance with the terms, conditions, and requirements set forth in this Request for Proposals ("RFP"). The Proposer is to supply material, labor, and supervision required to perform the service. The requirement is for the respondent to provide a product that leads its viewers to want to follow others in partnering with TSTC as a Donor or Community Partner. The awarded Respondent will work with the owner to understand and insure the desired results are achieved.

Respondents, please note that the Donor Recognition Installation will cover a wall that spans across two floors. Reference **Attachment A** for pictures and drawings. The wall is not continuous so there will be two pieces to the project. We are relying on the Respondent's expertise on how to use both spaces so that it makes an impact to the beholder.

2.3 Scope of Project

2.3.1 Project Specifications:

1. Design Donor Recognition Installation that will be made of a combination of digital, static, and interchangeable installations that will span the first floor and second floor area of the Industrial Technology Center building at the TSTC in Fort Bend County campus. Design must include high-end material options.

2. Donor recognition objectives:

    1. Ability to have different recognition levels based on the levels of giving. Founding Level donor names to remain constant (static). Three additional levels to be designated to be interchangeable and digital.

    2. Recognize donors in a meaningful way.

    3. Reinforce TSTC's mission, history and future through compelling storytelling.

    4. Encourage prospective donors to be part of TSTC's legacy in Fort Bend County.

3. The benefits from installing a donor wall at the Fort Bend County campus include:

    1. Thanking donors for their part in driving TSTC's mission forward by creating opportunities for the surrounding communities, its businesses and students.

2. Generate revenue for The TSTC Foundation by enticing prospective and current donors to make cash, capital and in-kind donations.

3. Creating an outstanding physical display that uses storytelling to showcase TSTC's history and, more importantly, its future.

4. Purposeful use of this donor wall at this location will contribute directly to fuel donors to donate more to scholarship campaign, thus facilitating increased enrollment at this location.

4. Respondents to provide a detailed proposal in how the services will be provided. TSTC is interested in the Respondents approach, methods, quality, and customer service that the firm will employ to provide the services. Please describe in detail for each especially the quality and customer service aspect of your firm.

5. Respondents must include a working time line for project from beginning to end and adhere to that time line. If problems arise, we must be notified immediately so we may report to our leadership in effort to maintain transparency, accuracy and honesty.

2.3.3 Minimum Mandatory Qualifications:

1. Vendor must specialize in donor recognition projects with vast understanding of TSTC's objectives for the project overall.

2. Must be forward thinking and anticipate design trends that may easily look dated and lead us toward innovative displays that will endure the test of time.

3. Must understand the donor relations industry and have portfolio of successful projects on a large scale.

4. Contingent upon final design, installation and content management, vendor must be available to fulfill any technical needs within 24 hrs.

2.3.4 Pricing Sheet

Proposal must include a detailed Pricing Sheet to include cost of design, installation, yearly/quarterly maintenance, software licenses, content management fees, and all services Respondent intents to use to perform work, including hourly rates. Bid should include material options that could help reduce project costs. Respondents are to provide a detailed price list of all services provided based on the Scope of Work. Bid shall list out any additional fees, miscellaneous costs.

TSTC would like for the pricing sheet to be broken up into two sections, one for each piece of the wall (first floor and second floor). If there is a budget restraint, TSTC would like the option to kick off the project for a piece of the wall and complete the project starting next fiscal year.

Please include the following options in your price sheet:

1. Mid-range and high-end materials in bid

2. Bid with and without content management

3. Augmented reality option

2.4 TSTC Responsibilities:

Provide Drawings For: To gain more perspective on the installation wall, proposers are encouraged to review the following Exhibits: Drawing dimensions to be field verified by Respondents.

- Attachment A – Drawings and Pictures

2.5 Contractor Minimum Responsibilities

2.5.1 Awarded vendor(s) must provide Services between 7:00 AM – 7:00 PM, Monday - Friday unless special arrangements have been made with TSTC Facilities.

2.5.2 Awarded vendor(s) representative or supervisor shall check in with Contract Administrator prior to starting scheduled work.

2.5.3 Awarded vendor(s) shall maintain required insurance as noted in sample contract Section 5.

2.5.4 Reports

- Awarded vendor(s) must report to the Contract Administrator the list of all employees that will be on campus with verifiable copy of a background check for each employee (due per contract year) or when there is a change in staff.

- Awarded vendor(s) shall maintain a computerized log of activities performed and provide a written copy monthly.

- TSTC and Proposer will develop a schedule of values.

2.6 Mandatory Requirements/Conditions

2.6.1 Awarded vendor(s) must have at least three (3) years of experience in providing Services in a commercial setting.

2.6.3 Awarded vendor(s) must provide written documentation to TSTC of each warranty within thirty (30) days after completion of Services.

2.6.4 Awarded vendor(s) must provide proof of all required licenses and certifications.

2.6.5 Awarded vendor(s) must perform all Services in accordance with the latest edition of the TSTC's Uniform General Conditions.

2.6.6 All employees of Proposer(s) performing Services on TSTC properties must wear uniforms or

identification badges. No employee of the Proposer will be permitted on TSTC properties without proper identification.

2.6.7 Harassment: Under no circumstance will the University tolerate any form of verbal or non-verbal abuse, jeering, whistling, etc. directed toward College staff or students. The Proposer will be informed of any complaints and will be expected to permanently remove the problem employee from the job.

2.6.8 Smoking: All tobacco products, including smokeless tobacco, are prohibited on TSTC property at all times. This must be fully enforced by the Proposer.

2.6.9 Illegal Drugs and Alcohol: No alcoholic beverages or illegal drugs shall be brought on TSTC property at any time. Any workmen under the influence of either illegal drugs or alcohol or smelling of alcohol shall be permanently removed from the property by the Proposer.

2.6.10 Firearms/Weapons: Pursuant to Section 30.07 Penal Code, A person licensed under Subchapter H, Chapter 411, Government Code, may not enter any TSTC premises with a gun that is carried openly.

2.6.11 Restrooms: Under no conditions will any of the workmen be allowed to use restrooms within the existing College facilities except for the Physical Plant.

2.6.12 Awarded vendor(s) must coordinate the execution of Services with TSTC.

2.6.13 Awarded vendor(s) must include all costs related to providing the complete Services requested and reference the applicable contract number on all quotes.

2.6.14 TSTC will not be responsible for any Materials or Services not specifically detailed on the quote and approved through a formalized TSTC Purchase Order.

2.6.16 Awarded vendor(s) must provide all necessary bonds and permits as required as defined in the UGC.

2.7 Preferred Requirements/Conditions

2.7.1 Awarded vendor(s) should document their green initiative for providing responsible environmental practices.

2.8 Quality Measures

2.8.1 All Materials and Services delivered by Proposer(s) to TSTC are subject to inspection and approval by TSTC.

2.8.2 If for any reason TSTC is not satisfied with the Services, Proposer(s) must coordinate with TSTC to resolve the problem(s) with no additional charge, unless agreed upon in writing by TSTC.

2.9 Contract Administration

Contract Manager for this project TBD.

2.10 Change or Addition to Scope of Services

TSTC, without invalidating the contract, may make changes by altering, adding to, or deduction from the Scope of Services at any time during the term of the contract in order to meet current TSTC needs. The Contract pricing shall be adjusted accordingly, upon mutual agreement between TSTC and Contractor.

Should TSTC request additional services during the term of the Contract, an agreement to provide these services at the same price as quoted will be understood as included in the Respondent's submission.

SECTION 3: PROPOSAL REQUIREMENTS

The Proposal must be organized in sections and divided by tabs in the following format and contain all required information and forms in Sections 3.1, 3.2, and 3.3. Respondents should note that elaborate or unnecessary voluminous proposals are not desired. All forms must be completed, signed, and returned as part of the Respondent's proposal.

3.1 Execution of Offer

The Execution of Offer (Form A, Section 6) should be the first page of your Proposal. This form must be signed by a person authorized to sign for the Respondent.

3.2 Proposal Criteria (Each section should be in a separate tab)

Proposal Response (Tab 1) - Respondents to provide a detailed proposal in how the services will be provided. TSTC is interested in the approach, methods, quality and customer service that the firm will employ to provide the services.

Price Sheet (Tab 2) - Respondents are to provide a detailed price list of all services provided based on the Scope of Work. Refer to Section 2.3.4 Pricing Sheet.

Experience on similar higher education projects and experience with TSTC (Tab 3)-List three projects similar in size and scope completed in the past five years. Provide accurate customer contact information for these projects that will give reference for the work performed.

Project's teams' relative experience including sub-contractors and their likely roles (Tab 4)- Identify the key professionals that will be involved in the design phase, installation phase and after the sale phase. Specifically name the persons who will support the oversight efforts in installation. Provide a detailed history of their experience.

3.3 All Required Forms (Each form should be in a separate tab)

Form A: Execution of Offer [MUST BE SIGNED FOR RESPONSE TO BE ACCEPTED]

Form B: Deviation/Compliance Signature Form

Form C: Non-Collusion Statement

Form D: References

Form E: Inter-Local Agreement

Form F: HUB Sub-Contracting Plan [If proposal is over $100,000, must be signed]

Form G: Conflict of Interest

Form H: Non Bid Response [Optional]

SECTION 4: EVALUATION

Respondent is encouraged to propose terms and conditions offering the maximum benefit to TSTC in terms of (1) services to TSTC, (2) total overall cost to TSTC, and (3) expertise. Respondents should describe all educational, state and local government discounts, as well as any other applicable discounts that may be available to TSTC.

An evaluation team from TSTC will evaluate the Proposal. The evaluation of Proposal and the selection of a respondent will be based on the information provided by Respondent in its Proposal. TSTC may give consideration to additional information if TSTC deems such information relevant.

The criteria to be considered by TSTC in evaluating Proposal and selecting a Contractor will be those factors listed below.

Threshold Criteria Not Scored:

- Ability of TSTC to comply with laws regarding Historically Underutilized Businesses; and
- Ability of TSTC to comply with laws regarding purchases from persons with disabilities

Respondents shall carefully read the information contained in Section 4.1 and submit a complete statement of Proposals to all questions in Section 3.2. Incomplete Proposals will be considered non-responsive and subject to rejection.

	Criteria to be Evaluated	Points
Criteria One:	Proposal Response	20
Criteria Two:	Quality and Customer Service	20
Criteria Three:	Price Sheet	20
Criteria Four:	References on Previous Projects	20
Criteria Five:	Project's Teams Relative Experience including Sub-Contractors and their likely roles	20
Total		100

4.1 CRITERIA

TSTC may select the Proposal that offers the “best value” for the institution based on the published selection criteria and on its ranking evaluation. TSTC may first attempt to negotiate a contract with the selected respondent. TSTC may discuss with the selected respondent options for a scope or time modification and any price change associated with the modification. If TSTC is unable to reach a contract with the selected respondent, TSTC may formally end negotiations with that respondent and proceed to the next “best value” respondent in the order of the selection ranking until a contract is reached or all Proposals are rejected. TSTC is not obligated to select the Respondent offering the most attractive economic terms if that Respondent is not the most advantageous to TSTC overall, as determined by TSTC.

Best Value Criteria

- The quality, availability, and adaptability of the supplies, materials, equipment, or contractual services to the particular use required.
- The number and scope of conditions attached to the RFP.
- The ability, capacity, and skill of the proposer to perform the contract or provide the service required.
- Whether the proposer can perform the contract or provide the service promptly, or within the time required, without delay or interference.
- The character, responsibility, integrity, reputation, and experience of the proposer.
- The quality of performance of previous contracts or services;
- Any previous or existing noncompliance by the proposer with specification requirements relating to time of submission of specified data such as photos of equipment, samples, models, drawings, certificates, or other information; the sufficiency of the financial resources and ability of the proposer to perform the contract or provide the service;
- The ability of the proposer to provide future maintenance, repair parts, and service for the use of the contract.
- The purchase price:
- Any relevant criteria specifically listed in the RFP or request for proposals.

SECTION 5: SAMPLE CONTRACT

Any Contract awarded as a result of this RFP will contain the general terms and conditions listed below in this Section. Subcontractors are also obliged to comply with these provisions.

SERVICE AGREEMENT

This Service Agreement ("Agreement") is made and entered into by and between Texas State Technical College, an institution of higher education and an agency of the State of Texas ("TSTC") and Contractor.

WHEREAS, on May 22, 2019, TSTC issued a Request for Proposals #RFP-19-ND-005, for Donor Recognition Installation Ft. Bend Technology Center ("RFP"); and

WHEREAS, Contractor submitted a proposal dated June 13, 2019 ("Proposal") and Contractor was selected to provide Donor Recognition Installation Ft. Bend Technology Center;

Now, therefore, the parties agree as follows:

Section 1 Binding Contracts

1.01 This Agreement shall provide for Donor Recognition Installation ("Services") described in and in the manner required by the following documents, attached to and incorporated as part of this Agreement for all purposes:

(a) Service Agreement
(b) RFP and all attachments thereof
(c) Contractor's proposal
(d) Contractor's contract [if applicable]

1.02 In case any conflict between this Agreement and any of the documents specified in Section 1.01, the following shall control in this order of priority:

(a) Service Agreement
(b) RFP and all attachments thereof
(c) Contractor's proposal
(d) Contractor's contract [if applicable]

1.03 Contractor represents and warrants that it has the requisite qualifications, experience, personnel and other resources to perform this job in the manner required by this Agreement.

SECTION 2 TERM OF AGREEMENT

2.01 Initial Term: This initial term of this Agreement shall begin on the effective date as specified on the Notice of Award on the date signed by the TSTC delegated authority, who shall sign after the Contractor signs, and shall terminate not later than twelve (12) months after that date unless renewed or terminated in accordance with the terms of the Agreement.

SECTION 3 AUTHORIZED CONTRACT SUM

3.01 TSTC shall pay Contractor as provided herein the sum of XXX.XX per month (per service) upon the receipt of invoicing as specified in Section X.

SECTION 4 LOSS OF FUNDING

4.01 Performance of the Services specified under the Agreement may be dependent upon the appropriation and allotment of funds by the Texas State Legislature (the "Legislature") and/or allocation of funds by the Board of Regents of Texas State Technical College (the "Board"). If the Legislature fails to appropriate or allot the necessary funds, or the Board fails to allocate the necessary funds, then TSTC will issue written notice to Contractor and TSTC may terminate the Agreement without further duty or obligation hereunder. Contractor acknowledges that appropriation, allotment, and allocation of funds are beyond the control of TSTC.

SECTION 5 OWNERSHIP AND USE OF WORK MATERIAL

5.01 All drawings, specifications, plans, computations, sketches, data, records, photographs, tapes, renderings, models, publications, statements, accounts, reports, studies, and other materials prepared by Contractor or any Contractor's subcontractor in connection with the Services (collectively, "Work Material"), whether or not accepted or rejected by TSTC, are the property of TSTC and for its use and reuse at any time without further compensation and without any restrictions.

5.02 Contractor hereby grants and assigns to TSTC all rights and claims of whatever nature and whether now or hereafter arising in and to the Work Material and will cooperate fully with TSTC in any steps TSTC may take to obtain patent, copyright, trademark or like protections with respect to the Work Material.

5.03 TSTC will have the right to use the Work Material for the completion of the Services or otherwise. TSTC may, at all times, retain the originals of the Work Material.

5.04 The Work Material will not be used or published by Contractor or any other party unless expressly authorized by TSTC in writing. Contractor will treat all Work Material as confidential.

SECTION 6 SUBCONTRACTING WITH HISTORICALLY UNDERUTILIZED BUSINESSES

6.01 To the extent applicable, Contractor shall subcontract the Services to historically underutilized businesses ("HUB(s)") in accordance with Contractor's HUB Subcontracting Plan ("HSP") set forth in Exhibit X entitled "HUB Subcontracting Plan," attached and incorporated for all purposes. In accordance with the HSP, Contractor shall submit to TSTC information necessary to assure that Contractor is adhering to the HSP, and TSTC may conduct audits to assure that Contractor's is adhering to the HSP. No changes to the HSP may be made unless approved in writing by TSTC. Except as specifically provided in the HSP, Contractor shall not subcontract any of its duties or obligations under this Agreement, in whole or in part.

SECTION 7 INVOICING AND PAYMENT

7.01 Invoicing. Contractor will invoice TSTC for services performed. Each invoice will be accompanied by documentation that TSTC may reasonably request to support the invoice amount. Each invoice must reference TSTC's valid purchase order number and be sent to one of TSTC's billing addresses, Invoice E-Mail or Fax:

Texas State Technical College 3801 Campus Drive Waco, TX 76705 wacoinvoice@tstc.edu Fax: 254-867-3792	Texas State Technical College 1902 N. Loop 499 Harlingen, TX 78550 harlingeninvoice@tstc.edu Fax: 956-364-5173

7.02 Payment Terms. Notwithstanding any term or condition in the Agreement to the contrary, all invoices shall be payable to Contractor within thirty (30) days after TSTC's receipt of invoice and delivery of the Services in accordance with the Texas Prompt Payment Act, currently codified in Section 2251, Texas Government Code. Interest shall be payable by TSTC on all past due amounts at the rate specified in Section 2251.025 of such Code. Notwithstanding anything to the contrary, Contractor understands and acknowledges that TSTC's payment processes are stipulated by the Texas Prompt Payment Act, and nothing in the Agreement shall be construed to prevent or restrict TSTC from full compliance with such Act.

7.03 Payment of Debt or Delinquency to the State. Pursuant to Sections 2107.008 and 2252.903, Texas Government Code, Contractor agrees that any payments owing to Contractor under the Agreement may be applied directly toward any debt or delinquency that Contractor owes the State of Texas or any agency of the State of Texas regardless of when it arises, until such debt or delinquency is paid in full.

7.04 State Auditor's Office. Contractor understands that acceptance of funds under the Agreement constitutes acceptance of the authority of the Texas State Auditor's Office, or any successor agency (collectively, "Auditor"), to conduct an audit or investigation in connection with those funds pursuant to Sections 51.9335(c), 73.115(c) and 74.008(c), Texas Education Code. Contractor agrees to cooperate with the Auditor in the conduct of the audit or investigation, including without limitation providing all records requested. Contractor will include this provision in all contracts with permitted subcontractors.

7.05 Tax Exemption. Contractor understands and accepts that TSTC, as an agency of the State of Texas, is exempt from most State and Federal taxes. Contractor will not attempt to pay taxes on TSTC's behalf and TSTC will not reimburse contractor for any taxes paid. A tax exempt certificate is available to contractor upon request.

SECTION 8 INDEMNIFICATION

8.01 CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE STATE OF TEXAS, ITS OFFICERS AND EMPLOYEES, AND TEXAS STATE TECHNICAL COLLEGE, THE TEXAS STATE TECHNICAL COLLEGE SYSTEM, ITS OFFICERS, REGENTS, EMPLOYEES AND CONTRACTORS, FROM AND AGAINST ALL CLAIMS, ACTIONS, SUITS, DEMANDS, PROCEEDINGS, COSTS, DAMAGES, AND LIABILITIES, INCLUDING WITHOUT LIMITATION ATTORNEYS' FEES AND COURT COSTS, ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM ANY ACTS OR OMISSIONS OF CONTRACTOR OR ANY AGENT, EMPLOYEE, SUBCONTRACTOR, OR SUPPLIER OF CONTRACTOR IN THE EXECUTION OR PERFORMANCE OF THIS AGREEMENT. CONTRACTOR SHALL COORDINATE ITS DEFENSE WITH THE TEXAS ATTORNEY GENERAL AS REQUESTED BY TEXAS STATE TECHNICAL COLLEGE.

8.02 THIS PARAGRAPH IS NOT INTENDED TO AND SHALL NOT BE CONSTRUED TO REQUIRE CONTRACTOR TO INDEMNIFY OR HOLD HARMLESS THE STATE OF TEXAS, TEXAS STATE TECHNICAL COLLEGE OR TEXAS STATE TECHNICAL COLLEGE SYSTEM FOR ANY CLAIMS OR LIABILITIES RESULTING FROM THE NEGLIGENT ACTS OR OMISSION OF TEXAS STATE TECHNICAL COLLEGE, TEXAS STATE TECHNICAL COLLEGE SYSTEM OR ITS EMPLOYEES.

SECTION 9 INSURANCE

9.01 Consistent with its status as an independent contractor, Contractor will obtain and maintain in force for the duration of this Agreement and any extensions thereof, at Contractor's sole expense, and to cause its agents, suppliers and permitted Subcontractors (if any) to maintain at their sole expense, the insurance coverage obtained from companies authorized to do business in Texas or eligible surplus lines insurers operating in accordance with the Texas Insurance Code.

9.02 TSTC in no way warrants that these limits are sufficient to protect the Contractor from liabilities that might arise out of the performance of the Services. The Contractor will assess its own risks and, if it deems appropriate or prudent, maintain higher limits or broader coverages. The Contractor is not relieved of any liability or other obligations assumed by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types.

9.03 Contractor agrees to furnish insurance certificates reflecting the following coverage:

i. Workers Compensation: Statutory Limits
ii. Employer's Liability: $1,000,000 per accident and employee
iii. Commercial General Liability (including contractual liability): $2,000,000 per occurrence
iv. Product/Completed Ops: $2,000,000 aggregate
v. Auto Liability: $1,000,000 combined single limit
vi. Professional Liability: $1,000,000 (if applicable)
vii. All other insurance required by state or federal law

9.04. All policies (except Workers' Compensation) shall name TSTC as an Additional Insured. A Waiver of Subrogation in favor of TSTC and thirty (30) day notice of cancellation is required on all policies.

9.05 CERTIFICATES OF INSURANCE VERIFYING THE SPECIFIED REQUIREMENTS SHALL BE PROVIDED TO TSTC PROIR TO COMMENCEMENT OF SERVICES IN ACCORDANCE WITH THE NOTICES SECTION PROVIDED HEREIN. CONTRACTOR WILL MAINTAIN INSURANCE AS REQUIRED HEREIN FOR THE TERM OF THE AGREEMENT AND SHALL PROVIDE RENEWAL CERTIFICATES TO TSTC AS APPLICABLE.

9.06 If a policy contains deductible provisions, Contractor shall be responsible for payment of the deductible amount for any claim(s) or the pursuit of any claim(s) or asserted claim(s) against TSTC, its agents, employees or representatives.

9.07 CONTRACTOR ACKNOWLEDGES AND UNDERSTANDS THAT TSTC DOES NOT MAINTAIN AND WILL NOT OBTAIN INSURANCE OF ANY TYPE TO PROTECT CONTRACTOR AGAINST ANY LOSS, DAMAGE OR INJURY THAT MAY IN ANY WAY RESULT FROM CONTRACTOR'S PERFORMANCE OF THE SERVICES.

SECTION 10 BONDS [If applicable]

10.01 Contractor is required to tender to TSTC, in accordance with the Notices section herein, prior to commencing the Services, performance and payment bonds ("Bonds"), as required by Chapter 2253, Texas Government Code.

10.02 Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to TSTC and in compliance with the relevant provisions of the Texas Insurance Code. If Bonds are for more than ten (10) percent of the surety's capital and surplus, TSTC may require certification that the company has reinsured the excess portion with one or more reinsurers authorized to do business in the State. A reinsurer may not reinsure for more than ten (10) percent of its capital and surplus. If a surety loses its authority to do business in the State of Texas, Contractor shall, within thirty (30) days after such loss, furnish a replacement bond at no added cost to TSTC.

10.03 Contractor shall provide Bonds before the commencement of the Services described herein. Bonds shall be accompanied by a valid power of attorney (issued by the surety company and attached, signed and sealed with the corporate embossed seal, to the Bonds) authorizing the attorney-in-fact who signs the Bonds to commit the company to the terms of the Bonds, and stating any limit in the amount for which the attorney can issue a single bond.

10.04 IF FOR ANY REASON A STATUTORY PAYMENT OR PERFORMANCE BOND IS NOT HONORED BY THE SURETY, CONTRACTOR SHALL FULLY INDEMNIFY AND HOLD OWNER HARMLESS OF AND FROM ANY COSTS, LOSSES, OBLIGATIONS OR LIABILITIES IT INCURS AS A RESULT.

SECTION 11 CONFIDENTIALITY

11.01 All information owned, possessed, or used by TSTC that is communicated to, learned, developed or otherwise acquired by Contractor in the performance of services for TSTC, that is not generally known to the public, will be confidential and Contractor will not, beginning on the date of first association or communication between TSTC and Contractor and continuing throughout the term of this Agreement and any time thereafter, disclose, communicate or divulge, or permit disclosure, communication or divulgence, to another or use for Contractor's own benefit or the benefit of another, any confidential information, unless required by law.

11.02 Protected Data Security. For purposes of this section, “Service Provider” and Contractor are the same. "TSTC Confidential Information" means records maintained by TSTC, and records obtained by Service Provider from TSTC under this Agreement, including (1) records and data provided electronically, on paper, or via online access or e-mail, (2) records and data that Service Provider has converted into another format or medium (such as handwritten or electronic notes), and (3) records and data incorporated in any manner into Service Provider's records, files or data compilations. Service Provider shall protect the confidentiality of TSTC Confidential Information and comply with all statutory, regulatory and Agreement requirements. Service Provider’s protection of the confidentiality of TSTC Information will survive the termination of this Agreement. Service Provider shall keep and maintain complete and accurate records sufficient to allow TSTC, the Texas State Auditor's Office, the United States government, and their authorized representatives to determine Service Provider's compliance with this Agreement. Service Provider shall be responsible and liable for any damages resulting from a breach by Service Provider including damages and losses of third parties. Service Provider shall reimburse TSTC for any costs incurred by TSTC in reimbursing third parties damaged by Service Provider's breach and costs incurred in attempts by TSTC to limit third party losses resulting from Service Provider's breach. Service Provider agrees to accept liability for any damage to TSTC's hardware, software, or TSTC Information when such damage is caused by the actions of employees, contractors, sub-contractors or agents of Service Provider, whether or not the individual was an authorized User under this Agreement.

11.03 FERPA Protection of Confidential Data. For purposes of this section, “Service Provider” and Contractor are the same, and “Institution” and TSTC are the same. To the extent that 34 Code of Federal Regulations § 99.33(a)(2) is applicable, Service Provider agrees to abide by the limitations on re-disclosure of personally identifiable information from education records set forth in The Family Educational Rights and Privacy Act and with the terms set forth in this subsection. 34 FR 99.33 (a)(2) states that the officers, employees and agents of a party that receives education record information from the Institution may use the information, but only for the purposes for which the disclosure was made. Definition: Covered data and information (CDI) includes paper and electronic student education record information supplied by Institution, as well as any data provided by Institution’s students to the Service Provider. Acknowledgment of Access to CDI: Service Provider acknowledges that the Agreement allows the Service Provider access to CDI. Prohibition on Unauthorized Use or Disclosure of CDI: Service Provider agrees to hold CDI in strict confidence. Service Provider shall not use or disclose CDI received from or on behalf of Institution (or its students) except as permitted or required by the Agreement, as required by law, or as otherwise authorized in writing by Institution. Service Provider agrees not to use CDI for any purpose other than the purpose for which the disclosure was made. Upon termination, cancellation, expiration or other conclusion of the Agreement, Service Provider shall return all CDI to Institution or, if return is not feasible, destroy any and all CDI. Reporting of Unauthorized Disclosures or Misuse of Covered Data and Information: Service Provider shall, within one day of discovery, report to Institution any use or disclosure of CDI not authorized by this agreement or in writing by Institution. Service Provider’s report shall identify: (i) the nature of the unauthorized use or disclosure, (ii) the CDI used or disclosed, (iii) who made the unauthorized use or received the unauthorized disclosure, (iv) what Service Provider has done or shall do to mitigate any deleterious effect of the unauthorized use or disclosure, and (v) what corrective action Service Provider has taken or shall take to prevent future similar unauthorized use or disclosure. Service Provider shall provide such other information, including a written report, as reasonably requested by Institution.

11.04 Notwithstanding any provisions of this Agreement to the contrary, Contractor understands that TSTC will comply with the Texas Public Information Act, Chapter 552, Texas Government Code, as interpreted by judicial opinions and opinions of the Attorney General of the State of Texas. TSTC agrees to notify Contractor of a request for information related to Contractor’s work under this Agreement. The Contractor will cooperate with

TSTC in the production of documents responsive to the request. The Contractor may request that TSTC seek an opinion from the Attorney General of the State of Texas. However, TSTC will not honor Contractor's request for an opinion if the request is not based upon a reasonable interpretation of the Texas Public Information Act. Additionally, Contractor shall notify TSTC's Office of General Counsel of receipt of any third party requests for information that was provided by the State of Texas for use in conducting this Agreement. Contractor understands this Agreement and all data and other information generated or otherwise obtained in the performance of its responsibilities under this Agreement may be subject to the Texas Public Information Act. Contractor agrees to maintain the confidentiality of information received from the State of Texas during the performance of this Agreement, including information which discloses confidential personal information particularly, but not limited to, social security numbers.

SECTION 12 PUBLICITY

12.01 Except when defined as part of the Services, Contractor will not make any press releases, public statements, or advertisement referring to the Services or the engagement of Contractor as an independent Contractor of TSTC in connection with the Services, or release any information relative to the Services for publication, advertisement or any other purpose without the prior written approval of TSTC. All name, logos and symbols of TSTC ("TSTC Marks") are owned by the Board of Regents. No displays or other advertising may state/imply that TSTC endorses a particular Contractor's Services. Any use of TSTC marks must have prior written approval of TSTC. In specific instances Contractor can reference TSTC by name but only as a customer of Contractor and may appear on Contractor's promotional material or website so long as reference does not endorse Contractor. Contractor will obtain assurances similar to those contained in this Section from persons, contractors, and subcontractors retained by Contractor.

SECTION 13 NOTICES

13.01 Any and all notices, demands, or other communications required or desired to be given hereunder by any party shall be in writing and shall be validly given or made to another party if personally served, or if deposited in the United States mail, certified or registered, postage prepaid, return receipt requested. If such notice or demand is served personally, notice shall be deemed constructively made at the time of such personal service. If such notice, demand or other communication is given by mail, such notice shall be conclusively deemed given five days after deposit thereof in the United States mail addressed to the party to whom such notice, demand or other communication is to be given at the addresses as listed below. Any party hereto may change its address for purposes of this paragraph by written notice given in the manner provided above.

TSTC: [Will Insert Department Name, Title, Address]

With copies to:
TSTC Procurement Division
Office of Contract Administration
3801 Campus Drive, Waco, TX 76705
ContractAdmin@tstc.edu

Contractor: [Will Insert Name, Title, Address]

SECTION 14 DISPUTE RESOLUTION

14.01 To the extent that Chapter 2260, Texas Government Code, as it may be amended from time to time ("Chapter 2260"), is applicable to this Agreement and is not preempted by other applicable law, the dispute resolution process provided for in Chapter 2260 shall be used, as further described herein, by TSTC and Contractor to attempt to resolve any claim for breach of contract made by Contractor:

14.02 Contractor's claims for breach of this Agreement that the parties cannot resolve pursuant to other provisions of this Agreement or in the ordinary course of business shall be submitted to the negotiation process provided in subchapter B of Chapter 2260. To initiate the process, Contractor shall submit written notice, as required by subchapter B of Chapter 2260, to TSTC in accordance with the notice provisions in this Agreement. Contractor's notice shall specifically state that the provisions of subchapter B of Chapter 2260 are being invoked, the date and nature of the event giving rise to the claim, the specific Agreement provision that TSTC allegedly breached, the amount of damages Contractor seeks, and the method used to calculate the damages. Compliance by Contractor with subchapter B of Chapter 2260 is a required prerequisite to Contractor's filing of a contested case proceeding under subchapter C of Chapter 2260. The Sr. Executive Director of Procurement of TSTC, or such other officer of TSTC as may be designated from time to time by TSTC, by written notice thereof to Contractor in accordance with the notice provisions in this Agreement, shall examine Contractor's claim and any counterclaim and negotiate with Contractor in an effort to resolve such claims.

14.03 If the parties are unable to resolve their disputes under subparagraph (a) of this section, the contested case process provided in subchapter C of Chapter 2260 is Contractor's sole and exclusive process for seeking a remedy for any and all of Contractor's claims for breach of this Agreement by TSTC.

14.04 Compliance with the contested case process provided in subchapter C of Chapter 2260 is a required prerequisite to seeking consent to sue from the Legislature under Chapter 107 of the Texas Civil Practices and Remedies Code. The parties hereto specifically agree that (i) neither the execution of this Agreement by TSTC nor any other conduct, action or inaction of any representative of TSTC relating to this Agreement constitutes or is intended to constitute a waiver of TSTC's or the state's sovereign immunity to suit and (ii) TSTC has not waived its right to seek redress in the courts.

14.05 The submission, processing and resolution of Contractor's claim is governed by the published rules adopted by the Texas Attorney General pursuant to Chapter 2260, as currently effective, hereafter enacted or subsequently amended.

14.06 TSTC and Contractor agree that any periods set forth in this Agreement for notice and cure of defaults are not waived.

SECTION 15 SOFTWARE PROVISIONS [If applicable]

15.01 Access by Individuals with Disabilities. Contractor represents and warrants ("EIR Warranty") that the electronic and information resources and all associated information, documentation, and support that it provides to TSTC under this Agreement (collectively, "EIRs") comply with the "Accessibility Standards" set forth in Title 1, Part 10, Rules 213.30 and 213.36 of the Texas Administrative Code. To the extent Contractor becomes aware that the EIRs, or any portion thereof, do not satisfy the EIR Warranty, then Contractor represents and warrants that it will, at no cost to TSTC, either (1) perform all necessary remediation to make the EIRs satisfy the EIR Warranty; or (2) replace the EIRs with new EIRs that satisfy the EIR Warranty. Should TSTC notify Contractor in writing that the EIRs, or any portion thereof, do not comply with the EIR Warranty, and such non-compliance continues for a period of sixty days after such written notice to Contractor, then TSTC may terminate this Contract and Contractor will refund to TSTC, within thirty (30) days after the termination date, a prorated amount of any fees paid by TSTC for Services not yet properly rendered.

SECTION 16 INDEPENDENT CONTRACTOR

16.01 Contractor warrants, represents, covenants, and agrees that it is duly organized, validly existing and in good standing under the laws of the state of its incorporation or organization and is duly authorized and in good standing to conduct business in the State of Texas, that it has all necessary power and has received all necessary approvals to execute and deliver the Contract, and the individual executing the Contract on behalf of Contractor has been duly authorized to act for and bind Contractor.

16.02 For all purposes of this Agreement and notwithstanding any provision of this Agreement to the contrary, Contractor is an independent contractor and is not a state employee, partner, joint venturer, or agent of TSTC. Contractor will not bind nor attempt to bind TSTC to any Agreement or contract. As an independent contractor, Contractor is solely responsible for all taxes, withholdings, and other statutory or contractual obligations of any sort, including but not limited to workers' compensation insurance. Contractor is responsible for its conduct of business operations, including but not limited to employee salaries, benefits, and travel expenses.

SECTION 17 SUBCONTRACTORS

17.01 Notwithstanding any other provisions contained herein, if Contractor intends to subcontract all or a portion of the Services, Contractor must identify all proposed Subcontractors ("Subcontractors") to TSTC in its submitted Proposal. Contractor will not delegate any of its duties or responsibilities under the Agreement to any Subcontractors, except as expressly provided for in the Agreement. Subcontractors providing Services under the Agreement must meet the same requirements and level of experience required of the Contractor. The utilization of any Subcontractor for provided Services under the Agreement will not relieve the Contractor of the responsibility for ensuring the requested Goods or Services are provided in accordance with the requirements herein.

SECTION 18 BACKGROUND CHECKS AND IDENTIFICATION

18.01 DPS Background Checks. Contractor is required to do a Texas Department of Public Safety background check on each and every person on TSTC premises. The Contractor also ensures that any employees or assigns that are noted on the Department of Public Safety background reporting are in compliance with federal laws and the laws of the State of Texas.

18.02 Sexual Offender Search. TSTC recognizes that some sexual offenders, after having served their sentence, are no longer considered to be a threat to society, and the State of Texas has approved them to work in higher education environments. Contractor will ensure that it, and all of its subcontractors and assigns that will be on TSTC property have been searched on the Texas Public Sex Offender Registry and National Sex Offender Public Website at https://records.txdps.state.tx.us/SexOffender/ and http://www.nsopw.gov/ ("Registries"). The Contractor will ensure that any employees or subcontractors found on the Registries or any other state or federal sexual offender registry are in compliance with federal laws and the laws of the State of Texas regarding sexual offenders. Any employees or Subcontractors that are shown on the sexual offender registries must be documented. Documentation shall include explanation and verification of any employees or Subcontractors that appear on the sexual offender lists; and show that those on the lists have met the requirements of the State of Texas to work on the property of higher education institutions.

18.03 Access and Identification. All personnel, while on TSTC premises, must have all of the following:

1. A valid State of Texas ID or driver's license
2. A photo ID bearing:
    a. the name of the company for which the individual works,
    b. the individual's name, and
    c. a recent photo of the individual.

SECTION 19 COMPLIANCE WITH LAW

19.01 Contractor warrants that it will obtain, maintain in effect, and pay the cost for all licenses, permits, or certifications that may be necessary for Contractor's performance of this Agreement.

19.02 Contractor will be responsible for the payment of all taxes, excises, fees, payroll deductions, employee benefits (if any), fines, penalties or other payments required by federal, state, or local law or regulation in connection with Contractor's performance of this Agreement.

19.03 Contractor will comply with, and will be responsible for requiring its officers and employees to comply with, all applicable federal, state, and local laws and regulations, and the rules and regulations of TSTC.

19.04 Tax Delinquency. If Contractor is a taxable entity as defined by Chapter 171, Texas Tax Code, then Contractor certifies that it is not currently delinquent in the payment of any taxes due under such Chapter, or that Contractor is exempt from the payment of those taxes, or that Contractor is an out-of-state taxable entity that is not subject to those taxes, whichever is applicable.

19.05 Certain Contracts Prohibited. Pursuant to Sections 2155.004 and 2155.006, Texas Government Code, Contractor certifies that the individual or business entity named in the Contract is not ineligible to receive the award of or payments under the Contract and acknowledges that the Contract may be terminated and payment withheld if these certifications are inaccurate.

19.06 Texas Family Code Child Support Certification. To the extent applicable, Pursuant to Section 231.006, Texas Family Code, Contractor certifies that it is not ineligible to receive the award of or payments under the Contract and acknowledges that the Contract may be terminated and payment may be withheld if this certification is inaccurate.

19.07 Franchise Tax Certification. Contractor certifies that (a) it is not currently delinquent in the payment of any franchise taxes due under Chapter 171 of the Texas Tax Code, or (b) that the Contractor is exempt from the payment of such taxes, or (c) that the Contractor is an out-of-state corporation or limited liability company that is not subject to the Texas Franchise Tax, whichever is applicable.

19.08 Prohibition on Contracts with Companies Boycotting Israel. Pursuant to the provisions of Chapter 2270 of the Texas Government Code, Contractor verifies that it does not boycott Israel and will not boycott Israel during the term of the Agreement.

19.09 Products and Materials Produced in Texas. If Contractor will provide services under the Agreement, Contractor covenants and agrees that in accordance with Section 2155.4441, Texas Government Code, in performing its duties and obligations under the Agreement, Contractor will purchase products and materials produced in Texas when such products and materials are available at a price and delivery time comparable to products and materials produced outside of Texas.

19.10 Ethics. TSTC officers and employees may not have a direct or indirect interest, including financial and other interests, engage in a business transaction or professional activity, or incur any obligation of any nature, that is in substantial conflict with the proper discharge of the officer's or employee's duties in the public interest. A TSTC officer or employee will not: 1) accept or solicit any gift, favor, or service that might reasonably tend to influence the officer or employee in the discharge of official duties or that the officer or employee knows, or should know, is being offered with the intent to influence the officer's or employee's official conduct; 2) accept other employment or engage in a business or professional activity that the officer or employee might reasonably expect would require or induce the officer or employee to disclose confidential information acquired by reason of the official position; 3) accept other employment or compensation that could reasonably be expected to impair the officer's or employee's independence of judgment in the performance of their official duties; 4) make personal investments that could reasonably be expected to create a substantial conflict between the officer's or employee's private interest and the public interest; or 5) intentionally or knowingly solicit, accept or agree to accept any benefit for having exercised the officer's or employee's official powers or performed their official duties in favor of another. TSTC may not use appropriated money to compensate a state employee who violates a standard of conduct. In accordance with the Texas Constitution, an officer or employee of the state may not, directly or indirectly, profit by or have a pecuniary interest in the preparation, printing, duplication, or sale of a publication or other printed material issued by a department or agency of the executive branch. A person who violates this provision may be dismissed from TSTC employment.

19.11 Illegal Dumping [If applicable]

The Contractor shall ensure that it and all of its Subcontractors prevent illegal dumping of litter, hazardous waste, matches, medical waste, solid waste, chemicals, petroleum, rubbish, sludge, or other materials in accordance with Title 5, Texas Health and Safety Code, Chapter 365.

SECTION 20 TERMINATION

20.01 Either party to this Agreement may terminate this Agreement, without cause, upon 30 days written notice to the other party.

20.02 If either party is in default of performance of any material obligation under this Agreement, the party that is not in default may give written notice of the default to the other party and if the party notified fails to correct the default within thirty (30) days or other specified period fails to satisfy the party giving notice that the default does not exist, the party giving notice may terminate this Agreement upon expiration of the thirty (30) day or other specified period.

20.03 Notwithstanding the termination or expiration of this Agreement, the provisions of this Agreement regarding indemnification, confidentiality, records, right to audit, dispute resolution, invoice and fees verification, and default shall survive the termination or expiration dates of this Agreement.

20.04 The termination of this Agreement shall not affect any right or remedy that has accrued to either party at the time of termination.

20.05 If applicable, upon termination of this Agreement, Contractor shall deliver to the appropriate representative of TSTC all Work Material related to the services performed by Contractor together with any keys, identification badges, or equipment owned by TSTC.

SECTION 21 OTHER TERMS AND CONDITIONS

21.01 Assignment. Neither party may assign this Agreement, in whole or in part, without the prior written consent of the other party.

21.02 Venue; Governing Law. As required by Chapter 135 of the Texas Education Code, McLennan County or Travis County, Texas, will be the proper place of venue for suit on or in respect of the Agreement. The Agreement and all of the rights and obligations of the parties hereto and all of the terms and conditions hereof will be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas.

21.03 Counterparts. This Agreement may be executed in one or more counterparts and may be electronically transmitted. Each counterpart shall be deemed an original and all of which shall constitute one and the same document.

21.04. Entire Agreement. Notwithstanding the provisions in Section 1, this Agreement supersedes all prior agreements, written or oral, between Contractor and TSTC and will constitute the entire Agreement and understanding between the parties with respect to the subject matter hereof. The Agreement and each of its provisions will be binding upon the parties and may not be waived, modified, amended or altered except in writing signed by TSTC and Contractor.

21.05 Captions. The captions of sections and subsections in this Agreement are for convenience only and will not be considered or referred to in resolving questions of interpretation or construction.

21.06 Force Majeure. Neither party to this Agreement will be liable or responsible to the other for any loss or damage or for any delays or failure to perform due to causes beyond its reasonable control including, but not limited to, acts of God, strikes, epidemics, war, riots, flood, fire, sabotage, or any other circumstances of like character ("force majeure occurrence").

21.07 Severability. If any provision of this Agreement is held by a court of law to be illegal, invalid or unenforceable, (a) that provision shall be deemed amended to achieve as nearly as possible the same economic effect as the original provision, and (b) the legality, validity and enforceability of the remaining provisions of this Agreement shall not be affected or impaired thereby.

21.08 Waivers. No delay or omission by either party in exercising any right or power arising from non-compliance or failure of performance by the other party with any of the provisions of this Agreement shall impair or constitute a waiver of any such right or power. A waiver by either party of any covenant or condition of this Agreement shall not be construed as a waiver of any subsequent breach of that or of any other covenant or condition of the Agreement.

IN WITNESS WHEREOF, duly authorized representatives of the parties have agreed to the terms of this Agreement and thereby execute and deliver this Agreement to the other party.

Texas State Technical College	Contractor
By: _____	_____
(Authorized Signature)	(Authorized Signature)
_____	_____
(Printed Name)	(Printed Name)
_____	_____
(Title)	(Title)
_____	_____
(Date)	(Date)

Exhibit A:

TSTC's RFP-19-ND-005

Exhibit B:

Scope of Work and Drawings for the project, prepared by the TSTC entitled, “Donor Recognition Installation” (hereinafter referred to as the “Project”).

Exhibit C

Contractor's proposal

Exhibit D

Historically Underutilized Business (HUB) Subcontracting Plan

Exhibit X

Contractor's contract [if applicable]

END OF SAMPLE CONTRACT

SECTION 6: FORMS

TSTC Requires that the Respondent complete and return the following forms as part of their proposal.

- FORM A: Execution of Offer
- FORM B: DEVIATION/COMPLIANCE SIGNATURE FORM
- FORM C: NON-COLLUSION STATEMENT
- FORM D: REFERENCES
- FORM E: INTERLOCAL AGREEMENT CLAUSE
- FORM F: HUB Subcontracting Plan (MUST BE SIGNED)
- FORM G: Conflict of Interest
- FORM H: No Bid Response (Optional)

FORM A: Execution of Offer

The undersigned, in submitting this Proposal and endorsement of same, represents that he/she is authorized to obligate his/her firm, that he/she is an equal opportunity employer and will not discriminate with regard to race, color, religion, sex, national origin, age or disability; that he/she will abide by all the policies and procedures of TSTC; and that he/she has read the entire RFP package, is aware of the covenants contained herein and will abide by and adhere to the written requirements in ***ALL*** sections of the RFP. **Failure to manually sign this RFP Response Form will be reason for the RFP to be rejected.**

SUBMITTED BY:

Firm: _____
(OFFICIAL Firm Name)

MUST BE SIGNED IN INK TO BE CONSIDERED RESPONSIVE

By: _____
(Original Signature)

Name: _____
(Typed or Printed Name)

Title: _____ _____
(Type or Printed Title) (Date)

Contact Representative: _____

Address: _____

City/ST/Zip: _____

Phone #: _____ Fax #: _____

Email: _____

Taxpayer Identification #: _____

Prompt Payment Discount: _____% _____ Days

IS YOUR COMPANY A HUB VENDOR? _____ WHAT CATEGORY? _____

I hereby acknowledge receipt of the following addenda which have been issued and incorporated into the RFP Document. (*Please initial in ink beside each addenda received. If none received, leave blank*)

Addendum No. 1_____ Addendum No. 3 _____

Addendum No. 2_____ Addendum No. 4 _____

FORM B: DEVIATION/COMPLIANCE SIGNATURE FORM

If the undersigned Firm intends to deviate from the Specifications listed in this RFP document or Contract, all such deviations must be listed on this page, with complete and detailed conditions and information included or attached. TSTC will consider any deviations in its RFP award decisions, and TSTC reserves the right to accept or reject any RFP based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this form, the Firm assures TSTC of his/her full compliance with the Terms and Conditions, Specifications, and all other information contained in this RFP document.

☐ No Deviation

☐ Yes Deviations

Firm's Name: _____

Authorized Company Official's Name: _____
(Typed or printed)

Title of Authorized Representative: _____
(Typed or printed)

Signature of Authorized Company Official: _____

Date Signed: _____

If yes is checked, please list below. Attach additional sheet(s) if needed.

_____

_____

_____

_____

_____

_____

_____

_____

FORM C: NON-COLLUSION STATEMENT

"The undersigned affirms that he/she is duly authorized to execute this RFP, that this company, corporation, firm, partnership or individual has not prepared this RFP in collusion with any other proposer, and that the contents of this RFP as to prices, terms or conditions of said RFP have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this RFP."

Firm's Name: _____

Firm's Name: _____

Authorized Company Official's Name:

(Typed or printed)

_____

Title of Authorized Representative:
(Typed or printed)

_____

Signature of Authorized Company Official: _____

Date Signed: _____

Firm hereby assigns to purchaser any and all claims for overcharges associated with this RFP which arise under the antitrust laws of the United States, 15 USCA Section 1 and which arise under the antitrust laws of the State of Texas, Business and Commerce Code, Section 15.01.

FORM D: REFERENCES

1. Company Name: _____
   Address: _____
   _____
   _____

   Business Phone: _____ Fax: _____
   Contact Person: _____ Email: _____

   Description of project or work completed: _____
   _____
   _____

2. Company Name: _____
   Address: _____
   _____
   _____

   Business Phone: _____ Fax: _____
   Contact Person: _____ Email: _____

   Description of project or work completed: _____
   _____
   _____

3. Company Name: _____
   Address: _____
   _____
   _____

   Business Phone: _____ Fax: _____
   Contact Person: _____ Email: _____

   Description of project or work completed: _____
   _____
   _____

REFERENCES

4. Company Name: _____
   Address: _____
   _____
   _____

   Business Phone: _____ Fax: _____
   Contact Person: _____ Email: _____

   Description of project or work completed: _____
   _____
   _____

5. Company Name: _____
   Address: _____
   _____
   _____

   Business Phone: _____ Fax: _____
   Contact Person: _____ Email: _____

   Description of project or work completed: _____
   _____
   _____

FORM E: Inter-Local Agreement Clause

INTERLOCAL AGREEMENT
CLAUSE

Several governmental entities around the Texas State Technical College have indicated an interest in being included in this contract. Should these governmental entities decide to participate in this contract, would you, (the vendor) agree that all terms, conditions, specifications, and pricing would apply?

Yes_____ No _____

If you (the Vendor) checked yes, the following will apply:

Governmental entities utilizing interlocal agreements with the Texas State Technical College will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than Texas State Technical College will be billed directly to that governmental entity and paid by that governmental entity. Texas State Technical College will not be responsible for another governmental entity's debts. Each governmental entity will order its own material/service as needed.

For information regarding the Educational Purchasing Cooperative of North Texas, please visit their website at the following address: http://www.epcnt.com/INDEX.htm.

Company Name: _____
(Typed or printed)

Title of Authorized Representative:
_____
(Typed or printed)

Signature of Authorized Company Official: ____ Date Signed:

FORM F - HUB Subcontracting Plan (MUST BE SUBMITTED FOR PROPOSAL TO BE ACCEPTED)

https://drive.google.com/a/tstc.edu/file/d/1D1eTnqzJ4GaPmQex-YQjLTR4nuhCzB4-/view?usp=sharing

Form G- Conflict of Interest

https://drive.google.com/a/tstc.edu/file/d/1Zb8fNaEwtbkYCUWF4z8gbO7CZ-JQIoJy/view?usp=sharing

FORM H – No Bid Response (Optional)

Donor Recognition Installation Fort Bend Technology Center
RFP No.: RFP-19-ND-005

If your firm is unable to submit a proposal at this time, complete this form and return it to:

Texas State Technical College
Building SSC
1901 N. Loop 499
Harlingen, Texas 78550
nereida.dominguez@tstc.edu

by the date/time for submission of this solicitation.

I/WE DID NOT SUBMIT A PROPOSAL FOR THE FOLLOWING REASONS:
(Please place an X by all the reasons that apply)

1. ___ Do not supply the requested product/service.

2. ___ Quantities offered or scope of job is TOO SMALL to be supplied by my company.

3. ___ Qualities offered or scope of job is TOO LARGE to be supplied by my company.

4. ___ Specifications are "too constrictive" or appear to be written around a proprietary product.

5. ___ Time frame for responding was too short. (Please elaborate on your primary reason for this judgment.)

6. ___ Other reasons: _____

_____

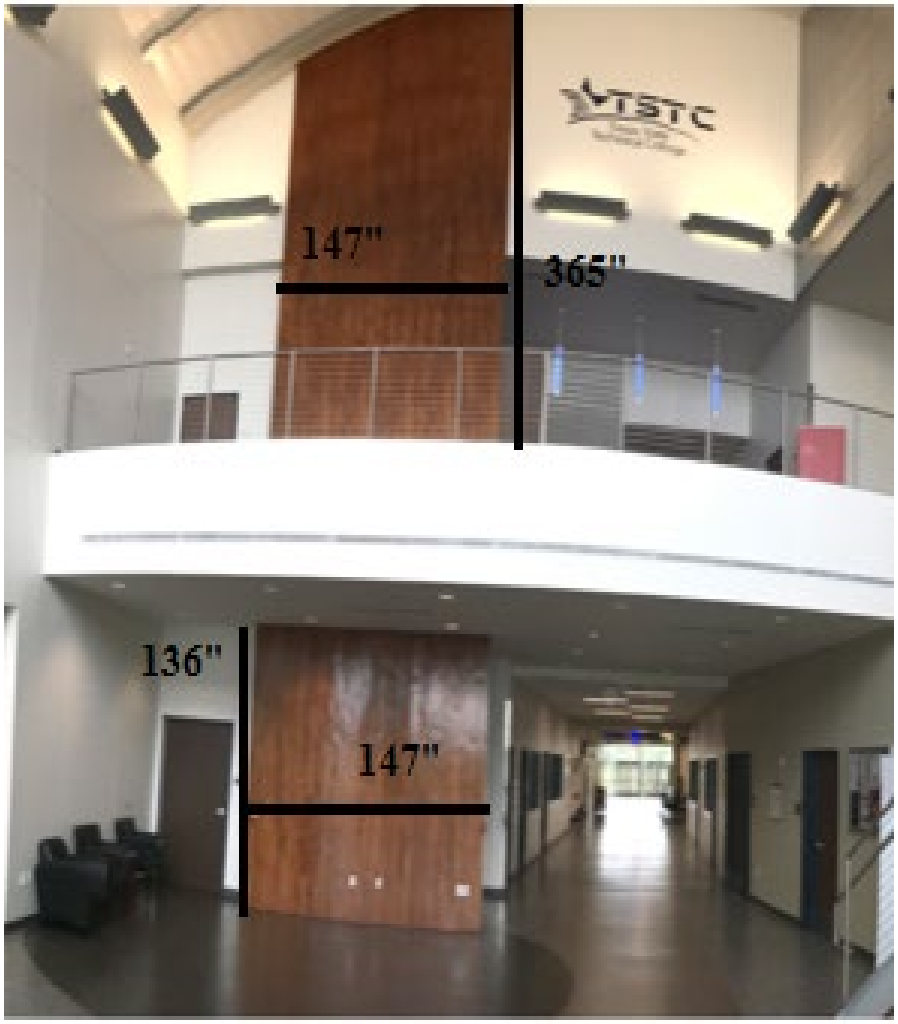
_____

BY: _____
Vendor Signature Date

_____
Printed Name & Title Phone No.

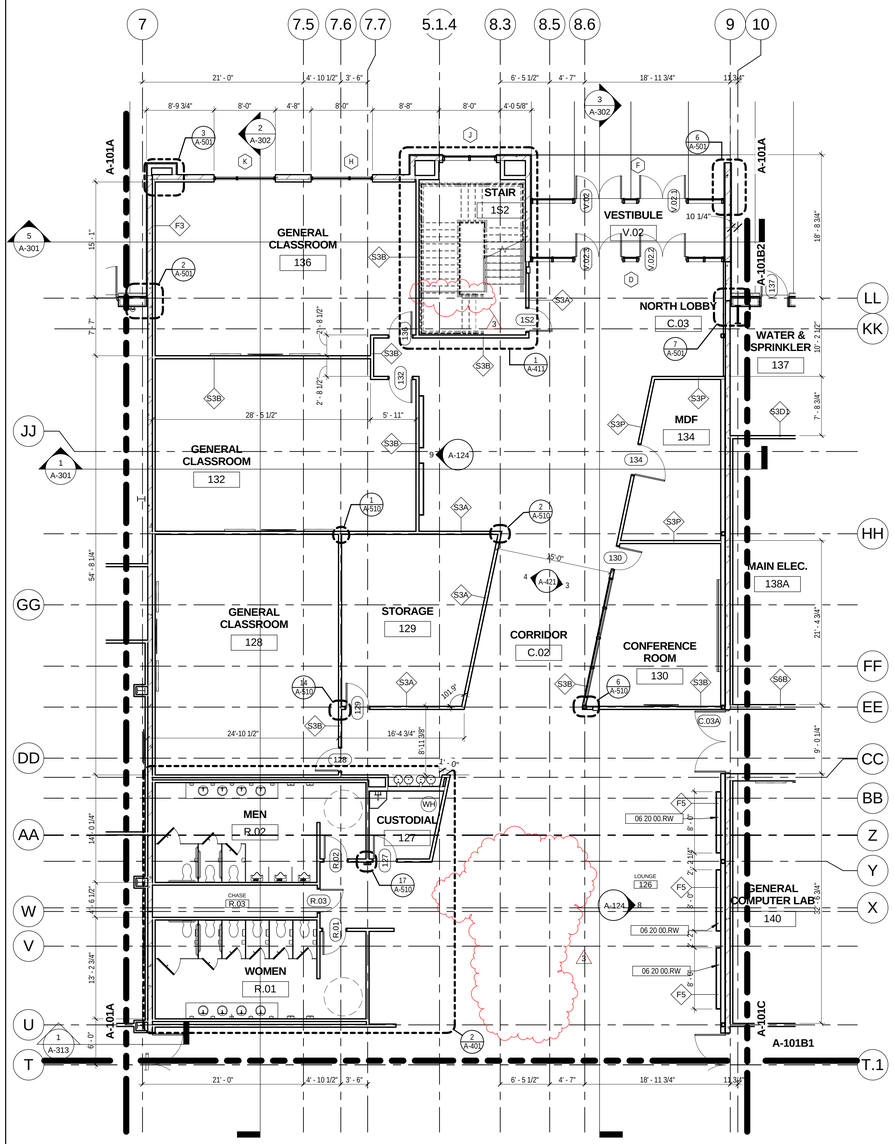
_____
Company Name Fax No.

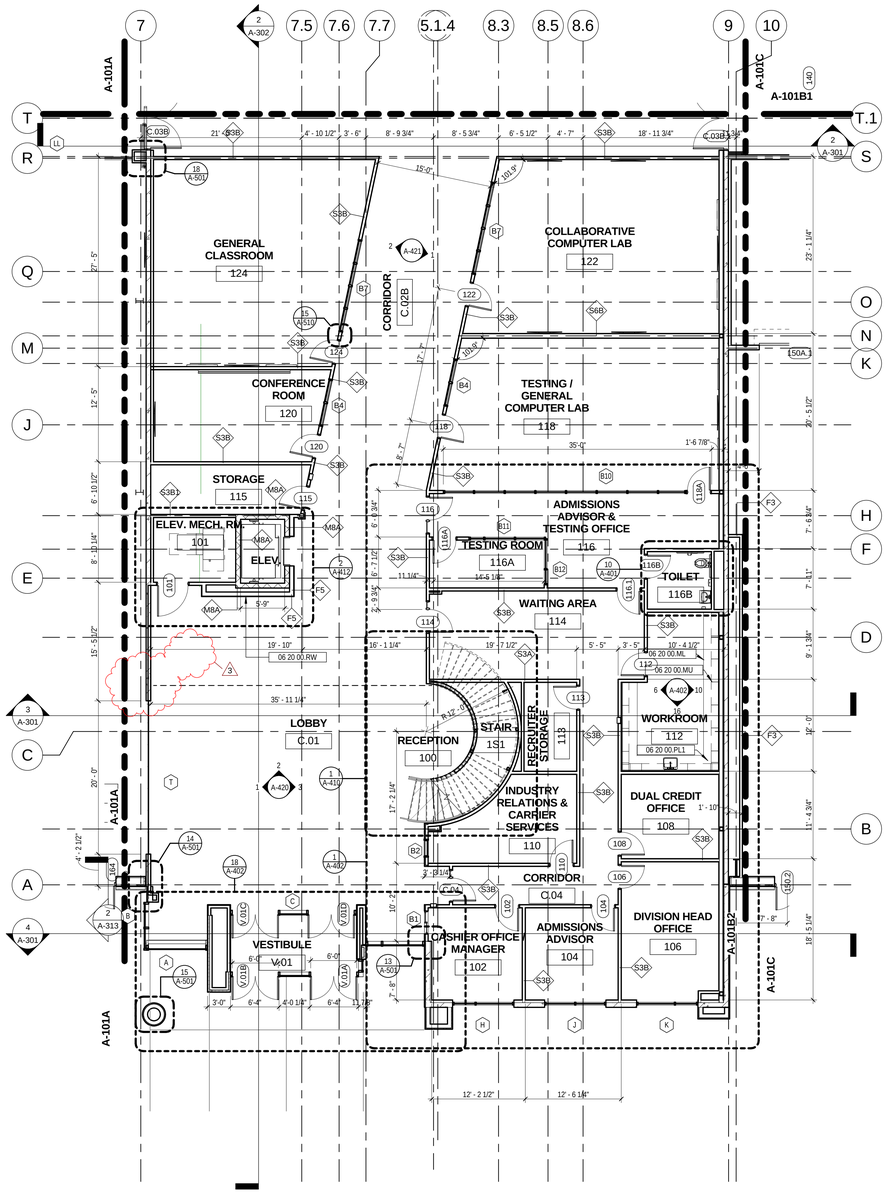
ATTACHMENT A – Pictures and Drawings




TSTC
Texas State
Technical College


Welcome
to TSTC in
Fort Bend
County
TSTC
Texas State
Technical College
TECHNICALLY BETTER.





GENERAL ARCHITECTURAL DRAWING NOTES

1. VERIFY DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH AFFECTED WORK.
2. BUILDING FLOOR PLAN DIMENSIONS ARE REFERENCED FROM STRUCTURAL GRID, FACE OF CONCRETE, FACE OF MASONRY, OR FACE OF FINISHED SURFACE, UNLESS NOTED OTHERWISE.
3. REFLECTED CEILING PLAN DIMENSIONS ARE REFERENCED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE. CEILING HEIGHTS ARE DIMENSIONED FROM FLOOR TO FINISHED CEILING HEIGHT.
4. CASEWORK, PLUMBING FIXTURES, TOILET PARTITIONS, AND OTHER FIXTURES AND EQUIPMENT ARE DIMENSIONED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE.
5. DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
6. DIMENSIONS NOTED AS "CLEAR" REQUIRE SPECIFIC COORDINATION BETWEEN DISCIPLINES AND/OR MANUFACTURERS.
7. DRAWINGS NOTED AT "N.T.S." ARE NOT TO SCALE.
8. DO NOT SCALE DRAWING. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CLARIFICATION IS REQUIRED IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS, CONTACT THE ARCHITECT.
9. NOTES OR DIMENSIONS LABELED "TYPICAL" SHALL APPLY TO SITUATIONS THAT ARE THE SAME OR SIMILAR.

Keynote Legend - By Sheet

Key Value	Keynote Text
06 20 00.ML	MILLWORK LOWER CABINET, REF. ELEVATIONS
06 20 00.MU	MILLWORK UPPER CABINET, REF. ELEVATIONS
06 20 00.PL1	Plastic Laminate, Type 1
06 20 00.RW	Reclaimed Wood Wall Finish

6 AREA B1 FIRST FLOOR PLAN
1/8" = 1'-0"

3 AREA B2 FIRST FLOOR PLAN
1/8" = 1'-0"

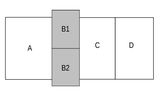
NORTH

PBK
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN PLAN NORTH

CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
JULY 24, 2015
DRAWN BY
KB,BR,TS,BA,JY,EG,SG,LB
CHECKED BY
CW, SA
REVISIONS

No.	Description	Date
2	Addendum 2	07.02.2015
3	Addendum 3	07.24.2015

Issue For Construction

FIRST FLOOR PLAN - AREA B1 & B2

A-101B

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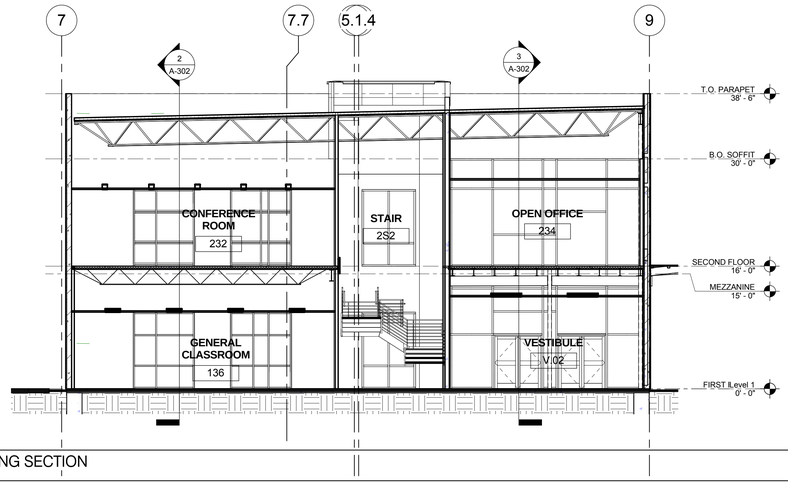
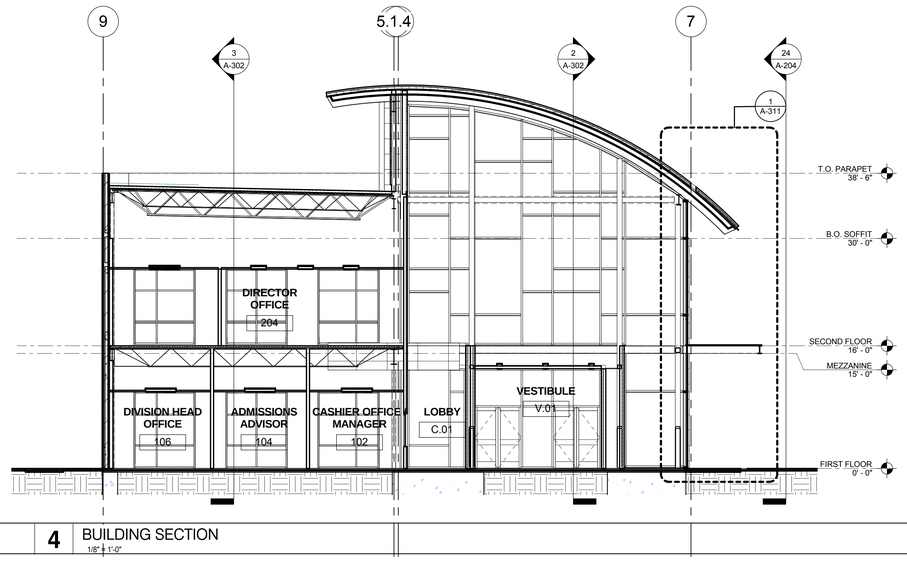
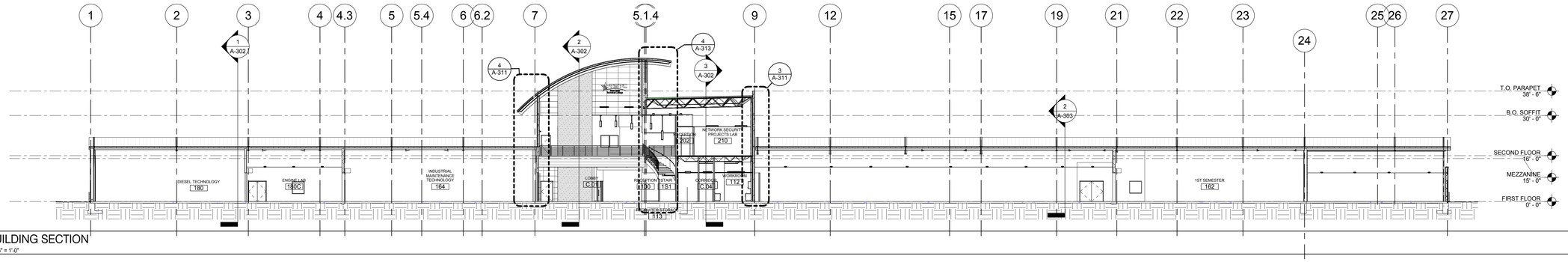


5 BUILDING SECTION
1/8" = 1'-0"

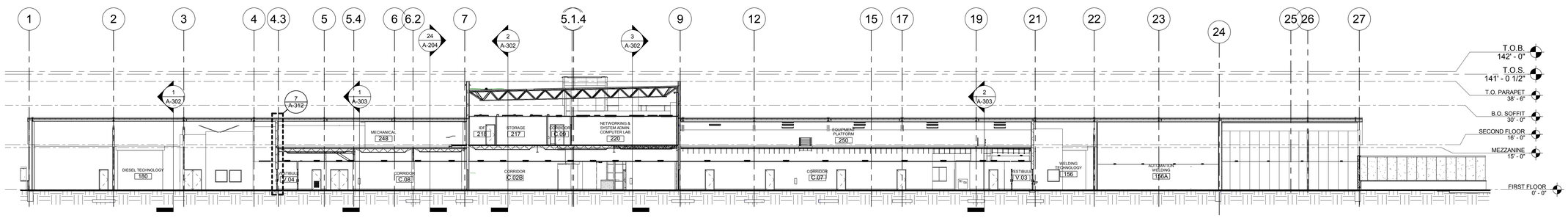


4 BUILDING SECTION
1/8" = 1'-0"

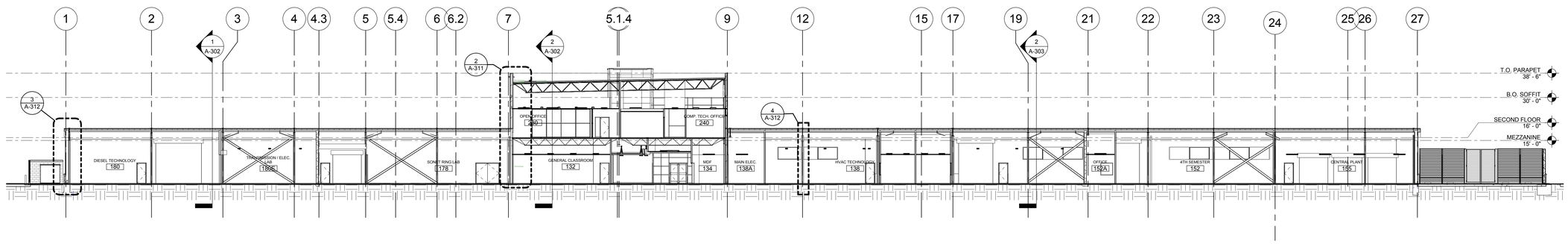
Keynote Legend - By Sheet	
Key Value	Keynote Text



3 BUILDING SECTION
1/16" = 1'-0"



2 BUILDING SECTION
1/16" = 1'-0"



1 BUILDING SECTION
1/16" = 1'-0"

PBK

11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
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PHASE II

Texas State Technical College
Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471

REGISTERED ARCHITECT
CLIFFORD WHITTINGHILL
STATE OF TEXAS
1988

JUNE 10, 2015

CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
JUNE 09, 2015
DRAWN BY
Author
CHECKED BY
Checker
REVISIONS

No.	Description	Date

100% Construction Documents

BUILDING SECTIONS

A-301

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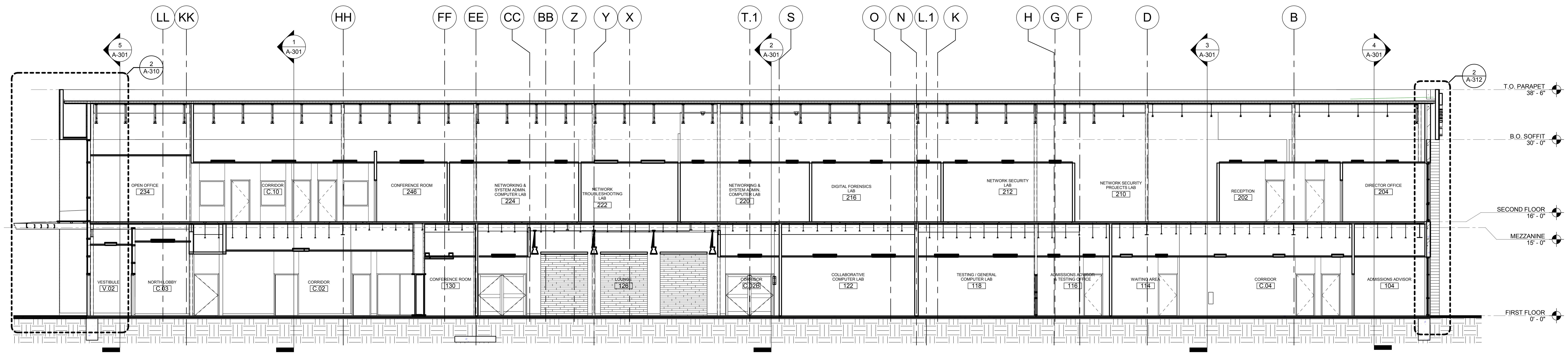
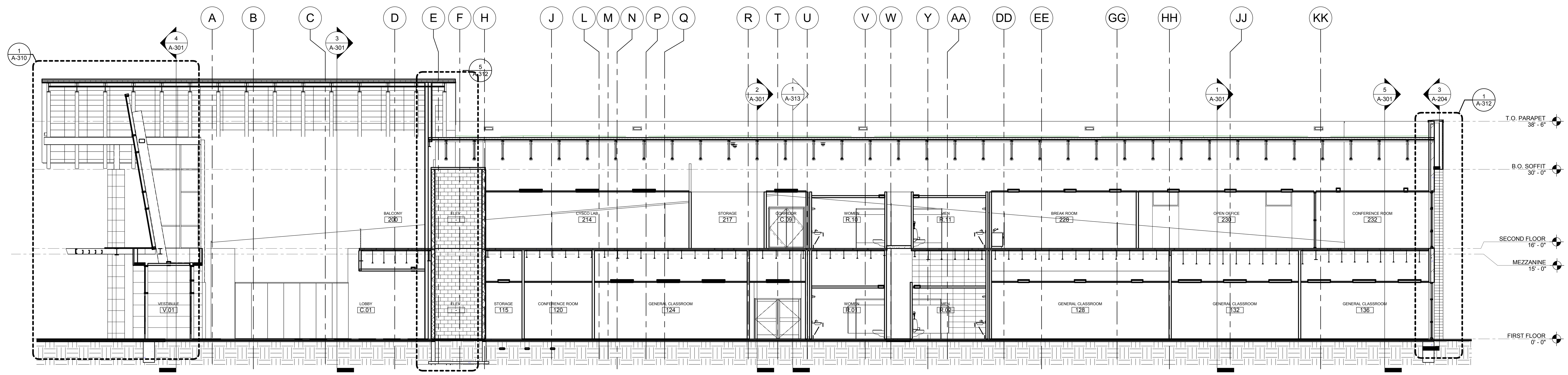
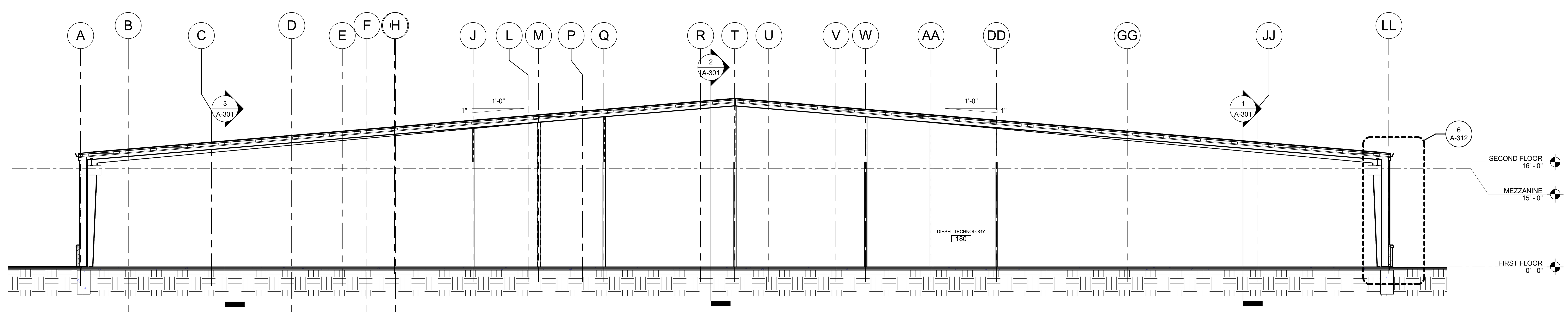


3 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



1 BUILDING SECTION
1/8" = 1'-0"

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PBK

11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center
26706 Southwest Freeway
Rosenberg, TX 77471

JUNE 10, 2015

CLIENT	Texas State Technical College
PROJECT NUMBER	14255
DATE	JUNE 09, 2015
DRAWN BY	Author
CHECKED BY	Checker

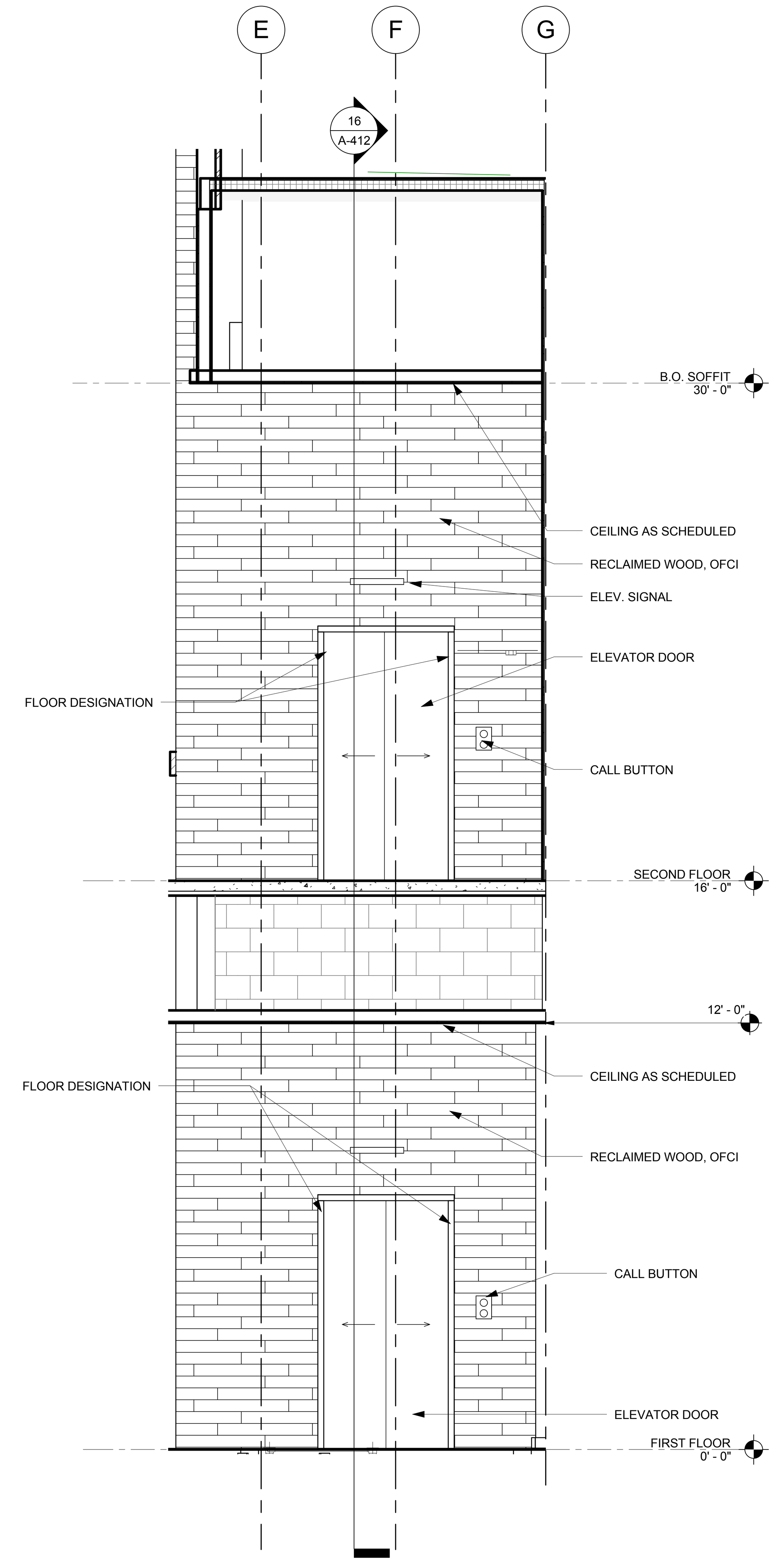
REVISIONS

No.	Description	Date

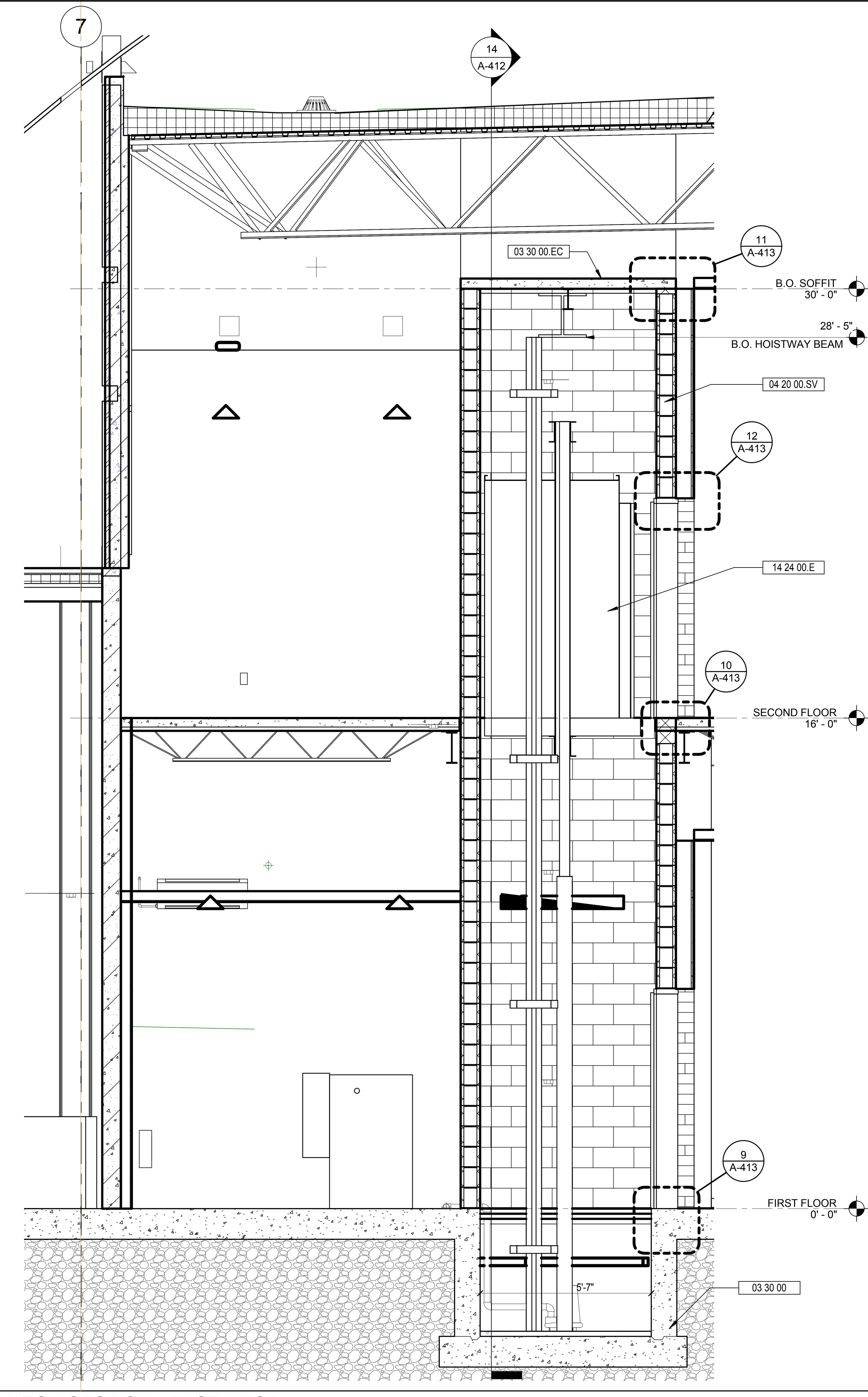
100% Construction Documents

BUILDING SECTIONS

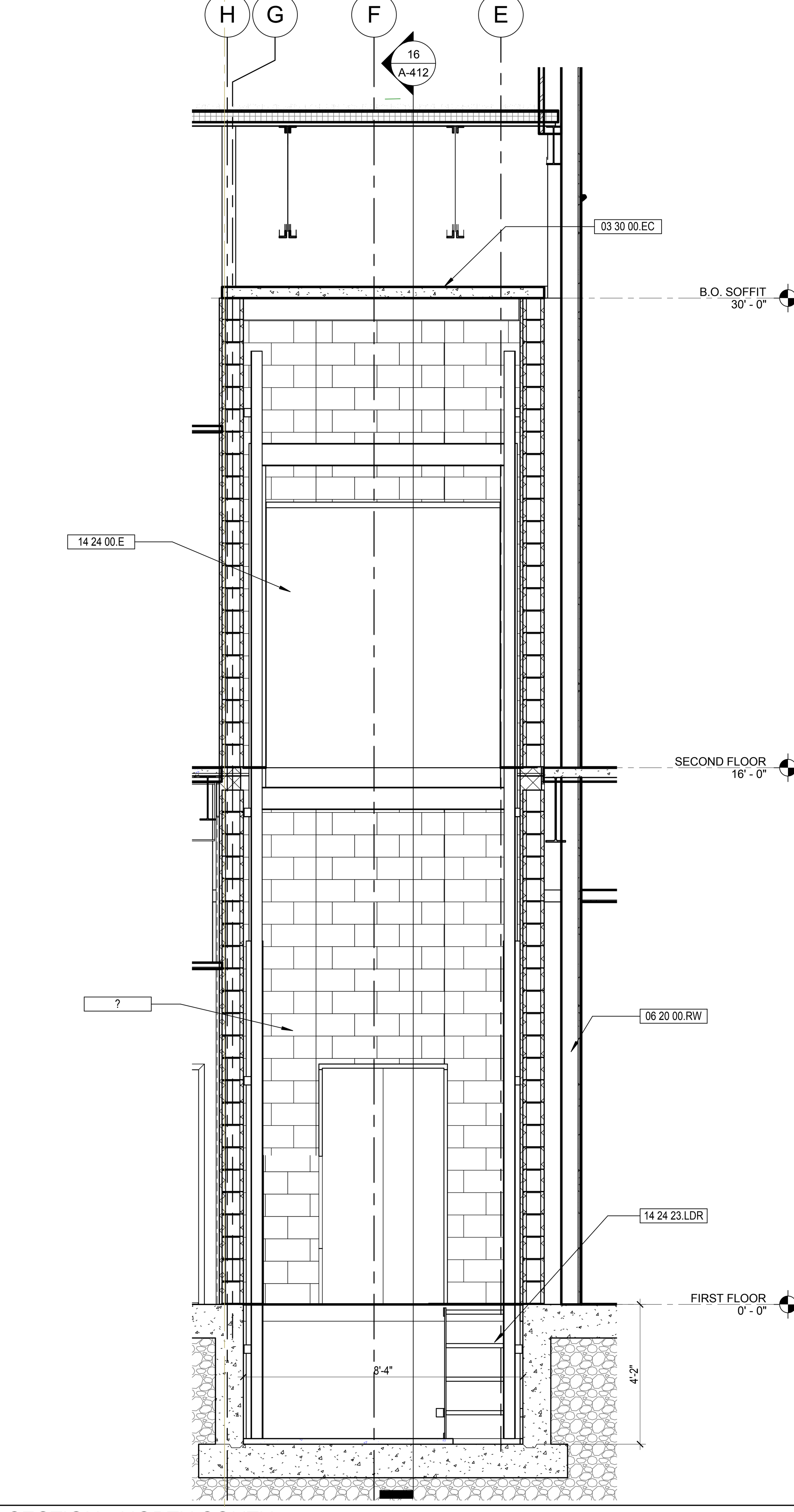
A-302



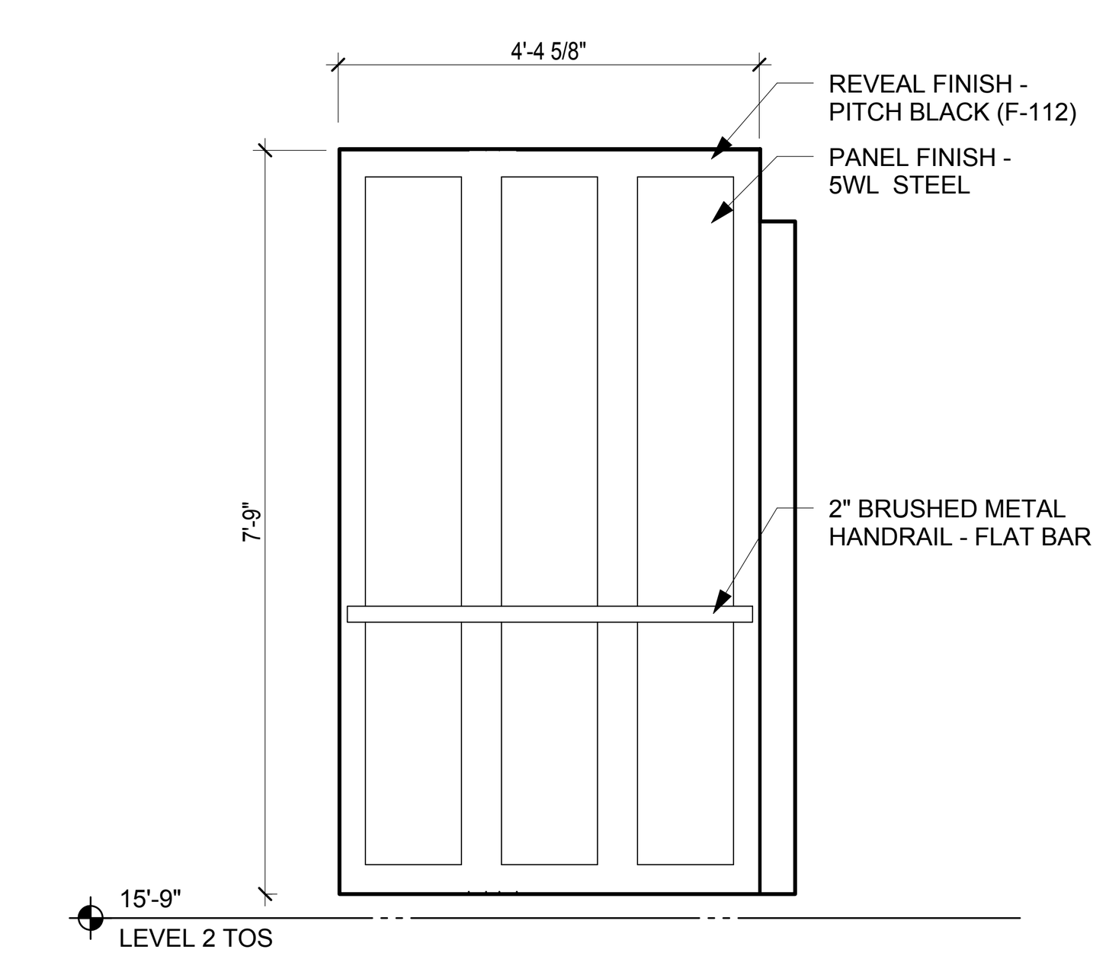
17 ELEVATOR ELEVATION
3/8" = 1'-0"



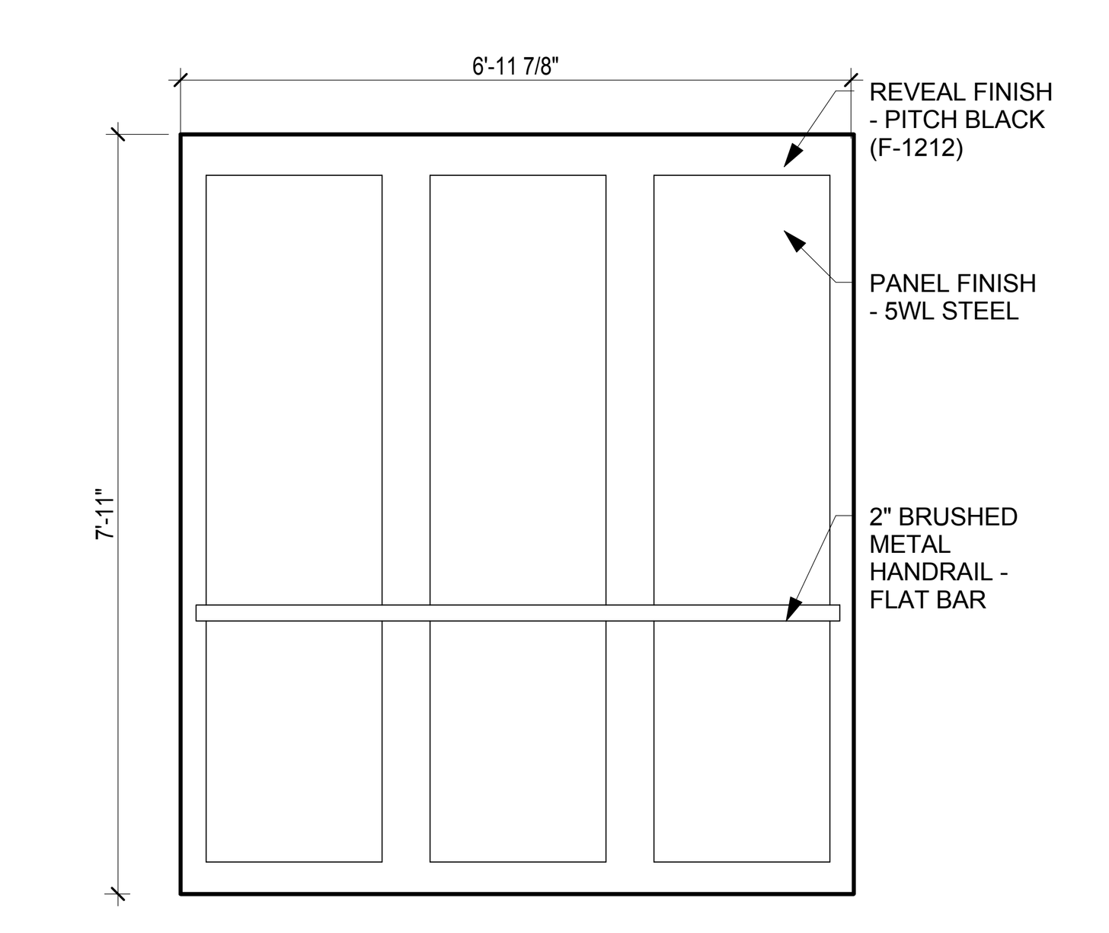
16 ELEVATOR SECTION - EAST WEST
3/8" = 1'-0"



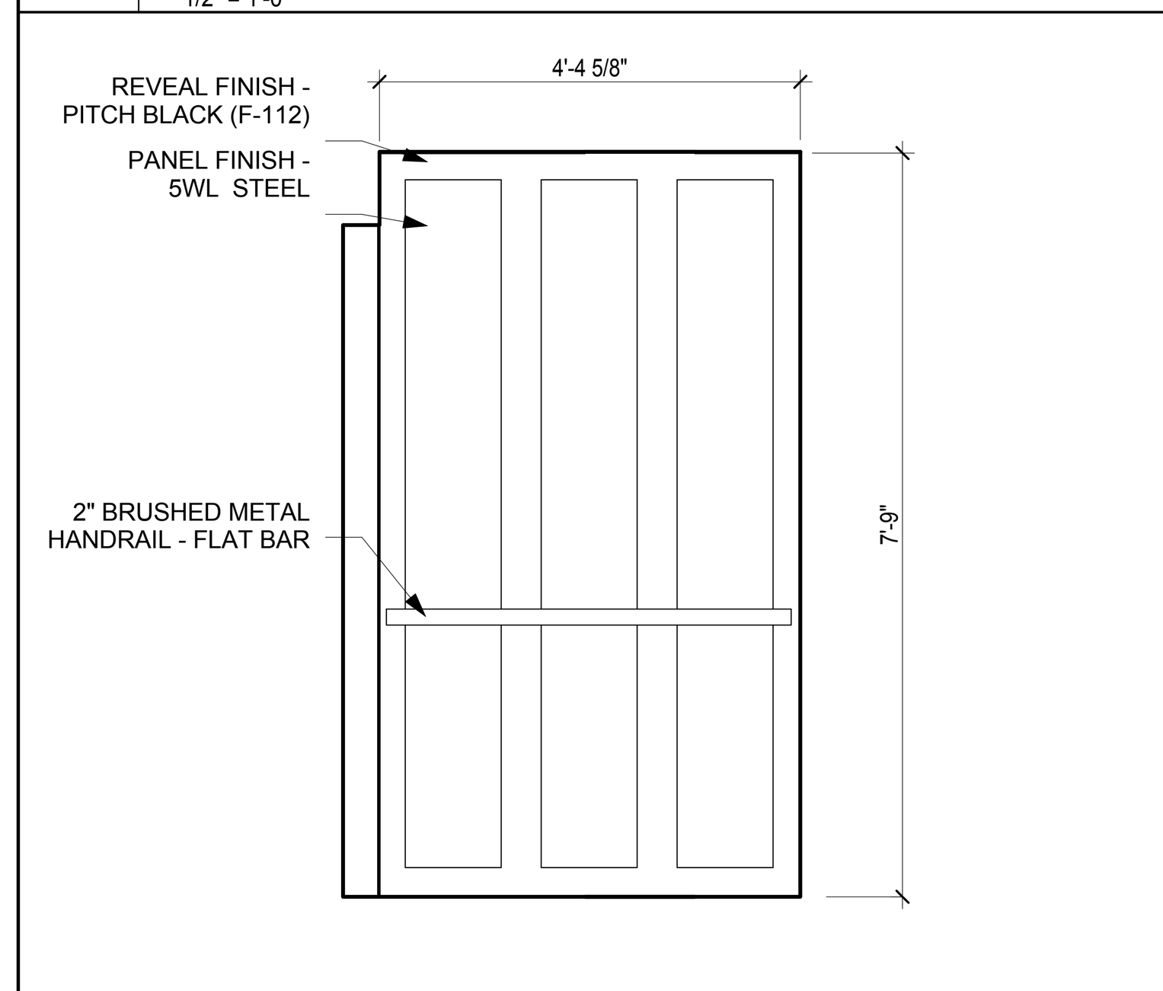
14 ELEVATOR SECTION - NORTH SOUTH
3/8" = 1'-0"



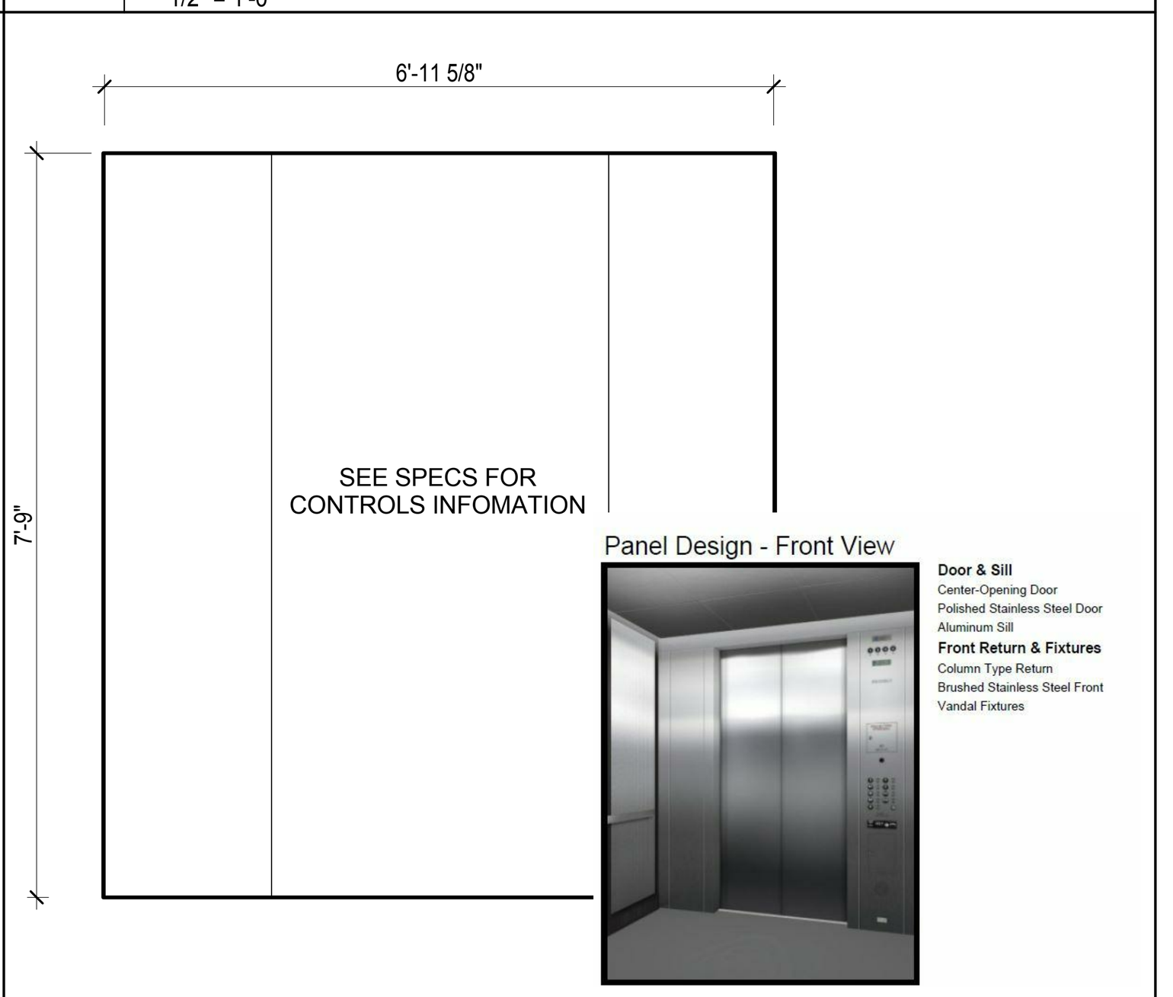
12 ELEVATOR CAB - NORTH
1/2" = 1'-0"



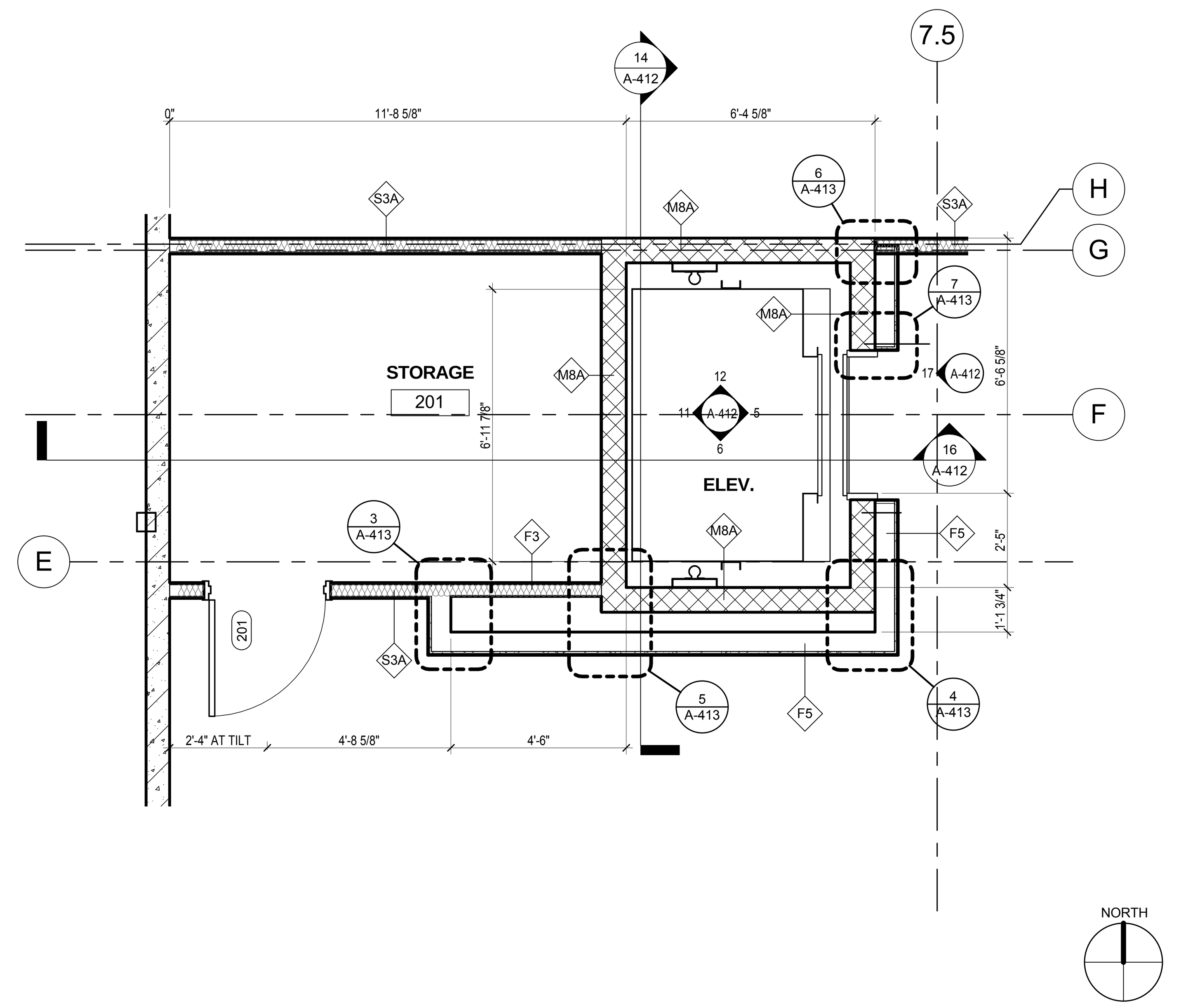
11 ELEVATOR CAB - WEST
1/2" = 1'-0"



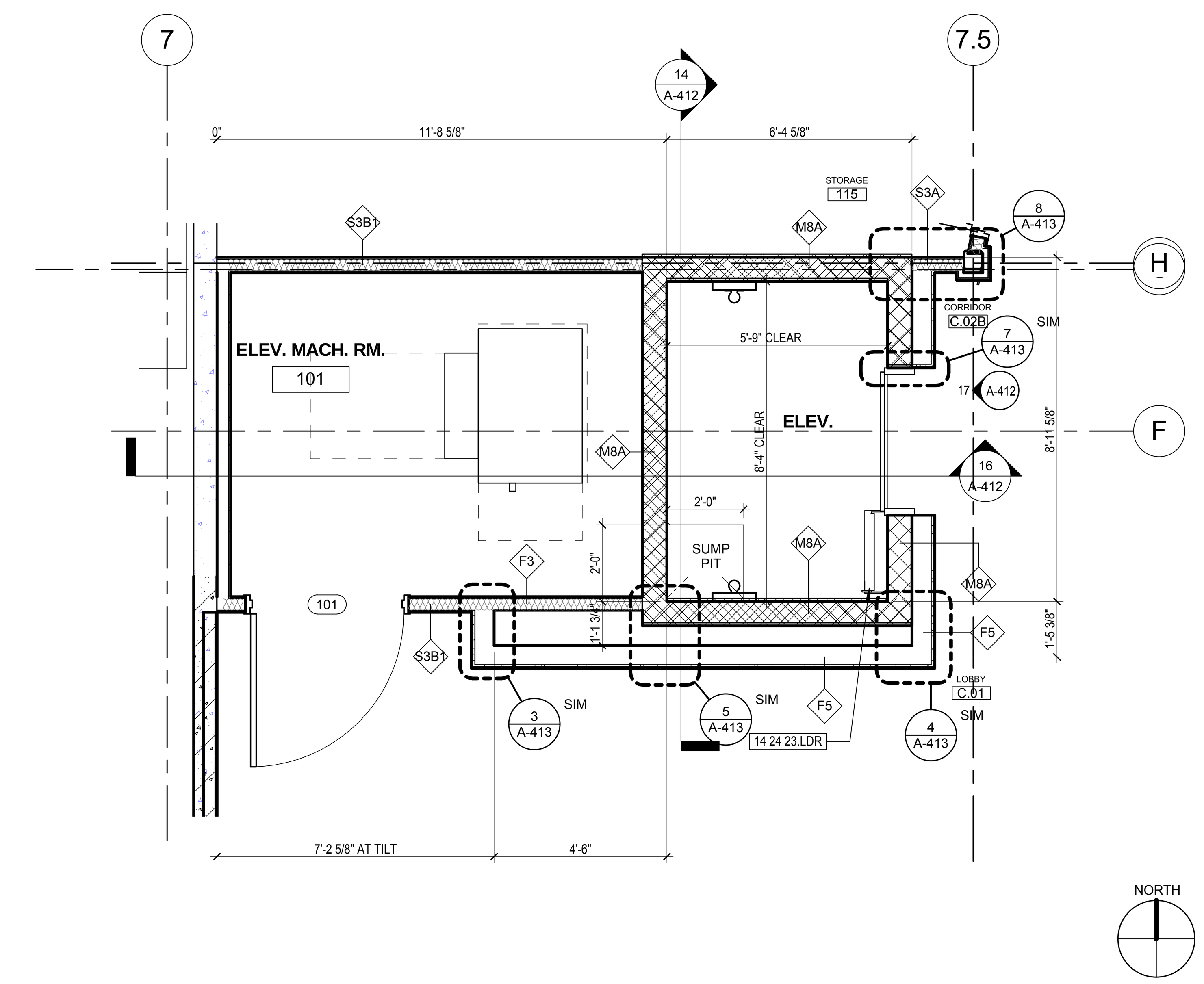
6 ELEVATOR CAB - SOUTH
1/2" = 1'-0"



5 ELEVATOR CAB - EAST
1/2" = 1'-0"



4 ENLARGED PLAN ELEVATOR - IDF 201
3/8" = 1'-0"



2 ENLARGED PLAN ELEVATOR - ELEV. MACH. RM. 113
3/8" = 1'-0"

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6/11/2015 4:57:58 PM

PBK

11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center
26706 Southwest Freeway
Rosenberg, TX 77471

JUNE 10, 2015

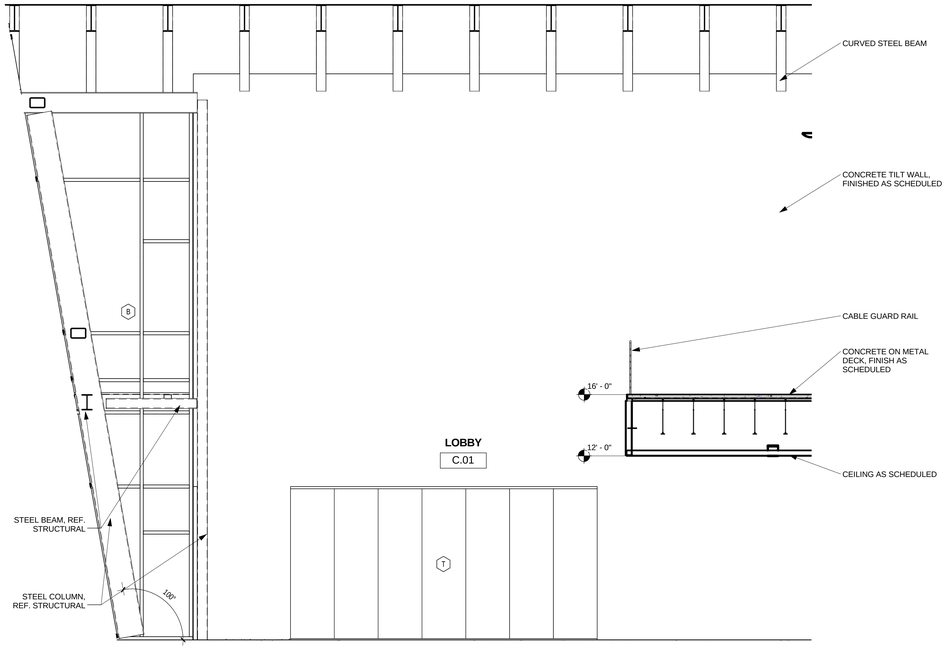
CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
JUNE 09, 2015
DRAWN BY
Author
CHECKED BY
Checker
REVISIONS

No.	Description	Date

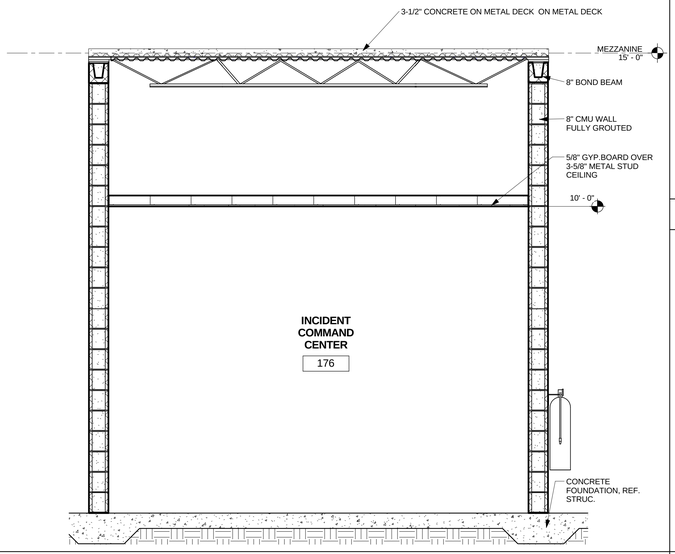
100% Construction Documents

ELEVATOR PLANS, SECTIONS AND DETAILS

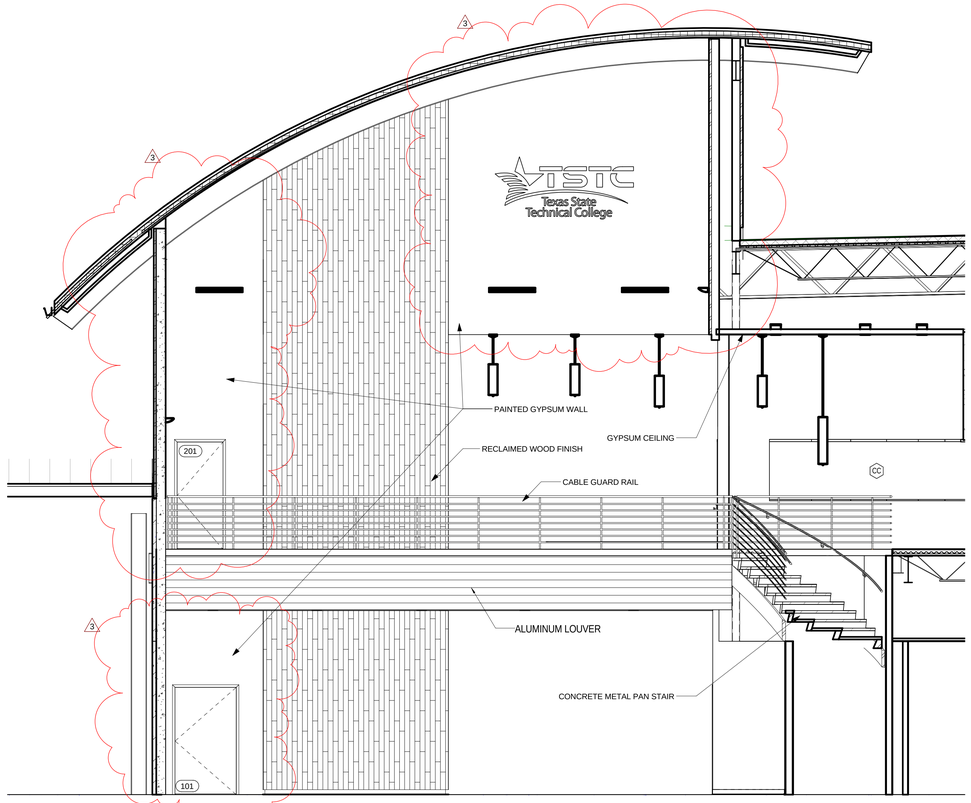
A-412



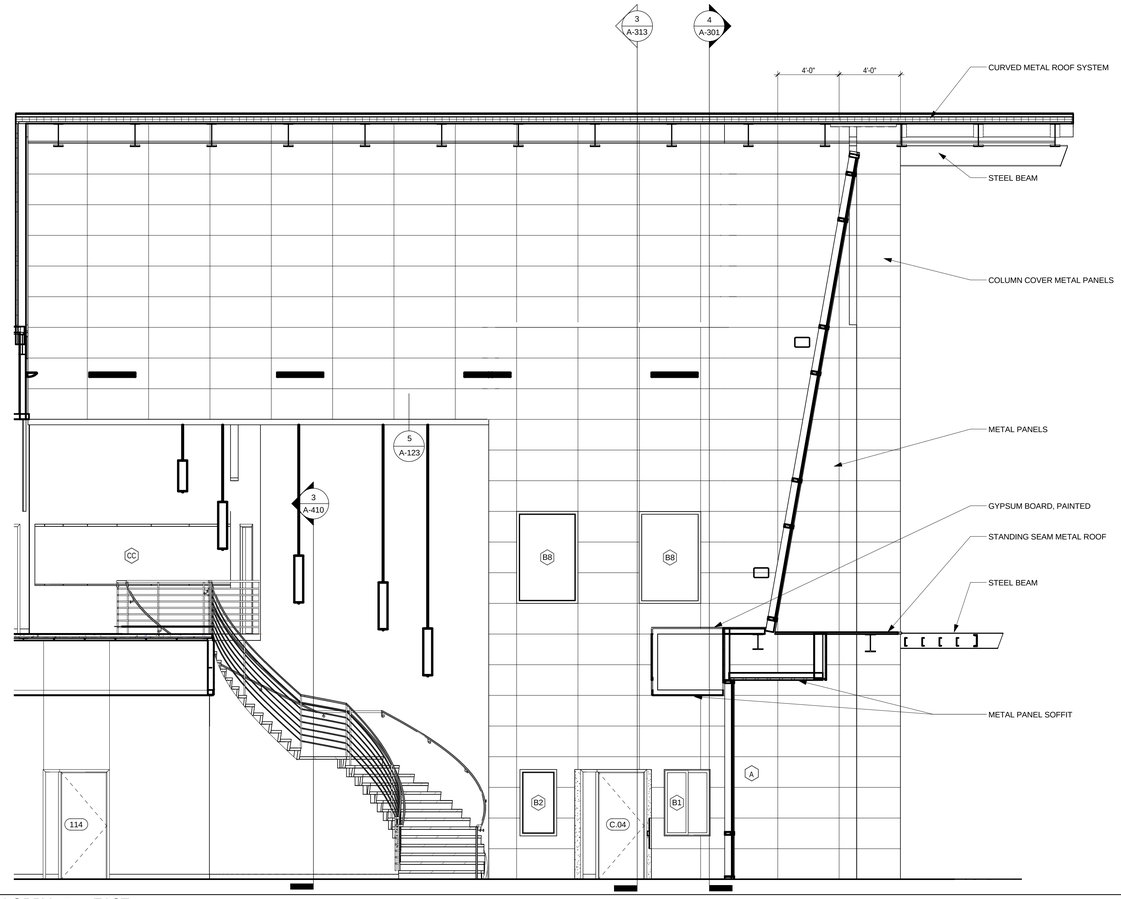
1 LOBBY 101 - WEST
1/4" = 1'-0"



4 ROOM SECTION AT INCIDENT COMMAND ROOM
1/2" = 1'-0"



2 LOBBY 101 - NORTH
1/4" = 1'-0"



3 LOBBY 101 - EAST
1/4" = 1'-0"

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PBK

11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471

REGISTERED ARCHITECT — CLIFFORD WHITTINGHILL — 18583 — STATE OF TEXAS

JULY 24, 2015

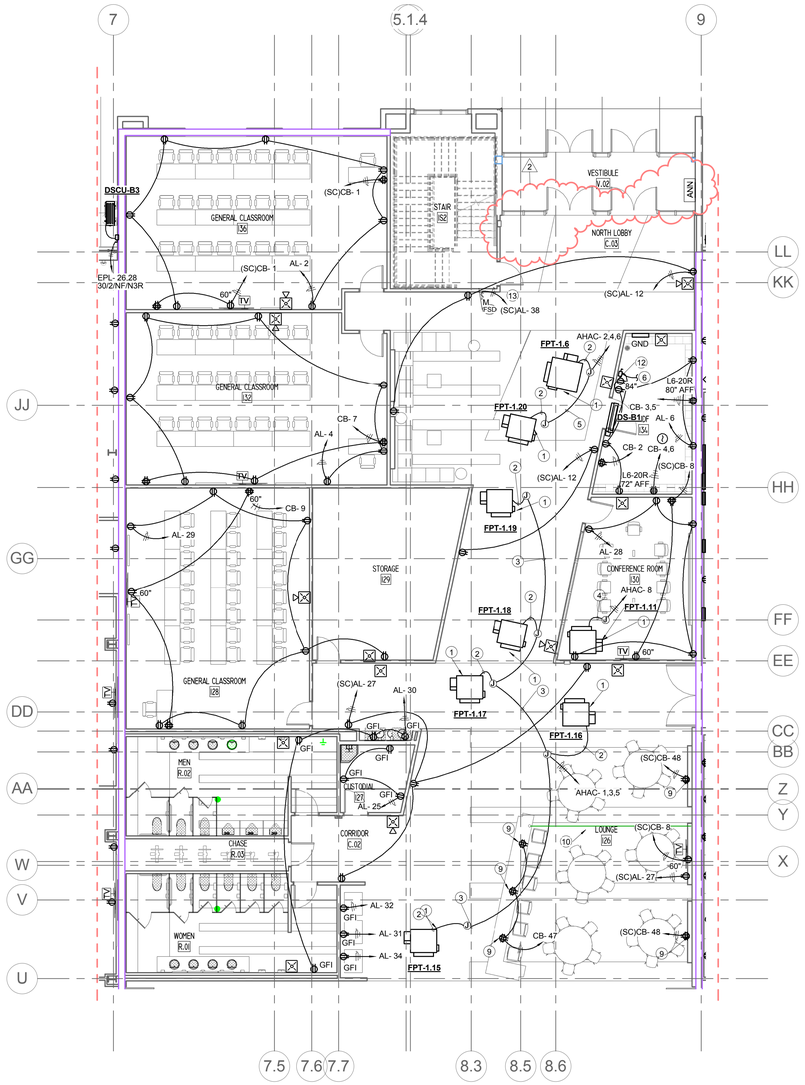
CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
JULY 24, 2015
DRAWN BY
KB,BR,TS,BA,JY,EG,SG,LB
CHECKED BY
CW, SA
REVISIONS

No.	Description	Date
3	Addendum 3	07.24.2015

Issue For Construction

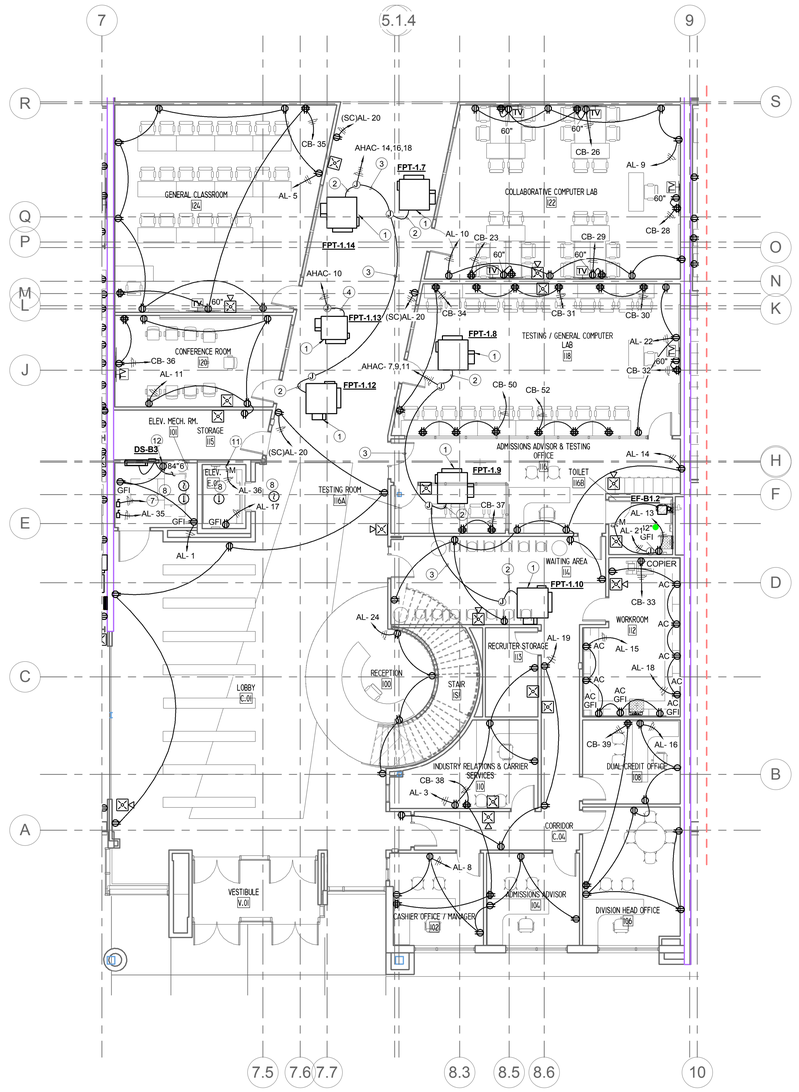
INTERIOR ELEVATIONS

A-420



NORTH

1 POWER - AREA B1 FIRST FLOOR PLAN
EP-101B 1/8" = 1'-0"



NORTH

2 POWER - AREA B2 FIRST FLOOR PLAN
EP-101B 1/8" = 1'-0"

ELECTRICAL KEYED NOTES:

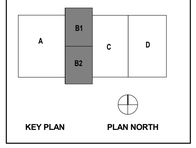
1 PROVIDE ELECTRICAL CONNECTION TO INTEGRAL FUSED DISCONNECT OF HVAC EQUIPMENT.
2 4#12, #12GND.
3 4#6, #10GND.
4 2#12, #12GND.
5 4#8, #10 GND.
6 PROVIDE AND INSTALL 30A, 3P, NF, N1 DISCONNECT SWITCH FOR HVAC EQUIPMENT. EXTEND BRANCH CIRCUIT AND CONTROLS TO RESPECTIVE CONDENSING UNIT.
7 REFER TO ONE-LINE DIAGRAM, E401, FOR ELEVATOR REQUIREMENTS.
8 PROVIDE AND INSTALL LOBBY SMOKE DETECTORS, MACHINE ROOM HEAT AND SMOKE DETECTORS, AND HOISTWAY HEAT DETECTOR IN ACCORDANCE WITH ASME ANSI A17.1 ELEVATOR CODE FOR RECALL AND SHUNT TRIP OF ELEVATOR.
9 PROVIDE AND INSTALL DUAL DUPLEX RECEPTACLE WITH DUAL USB PORTS PER DUPLEX RECEPTACLE. STUB UP 3/4" CONDUIT BELOW FOR POWER AND 1" CONDUIT BELOW FOR DATA. VERIFY MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH IN.
10 STUB OUT 1 1/2"C FROM IT ROOM.
11 PROVIDE 120V MOTOR RATED TOGGLE DISCONNECT FOR SUMP PUMP ESP-1 (1/3HP, 120V). COORDINATE CONNECTION WITH DIVISION 22.
12 PROVIDE AND INSTALL RECEPTACLE OUTLET FOR CONDENSATE PUMP. COORDINATE LOCATION WITH DIVISION 23 INSTALLER.
13 PROVIDE AND INSTALL 120V, 1P TOGGLE DISCONNECT SWITCH FOR FIRE SMOKE DAMPER. COORDINATE WITH DIVISION 23.

PBK
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0808 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN PLAN NORTH

CLIENT
Texas State Technical College

PROJECT NUMBER
14255

DATE
June 10, 2015

DRAWN BY
DBR

CHECKED BY
DBR

REVISIONS

No.	Description	Date
1	Addendum 1	06.19.2015
2	Addendum 2	07.01.2015

100% Construction Documents

POWER - AREA B1 AND B2 FIRST FLOOR PLAN

EP-101B

JONES|DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston, TX 77042
713.914.4333 p
713.914.4336 f
TBPE Firm Registration NO. 13002

JONES|DBR Project Number 156003.000

ZM	JC	KD/DC	CF/MG	MC/JL

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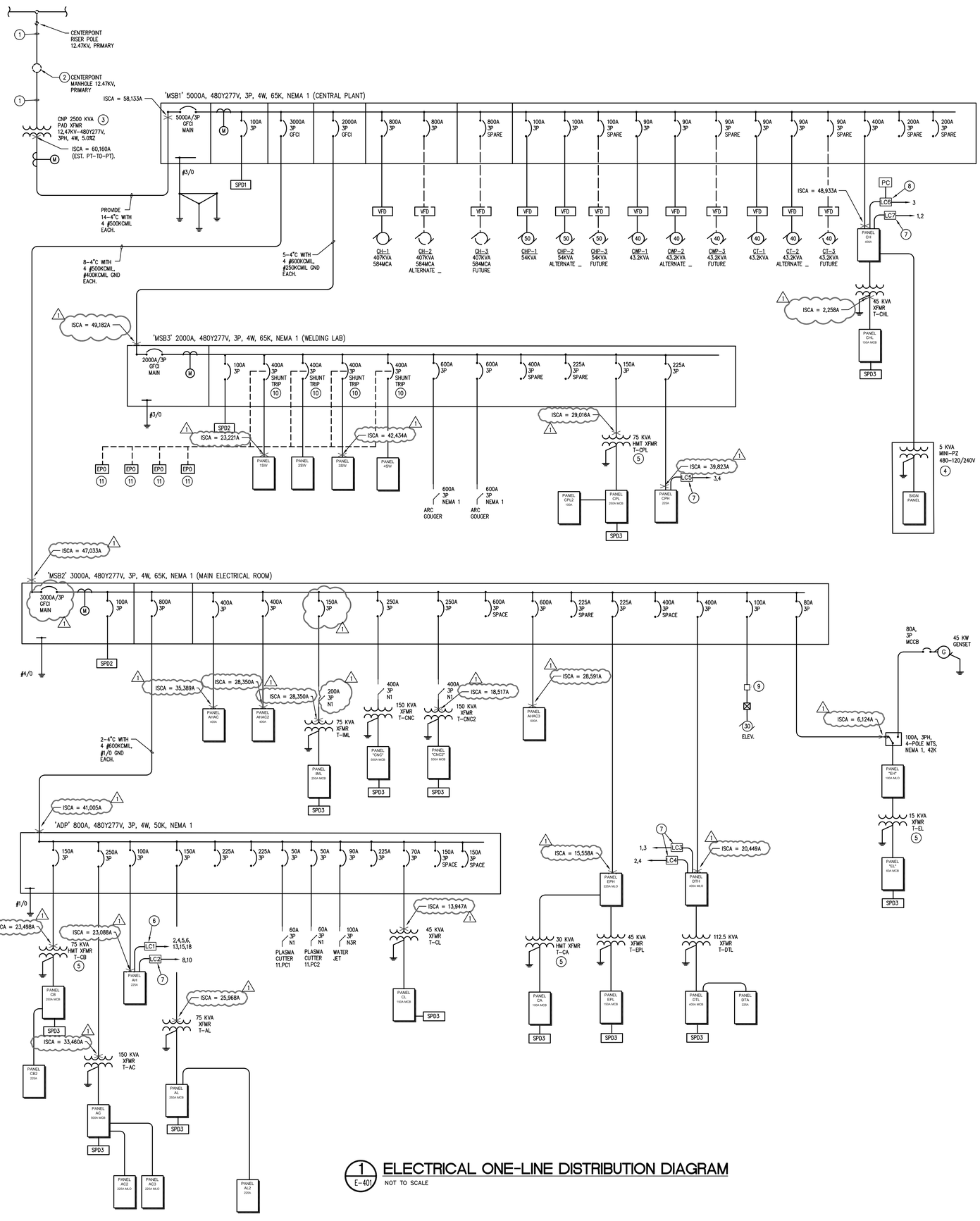

ONE-LINE DIAGRAM GENERAL NOTES:

A. MANUFACTURER OF ELECTRICAL GEAR SHALL PROVIDE A COORDINATION STUDY FOR THE ENTIRE ELECTRICAL SYSTEM IN ORDER TO SET BREAKERS. REFER TO SPECIFICATIONS. MANUFACTURER SHALL ALSO PROVIDE A FAULT CIRCUIT STUDY FOR THE ENTIRE ELECTRICAL SYSTEM IN ORDER TO SELECT INTERRUPTING RATINGS OF ALL CIRCUIT BREAKERS, DISTRIBUTION PANELBOARDS, PANELBOARDS, ETC. A SERIES RATED SYSTEM IS NOT ACCEPTABLE. SUBMIT INTERRUPTING RATING FOR ALL ELECTRICAL GEAR IN SUBMITTALS. CONTRACTOR SHALL SUPPLY WITH THEIR SUBMITTALS ON ALL NEW EQUIPMENT THE MANUFACTURERS UL DATA LISTING THE RATING OF ALL EQUIPMENT. CONTRACTOR SHALL INSTRUCT MANUFACTURER TO INCLUDE IN THEIR SUBMITTALS ALL TRIP CURVES AND ALL LITERATURE INDICATING THE INTERRUPTING RATING CHARACTERISTICS OF EQUIPMENT BEING SUPPLIED.

B. METERING EQUIPMENT ENCLOSURE PROVIDED BY POWER CO., INSTALLED BY ELECTRICAL CONTRACTOR PER POWER COMPANY SPECIFICATIONS. METERS INSTALLED BY POWER COMPANY. CONTACT MR. FRANK DE LEON, (713) 207-4941 FOR UTILITY COMPANY COORDINATION.

C. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM MAY BE USED FOR FEEDERS 150A AND ABOVE.

D. CONTRACTOR SHALL INSTALL FEEDERS BASED ON THE OVERCURRENT DEVICE RATING UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO THE FEEDER SCHEDULE AND TRANSFORMER FEEDER SCHEDULES TO OBTAIN AND INSTALL THE FEEDERS REQUIRED.

E. A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

ELECTRICAL KEYED NOTES:

1. PROVIDE AND INSTALL 2-6" CONDUIT DUCTBANK PER UTILITY COMPANY SPECIFICATIONS. COORDINATE WITH CENTERPOINT ENERGY (CNP). SEE ONE-LINE DIAGRAM GENERAL NOTES.
2. PROVIDE AND INSTALL CONCRETE PRECAST MANHOLE IN ACCORDANCE WITH CNP REQUIREMENTS.
3. PROVIDE AND INSTALL TRANSFORMER PAD IN ACCORDANCE WITH CNP REQUIREMENTS.
4. FURNISH AND INSTALL 15KVA, 480V-120/240V, 1PH 3W MINI-POWER ZONE, SQUARE D #MPZ1554CF, OR EQUIVALENT WITH 60A PRIMARY BREAKER. PROVIDE WITH (2) 40A, 2P BRANCH CIRCUIT BREAKERS.
5. PROVIDE AND INSTALL NEW HMT TRANSFORMER WITH 0° PHASE SHIFT. REFER TO SPECIFICATIONS 26 22 22.
6. 20A, 8-POLE MECHANICALLY HELD LIGHTING CONTACTOR IN NEMA 1 ENCLOSURE WITH H-O-A SWITCH AND MOMENTARY CONTACT ADAPTERS FOR EMCS CONTROL OF INTERIOR LIGHTING. COORDINATE WITH DIVISION 23 INSTALLER. PROVIDE 120V COIL CONTROL POWER AS REQUIRED FROM NEAREST 120V SPARE CIRCUIT.
7. 20A, 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR IN NEMA 1 ENCLOSURE WITH H-O-A SWITCH AND MOMENTARY CONTACT ADAPTERS FOR MOMENTARY CONTACT CONTROL OF INTERIOR LIGHTING. PROVIDE 120V COIL CONTROL POWER AS REQUIRED FROM NEAREST 120V SPARE CIRCUIT.
8. 20A, 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR IN NEMA 1 ENCLOSURE WITH H-O-A SWITCH AND MOMENTARY CONTACT ADAPTERS FOR EMCS AND PHOTO-CELL CONTROL OF EXTERIOR LIGHTING. PROVIDE 120V COIL CONTROL POWER AS REQUIRED FROM NEAREST 120V SPARE CIRCUIT.
9. BUSSMANN POWER MODULE SWITCH #PS1-T4B-R1-K-R-A, WITH SHUNT TRIP, FIRE ALARM INTERFACE, AND AUXILIARY CONTACT FOR LOCKING OUT BATTERY LOWERING CONTROL. FUSE AT 80A FOR 30 HP UNIT. (VERIFY ACTUAL UNIT HP).
10. PROVIDE AND INSTALL SHUNT TRIP BREAKER FOR WELDING LAB PANELS. CONNECT IN SERIES WITH FOUR (4) E.P.O. SWITCHES SUCH THAT ANY ONE SWITCH TRIPS ALL FOUR PANELS.
11. PROVIDE AND INSTALL RED MUSHROOM SWITCH WITH KEYED RESET FOR SHUNT TRIP OPERATION. REFER TO PLANS FOR LOCATIONS.

SPD SCHEDULE

MARK	MANUFACTURE	MODEL	CABLE SIZE
SPD1	EMERSON	560-YC-16ANCGTS	#2
SPD2	EMERSON	560-YC-12ANCGTS	#2
SPD3	EMERSON	510-YA-08ANCGTS	#8

HARMONIC MITIGATING TRANSFORMER FEEDER SCHEDULE

PRIMARY VOLTAGE				SECONDARY VOLTAGE			
480V, THREE PHASE				120/208V, THREE PHASE, FOUR WIRE			
KVA	FEEDER	CONDUIT	BREAKER	FEEDER	CONDUIT	BREAKER	GND. ELEC. SIZE
15	3 #10, 1 #10 GND.	3/4" C.	30A/3P	3 #6, 1 #4 NEUTRAL, 1 #8 GND.	1"	60A/3P	#8
30	3 #4, 1 #8 GND.	1"	70A/3	3 #3, 1 #1/0 NEUTRAL, 1 #8 GND.	1 1/4"	100A/3P	#8
45	3 #3, 1 #8 GND.	1 1/4"	90A/3P	3 #1/0, 1 #4/0 NEUTRAL, 1 #6 GND.	2"	150A/3P	#6
75	3 #1/0, 1 #6 GND.	1 1/2"	150A/3P	3 #250KCMIL, (2) #250KCMIL NEUTRAL, 1 #2 GND.	3 1/2"	250A/3P	#2
112.5	3 #3/0, 1 #6 GND.	2"	200A/3P	(2) SETS OF (3) #3/0, (1) 250KCMIL NEUTRAL, (1) #2 GND.	(2) 2"	400A/3P	#1/0
150	3 #250KCMIL, 1 #4 GND.	2-1/2"	250A/3P	(2) SETS OF 3 #250KCMIL, 1 #500KCMIL NEUTRAL, 1 #1/0 GND.	(2) 3"	500A/3P	#1/0
225	3 #500KCMIL, 1 #3 GND.	3"	400A/3P	(2) SETS OF (3) #500KCMIL, (2) #350 KCMIL NEUTRAL, 1 #2/0 GND.	(2) 3-1/2"	800A/3P	#3/0

NOTE:
-ALL CONDUCTORS SHALL BE COPPER

DRY TYPE 3-PHASE TRANSFORMER FEEDER SCHEDULE

PRIMARY				SECONDARY			
480V, THREE PHASE				120/208V, THREE PHASE, FOUR WIRE			
KVA	FEEDER	CONDUIT	BREAKER	FEEDER	CONDUIT	BREAKER	GND. ELEC. SIZE
9	3 #12, 1 #12 GND.	3/4" C.	20A/3P	4 #10, 1 #8 GND.	3/4"	30A/3P	#8
15	3 #10, 1 #10 GND.	3/4" C.	30A/3	4 #6, 1 #8 GND.	1"	60A/3P	#8
30	3 #4, 1 #8 GND.	1" C.	70A/3P	4 #3, 1 #8 GND.	1 1/4"	100A/3P	#8
45	3 #3, 1 #8 GND.	1-1/4" C.	90A/3P	4 #1/0, 1 #6 GND.	1 1/2"	150A/3P	#6
75	3 #1/0, 1 #6 GND.	1-1/2" C.	150A/3P	4 #250KCMIL, 1 #2 GND.	3"	250A/3P	#2
112.5	3 #3/0, 1 #6 GND.	2" C.	200A/3P	(2) SETS OF 4#3/0, 1 #2 G.	(2) 2"	400A/3P	#2
150	3 #250KCMIL, 1 #4 GND.	2-1/2" C.	250A/3P	(2) SETS OF 4 #250KCMIL, 1 #1/0 GND.	(2) 2 1/2"	500A/3P	#1/0
225	3 #500KCMIL, 1 #3 GND.	3" C.	400A/3P	(2) SETS OF 4 #500KCMIL, 1 #2/0 GND.	(2) 3 1/2"	800A/3P	#3/0

NOTE:
-ALL CONDUCTORS SHALL BE COPPER

FEEDER SCHEDULE

AMPERAGE	SETS	CONDUCTOR SIZE	CONDUIT (INCHES)
30A	1	4#10, 1#10 G.	3/4"C
40A	1	4#8, 1#10 G.	1"C
50A	1	4#8, 1#10 G.	1"C
60A	1	4#6, 1#10 G.	1"C
70A	1	4#4, 1#8 G.	1 1/4"C
80A	1	4#4, 1#8 G.	1 1/4"C
90A	1	4#3, 1#8 G.	1 1/4"C
100A	1	4#3, 1#8 G.	1 1/4"C
125A	1	4#1, 1#6 G.	1 1/2"C
150A	1	4#1/0, 1#6 G.	1 1/2"C
175A	1	4#2/0, 1#6 G.	2"C
200A	1	4#3/0, 1#6 G.	2"C
225A	1	4#4/0, 1#4 G.	2 1/2"C
250A	1	4#250KCMIL, 1#4 G.	2 1/2"C
300A	1	4#350KCMIL, 1#4 G.	3"C
350A	1	4#500KCMIL, 1#3 G.	3 1/2"C
400A	2	4#3/0, 1#2 G.	2"C
450A	2	4#4/0, 1#2 G.	2 1/2"C
500A	2	4#250KCMIL, 1#2G.	2 1/2"C
600A	2	4#350KCMIL, 1#1G.	3"C
700A	2	4#500KCMIL, 1#1/0G.	4"C
800A	2	4#600KCMIL, 1#1/0G.	4"C
1000A	3	4#500KCMIL, 1#2/0G.	4"C
1200A	4	4#350KCMIL, 1#3/0G.	3"C
1600A	4(600) OR 5(500)	4#600KCMIL, 1#4/0G. OR 4#500KCMIL, 1#4/0G.	4"C
2000A	5(600) OR 6(500)	4#600KCMIL, 1#250KCMIL G. OR 4#500KCMIL, 1#250KCMIL G.	4"C
2500A	6(600) OR 7(500)	4#600KCMIL, 1#350KCMIL G. OR 4#500KCMIL, 1#350KCMIL G.	4"C
3000A	7(600) OR 8(500)	4#600KCMIL, 1#400KCMIL G. OR 4#500KCMIL, 1#400KCMIL G.	4"C
3500A	9(600) OR 10(500)	4#600KCMIL, 1#500KCMIL G. OR 4#500KCMIL, 1#500KCMIL G.	4"C
4000A	10(600) OR 11(500)	4#600KCMIL, 1#500KCMIL G. OR 4#500KCMIL, 1#500KCMIL G.	4"C
5000A	12(600) OR 14(500)	4#600KCMIL, 1#700KCMIL G. OR 4#500KCMIL, 1#700KCMIL G.	4"C

1. ELECTRICAL CONTRACTOR SHALL PROVIDE THE NUMBER OF LUGS AND PROPER LUG SIZES TO ACCEPT CONDUCTOR SIZES SHOWN.
2. GROUND NOT REQUIRED AT SERVICE LATERAL.

1 E-401 ELECTRICAL ONE-LINE DISTRIBUTION DIAGRAM
NOT TO SCALE

PBK
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-6608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center
26706 Southwest Freeway
Rosenberg, TX 77471

KEY PLAN PLAN NORTH

CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
June 10, 2015
DRAWN BY
DBR
CHECKED BY
DBR
REVISIONS

No.	Description	Date
1	Addendum 1	06.19.2015

100% Construction Documents

ELECTRICAL ONE-LINE DIAGRAM

E-401

JONES*DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston, TX 77042
713.914.4333 p
713.914.9266 f
TBPE Firm Registration NO. 13002

JONES*DBR Project Number 156003.000

ZM	JC	KD/DC	CF/MG	MC/JL

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2/28/2015 8:59:22 AM

Panelboard DTH

22000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MLO | 0 A MCB | 400 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	2352 VA	L	LIGHTING DIESEL LAB	12	20 A	1	2	20 A	12	LIGHTING DIESEL LAB	L	3584 VA	
	3920 VA	L	LIGHTING DIESEL LAB	12	20 A	3	4	20 A	12	LIGHTING DIESEL LAB	L	2352 VA	
	2412 VA	L	LIGHTING ISE IND. MAINT.	12	20 A	5	6	20 A	12	LIGHTING DIESEL LAB ROOMS	L	3576 VA	
	2016 VA	L	LIGHTING LVL 2 AREA A	12	20 A	7	8	20 A	12	LIGHTING OFFICES AREA A	L	3096 VA	
	2028 VA	L	LIGHTING INCIDENT COMMAND...	12	20 A	9	10	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	11	12	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	13	14	15 A	12	EF-AD1	F	2825 VA	
	6801 VA	H	FCU-A1	12	20 A	15	16						
--	--	--	SPARE	--	20 A	17	18						
	2825 VA	F	EF-AD2	12	15 A	19	20	40 A	8	DIESEL LAB 164 - JIB CRANE	MT	17451 VA	
						21	22						
						23	24						
	2772 VA	L	LIGHTING ISE IND. MAINT.	12	20 A	25	26	20 A	12	EUH-A2	H	4654 VA	
						27	28						
						29	30						
	3000 VA	M	AIR DRYER	12	15 A	31	32	100 A	3	AIR COMPRESSOR (50HP)	M	43212 VA	
						33	34						
						35	36						
--	--	--	SPACE	--	--	37	38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39	40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41	42	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	43	44	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	45	46	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	47	48	--	--	SPACE	--	--	--
	86556 VA	R; F; C; M;...	T-DTL	3/0	200 A	49	50	--	--	SPACE	--	--	--
						51	52	--	--	SPACE	--	--	--
						53	54	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	17940 VA	77.87%	13970 VA	210.20(a)	(L)Lighting	28108 VA	125.00%	35135 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	0 VA	620.14	(E)Elevators			
220.60	(H)Heating	11455 VA	100.00%	11455 VA		(WH)Wat. Htr.			
220.60	(F)Fans	13858 VA	100.00%	13858 VA	220.5	(MT)Lrg. Motor	17451 VA	125.00%	21814 VA
	(M)Misc.	98924 VA	100.00%	98924 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 195432 VA VA = 235 A
Total Load (Diversified): 199731 VA VA = 240 A
Location of Panel: MECH. / ELEC. 181

Panelboard DTL

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MCB | 400 A MCB | 400 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	720 VA	R	R TOOL STORAGE 164D	12	20 A	1	2	100 A	3	100A BUSWAY DIESEL LAB	M	10400 VA	
	720 VA	R	R TOOL STORAGE 164D	12	20 A	3	4						
	900 VA	M	TRANS LAB 164E - Roll-up Door	12	20 A	5	6						
	900 VA	M	DIESEL LAB 164 - Roll-up Door	12	20 A	7	8	70 A	4	DIESEL LAB 164 - Parts Washer	M	11648 VA	
	880 VA	R	RADIANT HEATER ELEC....	12	20 A	9	10						
	880 VA	R	RADIANT HEATER ELEC....	12	20 A	11	12	50 A	8	PORTABLE WELDERS	M	8400 VA	
	880 VA	R	RADIANT HEATER ELEC....	12	20 A	13	14						
	900 VA	M	DIESEL LAB 164 - Roll-up Door	12	20 A	15	16	50 A	8	PORTABLE WELDERS	M	8400 VA	
	900 VA	R	DIESEL LAB 164 Parts Washers	12	20 A	17	18						
	900 VA	M	ENGINE LAB 164C - Roll-up Door	12	20 A	19	20	20 A	--	SPARE	--	--	--
	900 VA	M	DIESEL LAB 164 Roll-up Door	12	20 A	21	22	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	23	24	20 A	12	BATTERY CHARGER	M	1000 VA	
--	--	--	SPARE	--	20 A	25	26	20 A	12	JACKET HEATER	M	1500 VA	
--	--	--	SPARE	--	20 A	27	28	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	33	34	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	35	36	20 A	--	SPARE	--	--	--
	35728 VA	R; F; C; M;...	DTA	1/0	150 A	37	38	30 A	--	SPD	--	--	--
						39	40	30 A	--	-	--	--	--
						41	42	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	17940 VA	77.87%	13970 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	3120 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	8208 VA	100.00%	8208 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	52712 VA	100.00%	52712 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 86556 VA VA = 240 A
Total Load (Diversified): 82586 VA VA = 229 A
Location of Panel: MECH. / ELEC. 181

Panelboard DTA

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MLO | 0 A MCB | 225 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1080 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	1	2	20 A	12	R MECH. / ELEC. 165	R	720 VA	
	900 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	3	4	20 A	12	R DIESEL LAB 164	R	720 VA	
	1080 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	5	6	20 A	12	DIESEL LAB 164 - Wheel Balancer	M	2288 VA	
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	7	8						
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	9	10	20 A	12	DIESEL LAB 164 - Wheel Balancer	M	2288 VA	
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	11	12						
	540 VA	R	R DIESEL LAB 164	12	20 A	13	14	20 A	12	DIESEL LAB 180 - Tire Changer	Miscell...	2288 VA	
	540 VA	R	R DIESEL LAB 164	12	20 A	15	16						
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	17	18	20 A	12	DIESEL LAB 180 - Tire Changer	Miscell...	2288 VA	
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	19	20						
--	--	--	SPARE	--	20 A	21	22	20 A	12	DIESEL LAB 164 - Wheel Aligner	M	2288 VA	
--	--	--	SPARE	--	20 A	23	24						
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	25	26	20 A	12	R DIESEL LAB 164 - Cord Reel	R	180 VA	
	720 VA	R	R DIESEL LAB 164	12	20 A	27	28	20 A	12	R DIESEL LAB 164 - Cord Reel	R	180 VA	
	180 VA	R	R DIESEL LAB 164 - Cord Reel	12	20 A	29	30	20 A	12	R DIESEL LAB 164 - Cord Reel	R	180 VA	
	720 VA	R	R DIESEL LAB 164	12	20 A	31	32	20 A	12	EF-A3	F	528 VA	
	1080 VA	R	R ENGINE LAB 164C	12	20 A	33	34	20 A	12	R OFFICE 164B	R	1440 VA	
--	--	--	SPARE	--	20 A	35	36	20 A	--	SPARE	--	--	--
	1080 VA	R	R ENGINE LAB 164C	12	20 A	37	38	20 A	12	R DIESEL LAB 164	R	540 VA	
	1920 VA	F	EF-A1	12	20 A	39	40	20 A	12	EF-A2	F	1920 VA	
						41	42						
	1920 VA	F	SF-A6	12	20 A	43	44	20 A	12	SF-A5	F	1920 VA	
						45	46						
	3120 VA	C	CDS-A1	12	20 A	47	48	--	--	SPACE	--	--	--
						49	50	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	53	54	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	55	56	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	57	58	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	59	60	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	12960 VA	88.58%	11480 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	3120 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	8208 VA	100.00%	8208 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	6864 VA	100.00%	6864 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 35728 VA VA = 99 A
Total Load (Diversified): 34248 VA VA = 95 A
Location of Panel: MECH. / ELEC. 181

Panelboard CA

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MCB | 100 A MCB | 225 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	720 VA	R	R DIESEL LAB 164	12	20 A	1	2	20 A	12	R IDF 159	R	360 VA	
	1440 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	3	4	20 A	12	R IDF 159	R	360 VA	
	1080 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	5	6	20 A	12	IDF 159 - L5-20R	Mi...	1800 VA	
	1080 VA	R	R TRANSMISSION / ELEC. LAB...	12	20 A	7	8	20 A	12	R OFFICE 158C	R	720 VA	
	720 VA	R	R OFFICE 164A	12	20 A	9	10	20 A	12	R Room 157-4, 157-3	R	360 VA	
	1080 VA	R	R ENGINE LAB 164C	12	20 A	11	12	20 A	12	TV IT MAIN/TECH RM 158	R	180 VA	
	540 VA	R	R DIESEL LAB 164	12	20 A	13	14	20 A	12	R ENGINE LAB 164C	R	720 VA	
	1080 VA	R	R ENGINE LAB 164C	12	20 A	15	16	20 A	12	POWER POLE	R	720 VA	
	1080 VA	R	POWER POLE	12	20 A	17	18	20 A	12	POWER POLE	R	720 VA	
	1080 VA	R	POWER POLE	12	20 A	19	20	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	21	22	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	23	24	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	25	26	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37	38	30 A	--	SPD	--	--	--
--	--	--	SPACE	--	--	39	40	30 A	--	"	--	--	--
--	--	--	SPACE	--	--	41	42	30 A	--	"	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	14040 VA	85.61%	12020 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 15840 VA VA = 44 A
Total Load (Diversified): 13820 VA VA = 38 A
Location of Panel: MECH. / ELEC. 167

Panelboard EPH

22000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MLO | 0 A MCB | 225 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	17352 VA	H	FPT-A1, FPT-A6	8	40 A	1	2	40 A	8	FPT-A2, FPT-A3	H	23506 VA	
						3	4						
						5	6						
	5662 VA	H	FPT-A4, FPT-A5	12	20 A	7	8	20 A	12	FCU-A2	H	6801 VA	
--	--	--	SPARE	--	20 A	9	10	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	11	12	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	13	14	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	15	16	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	17	18	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	19	20	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	21	22	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	23	24	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	25	26	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
	15840 VA	R; Miscell...	T-CA	4	70 A	37	38	90 A	3	T-EPL	R; F; C; M	45570 VA	
						39	40						
						41	42						

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	36160 VA	63.83%	23080 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	14602 VA	100.00%	0 VA	620.14	(E)Elevators			
220.60	(H)Heating	53320 VA	100.00%	53320 VA		(WH)Wat. Htr.			
220.60	(F)Fans	528 VA	100.00%	528 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	8320 VA	100.00%	8320 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 114730 VA VA = 138 A
Total Load (Diversified): 87048 VA VA = 105 A
Location of Panel: MECH. / ELEC. 167

Panelboard EPL

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MCB | 150 A MCB | 225 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	760 VA	R	R WOMEN 161, MEN 160, EDF	12	20 A	1	2	20 A	12	EF-A4	F	528 VA	
	720 VA	R	R IDF 159	12	20 A	3	4	20 A	12	R SONNET RING LAB-1 204-1	R	1260 VA	
	540 VA	R	R CORRIDOR 156	12	20 A	5	6	20 A	12	CRP SONET RING	R	1500 VA	
	900 VA	R	R MECH. / ELEC. 162	12	20 A	7	8	20 A	12	CRP SONET RING	R	1500 VA	
	720 VA	R	RECEPTS OFFICE 304	12	20 A	9	10	20 A	12	CRP SONET RING	R	1500 VA	
	720 VA	R	RECEPTACLES FIBER OPTICS...	12	20 A	11	12	20 A	12	CRP SONET RING	R	1500 VA	
	720 VA	R	RECEPTACLES FIBER OPTIC LAB	12	20 A	13	14	20 A	12	CRP SONET RING	R	1500 VA	
	720 VA	R	RECEPTACLES TELEPHONE LAB	12	20 A	15	16	20 A	12	RECEPTS SONNET RING LAB	R	1260 VA	
	720 VA	R	RECEPTACLES TELEPHONE LAB	12	20 A	17	18	20 A	12	RECEPTS STORAGE 300	R	1080 VA	
	1500 VA	R	CRP SONET RING	12	20 A	19	20	20 A	12	CDS-A2	C	3120 VA	
	1500 VA	R	CRP SONET RING	12	20 A	21	22						
	1500 VA	R	CRP SONET RING	12	20 A	23	24	20 A	--	SPARE	--	--	--
	4160 VA	C	DSCU-B2/DS-B2	10	25 A	25	26	25 A	10	DSCU-B3/DS-B3	C	4160 VA	
						27	28						
	8320 VA	M	SONET RING	6	60 A	29	30	25 A	10	DSCU-A2/DS-A2	C	3162 VA	
						31	32						
--	--	--	SPACE	--	--	33	34	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	35	36	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	37	38	30 A	--	SPD	--	--	--
--	--	--	SPACE	--	--	39	40	30 A	--	"	--	--	--
--	--	--	SPACE	--	--	41	42	30 A	--	"	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	22120 VA	72.60%	16060 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	14602 VA	100.00%	14602 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	528 VA	100.00%	528 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	8320 VA	100.00%	8320 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 45570 VA VA = 126 A
Total Load (Diversified): 39510 VA VA = 110 A
Location of Panel: MECH. / ELEC. 167

Panelboard EH

14000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MLO | 0 A MCB | 100 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	4654 VA	H	EUH-A1	12	20 A	1	2	30 A	10	T-EL	L; R; C; M	8428 VA	
						3	4						
						5	6						
--	--	--	SPACE	--	--	7	8	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	9	10	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	11	12	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	13	14	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	15	16	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	17	18	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	19	20	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	21	22	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	23	24	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	3240 VA	100.00%	3240 VA	210.20(a)	(L)Lighting	1168 VA	125.00%	1460 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	0 VA	620.14	(E)Elevators			
220.60	(H)Heating	4654 VA	100.00%	4654 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	900 VA	100.00%	900 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 13082 VA VA = 16 A
Total Load (Diversified): 10254 VA VA = 12 A
Location of Panel: RECEIVING / STORAGE 179

Panelboard EL

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MCB | 60 A MCB | 100 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1168 VA	L	LIGHTING I.C.C.	12	20 A	1	2	20 A	12	AUTO-ROLL UP DOOR - 179	M	900 VA	
	3120 VA	C	DSCU-A1/DS-A1	12	20 A	3	4	20 A	12	ICC 176	R	900 VA	
						5	6	20 A	12	ICC 176	R	1080 VA	
--	--	--	SPARE	--	20 A	7	8	20 A	12	RECEIVING/STOR 179	R	720 VA	
--	--	--	SPARE	--	20 A	9	10	20 A	12	RECEIVING/STOR 179	R	540 VA	
--	--	--	SPARE	--	20 A	11	12	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	13	14	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	15	16	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	17	18	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	19	20	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	21	22	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	23	24	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	25	26	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	3240 VA	100.00%	3240 VA	210.20(a)	(L)Lighting	1168 VA	125.00%	1460 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	3120 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	900 VA	100.00%	900 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 8428 VA VA = 23 A
Total Load (Diversified): 8720 VA VA = 24 A
Location of Panel: RECEIVING / STORAGE 179

Panelboard IML

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating
Mains Type: MCB | 250 A MCB | 250 A BUS (Copper) | -
X Single | Double | Feed - Thru
Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1080 VA	R	R TOOL STORAGE 158A	12	20 A	1	2	20 A	12	RECEPTS IT/MAIN. TECH	R	720 VA	
	1080 VA	R	RECEPTS IT/MAIN TECH	12	20 A	3	4	20 A	12	DRILL PRESS I.T./MAIN TECH R...	R	1656 VA	
	1656 VA	R	DRILL PRESS I.T./MAIN TECH R...	12	20 A	5	6	20 A	12	RECEPTS IT/MAIN TECH RM 158	R	900 VA	
	360 VA	R	CRP MISC.	12	20 A	7	8	20 A	12	CRP E-TRAIN	R	1500 VA	
	1080 VA	R	RECEPTS OFFICE 158	12	20 A	9	10	20 A	12	CRP E-TRAIN	R	1500 VA	
	1500 VA	R	E-TRAIN	12	20 A	11	12	20 A	12	E-TRAIN	R	1500 VA	
	1500 VA	R	E-TRAIN	12	20 A	13	14	20 A	12	E-TRAIN	R	1500 VA	
	1500 VA	R	E-TRAIN	12	20 A	15	16	20 A	12	E-TRAIN	R	1500 VA	
	1500 VA	R	PROGRAMMABLE CONTROLLE...	12	20 A	17	18	20 A	12	E-TRAIN	R	1500 VA	
	2880 VA	R	CRP HYDRAULIC PNEUMATIC...	10	30 A	19	20	20 A	12	CRP HYDRAULIC PNEUMATIC...	R	2880 VA	
	1500 VA	R	PROGRAMMABLE CONTROLLE...	12	20 A	21	22	20 A	12	CRP HYDRAULIC PNEUMATIC...	R	2880 VA	
	2880 VA	R	CRP HYDRAULIC PNEUMATIC...	12	20 A	23	24	20 A	12	CRP HYDRAULIC PNEUMATIC...	R	2880 VA	
	900 VA	M	ENGINE LAB 164C - Roll-up Door	12	20 A	25	26	20 A	12	CRP MISC.	R	360 VA	
	360 VA	R	CRP MISC.	12	20 A	27	28	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	29	30	20 A	--	SPARE	--	--	--
	15000 VA	R	60A BUSWAY ENGINE TRAINER	6	60 A	31	32	60 A	6	60A BUSWAY ENGINER TRAINER	R	15000 VA	
						33	34						
						35	36						
	10400 VA	R	60A BUSWAY PUMP TRAINER	6	60 A	37	38	20 A	12	PROGRAMMABLE CONTROLLE...	R	1500 VA	
						39	40	20 A	12	PROGRAMMABLE CONTROLLE...	R	1500 VA	
						41	42	20 A	12	PROGRAMMABLE CONTROLLE...	R	1500 VA	
	1500 VA	R	PROGRAMMABLE CONTROLLE...	12	20 A	43	44	20 A	12	PROGRAMMABLE CONTROLLE...	R	1500 VA	
	1500 VA	R	PROGRAMMABLE CONTROLLE...	12	20 A	45	46	20 A	12	PROGRAMMABLE CONTROLLE...	R	1500 VA	
	1500 VA	R	PROGRAMMABLE CONTROLLE...	12	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	51	52	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	53	54	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	55	56	30 A	--	SPD	--	--	--
--	--	--	SPACE	--	--	57	58	30 A	--	-	--	--	--
--	--	--	SPACE	--	--	59	60	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	92552 VA	55.40%	51276 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	900 VA	100.00%	900 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 93452 VA VA = 259 A
Total Load (Diversified): 52176 VA VA = 145 A
Location of Panel: Space 260

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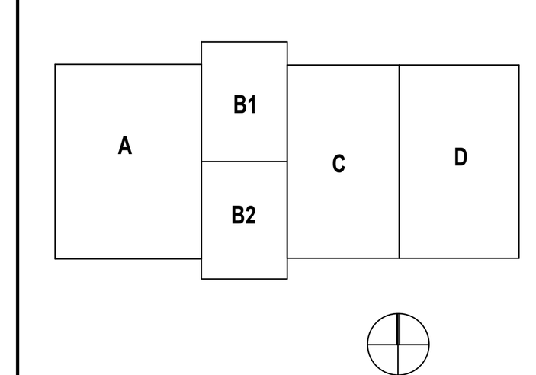
7/2/2015 8:37:22 AM

PBK
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center
26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN
PLAN NORTH

CLIENT
Texas State Technical College
PROJECT NUMBER
14255
DATE
June 10, 2015
DRAWN BY
DBR
CHECKED BY
DBR
REVISIONS

No.	Description	Date
1	Addendum 1	06.19.2015
2	Addendum 2	07.01.2015

100% Construction Documents

PANEL SCHEDULES

JONES DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston , TX 78042
713.914.4333 p
713.914.9260 f
TBPE Firm Registration N0. 13002

JONES DBR Project Number 156003.000

ZM	JC	KD/DC	CF/MG	MC/JL

E-501

Panelboard ADP

50000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB | 800 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	0 VA	Other	T-CB	1/0	150 A	1/3/5	2/4/6	250 A	250	T-AC	L; R; F; C; K; M	278530 VA	
	49412 VA	L; EL	AH	3	100 A	7/9/11	8/10/12	150 A	1/0	T-AL	R; WH; F; ...	79262 VA	
	43212 VA	MT	MT WATER JET ROOM 143E	3	90 A	13/15/17	14/16/18	50 A	8	11.PC1 PLASMA CUTTER	M	29085 VA	
	42004 VA	R; F; MT; M	T-CL	4	70 A	19/21/23	20/22/24	50 A	8	11.PC2 PLASMA CUTTER	M	29085 VA	
--	--	--	SPARE	--	225 A	25	26	225 A	--	SPARE	--	--	--
--	--	--	-	--	--	27	28	--	--	-	--	--	--
--	--	--	-	--	--	29	30	--	--	-	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37	38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39	40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41	42	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	302730 VA	51.65%	156365 VA	210.20(a)	(L)Lighting	49321 VA	125.00%	61651 VA
220.56	(K)Kitchen	9000 VA	70.00%	6300 VA		(EL)Ext. Ltg.	468 VA	125.00%	585 VA
220.60	(C)Cooling	12480 VA	100.00%	12480 VA	620.14	(E)Elevators	500 VA	100.00%	500 VA
220.60	(H)Heating			0 VA		(WH)Wat. Htr.	2500 VA	100.00%	2500 VA
220.60	(F)Fans	6602 VA	100.00%	6602 VA	220.5	(MT)Lrg. Motor	51772 VA	120.87%	62575 VA
	(M)Misc.	115354 VA	100.00%	115354 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 550727 VA VA = 662 A
Total Load (Diversified): 424912 VA VA = 511 A
Location of Panel: MAIN ELEC. 138A

Panelboard AHAC

50000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB | 400 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	32570 VA	H	FPT-1.15, 1.16, 1.17, 1.18, 1.19	6	60 A	1/3/5	2/4/6	40 A	8	FPT-1.6, FPT-1.20	H	23244 VA	
	25742 VA	H	FPT-1.8, 1.9,1.10	6	60 A	7/9/11	8	20 A	12	FPT-1-11	H	2997 VA	
							10	20 A	12	FPT-1.13	H	2997 VA	
							12	20 A	--	SPARE	--	--	--
	21742 VA	H	FPT-1.1, 1.2, 1.3, 1.4, 1.5	6	60 A	13/15/17	14/16/18	60 A	6	FPT-1.7, 1.12, 1.14	H	30158 VA	
	9141 VA	F	EF-C4	12	20 A	19/21/23	20/22/24	20 A	12	FPT-1.3, FPT-1.4	H	12662 VA	
	4654 VA	H	EUH-C1	12	20 A	25/27/29	26/28/30	20 A	12	11.CT COOLING TOWER	C	12465 VA	
	6801 VA	H	FCU-C1	8	40 A	31	32/34/36	225 A	4/0	225A 11.PC PONY CHILLER	R	78945 VA	
	6801 VA	H	FCU-C2	8	40 A	33							
	6801 VA	H	FCU-C3	8	40 A	35							
--	--	--	SPACE	--	--	37	38	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	39	40	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	43	44	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	45	46	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	47	48	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	49	50	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	51	52	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	53	54	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	55	56	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	57	58	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	59	60	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	78945 VA	56.33%	44473 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	12465 VA	100.00%	0 VA	620.14	(E)Elevators			
220.60	(H)Heating	177167 VA	100.00%	177167 VA		(WH)Wat. Htr.			
220.60	(F)Fans	9141 VA	100.00%	9141 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 277718 VA VA = 334 A
Total Load (Diversified): 230781 VA VA = 278 A
Location of Panel: MAIN ELEC. 138A

Panelboard AH

25000 AIC Rating
X New
Existing

480/277 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB | 225 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	3613 VA	L	LIGHTING LVL 1 AREA B2	12	20 A	1	2	20 A	12	LIGHTING ARE B...	L; EL	2677 VA	
	1317 VA	L	LIGHTING LVL 1 AREA B2	12	20 A	3	4	20 A	12	LIGHTING CORRIDOR	L; EL	2365 VA	
	2910 VA	L; EL	LIGHTING LVL 1 AREA B1	12	20 A	5	6	20 A	12	LVL 1 AREA B1 LIGHTING	L	2734 VA	
	1716 VA	L	LIGHTING MAIN ELEC 134A	12	20 A	7	8	20 A	12	LIGHTING MECH/ENG CNC	L	3472 VA	
	2296 VA	L	LIGHTING MECH/ENG CNC	12	20 A	9	10	20 A	12	LIGHTING MECH/ENG CNC	L	3584 VA	
	2240 VA	L	LIGHTING A/C REFR. LAB	12	20 A	11	12	20 A	12	LIGHTING COMPUTER LABS	L	1888 VA	
	1814 VA	L	LIGHTING CORRIDOR LVL 1 C	12	20 A	13	14	20 A	12	LIGHTING LEVEL 2 AREA C	L	1904 VA	
	2132 VA	L; EL	LIGHTING CORRIDOR LVL 2...	12	20 A	15	16	20 A	12	LIGHTING LVL 2 AREA B1	L	3583 VA	
	3063 VA	L	LIGHTING AREA B2 LVL 2	12	20 A	17	18	20 A	12	LIGHTING LVL 2 AREA B2	L; EL	3711 VA	
	2392 VA	L	LIGHTING AC/REF. LAB	12	20 A	19	20	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	21	22	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	23	24	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	25	26	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37	38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39	40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41	42	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting	49081 VA	125.00%	61351 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.	468 VA	125.00%	585 VA
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 49549 VA VA = 60 A
Total Load (Diversified): 61936 VA VA = 74 A
Location of Panel: MAIN ELEC. 138A

Panelboard AL

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MCB | 250 A MCB | 250 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

2

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	540 VA	R	R ELEV. MACH. RM. 113	12	20 A	1	2	20 A	12	R GENERAL CLASSROOM 128	R	1260 VA	
	720 VA	R	RECEPTACLES RM 110	12	20 A	3	4	20 A	12	R GENERAL CLASSROOM 127	R	1260 VA	
	1260 VA	R	RECEPTS CLASSROOM 118	12	20 A	5	6	20 A	12	R MDF 126	R	1080 VA	
--	--	--	SPARE	--	20 A	7	8	20 A	12	RECEPTS 104, 105	R	1080 VA	
	720 VA	R	RECEPTS COMPUTER LAB 119	12	20 A	9	10	20 A	12	RECEPTS COMPUTER LAB 119	R	720 VA	
	900 VA	R	RECEPTS CONF. ROOM 116	12	20 A	11	12	20 A	12	CORRIDOR RECEPTS	R	900 VA	
	230 VA	R; F	R TOILET 112B/EF-B1.2	12	20 A	13	14	20 A	12	RECEPTACLES AREA B2	R	1440 VA	
	1860 VA	R	AC RECEPTS WORKROOM 111	12	20 A	15	16	20 A	12	RECEPTS RM 106, 108	R	1260 VA	
	180 VA	R	ELEV. PIT GFI RECEPTACLE	12	20 A	17	18	20 A	12	AC RECEPTS WORKROOM 111	R	900 VA	
	720 VA	R	RECEPTS CORRIDOR 103	12	20 A	19	20	20 A	12	RECEPTS AREA B...	R	1260 VA	
	1000 VA	M	HAND DRYER	12	20 A	21	22	20 A	12	RECEPTACLES RM 117	R	540 VA	
	900 VA	R	RECEPTACLES MECH. MEZZ. 248	12	20 A	23	24	20 A	12	RECEPTION RECEPTACLES	R	720 VA	
	540 VA	R	RECEPTACLES	12	20 A	25	26	20 A	12	RECEPTACLES MECH MEZZ. 248	R	900 VA	
	900 VA	R	RECEPTACLES CORRIDOR	12	20 A	27	28	20 A	12	R CONFERENCE ROOM 125	R	900 VA	
	1260 VA	R	R GENERAL CLASSROOM 123	12	20 A	29	30	20 A	12	EDF, RESTROOM GFIS	R	1160 VA	
	1500 VA	R	VENDING MACHINE	12	20 A	31	32	20 A	12	VENDING MACHINE	R	1500 VA	
	1260 VA	R	R MAIN ELEC. 134A	12	20 A	33	34	20 A	12	VENDING MACHINE	R	1500 VA	
	500 VA	E	ELEV. CAB LIGHTS AND...	12	20 A	35	36	20 A	12	ELEV. SUMP PUMP	M	1920 VA	
--	--	--	SPARE	--	20 A	37	38	20 A	12	FIRE SMOKE DAMPER	M	1000 VA	
--	--	--	SPARE	--	20 A	39	40	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	53	54	20 A	--	SPARE	--	--	--
	42972 VA	R; WH; F; K	AL2	1/0	150 A	55/57/59	56	30 A	--	SPD	--	--	--
							58	30 A	--	-	--	--	--
							60	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	65740 VA	57.61%	37870 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen	4200 VA	80.00%	3360 VA		(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators	500 VA	100.00%	500 VA
220.60	(H)Heating			0 VA		(WH)Wat. Htr.	2500 VA	100.00%	2500 VA
220.60	(F)Fans	2402 VA	100.00%	2402 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	3920 VA	100.00%	3920 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 79262 VA VA = 220 A
Total Load (Diversified): 50552 VA VA = 140 A
Location of Panel: MAIN ELEC. 138A

Panelboard AC

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MCB | 500 A MCB | 500 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

2

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	27075 VA	R	100A BUSWAY 11.FR	3	100 A	1/3/5	2/4/6	225 A	4/0	225A BUSWAY 11.HP/11.AC	R	52000 VA	
	52000 VA	R	225A BUSWAY 11.AC	4/0	225 A	7/9/11	8/10/12	60 A	6	11.ETR BUSWAY	R	3610 VA	
	3610 VA	R	11.ETR BUSWAY	6	60 A	13/15/17	14/16/18	100 A	3	100A BUSWAY 11.FR FURNACE	R	27075 VA	
	360 VA	R	CRP MISC	12	20 A	19	20	20 A	12	CRP MISC.	R	360 VA	
	720 VA	R	R HVAC TECHNOLOGY-1 134-1	12	20 A	21	22	20 A	12	RECEPTS IDF	R	900 VA	
	1800 VA	R	11.TTR T-TRAINER	12	20 A	23/25	24/26	20 A	12	11.TTR T-TRAINER	R	1800 VA	
	1800 VA	R	11.TTR T-TRAINER	12	20 A	27/29	28/30	20 A	12	11.TTR T-TRAINER	R	1800 VA	
	1800 VA	R	11.TTR T-TRAINER	12	20 A	31/33	32/34	20 A	12	11.TTR T-TRAINER	R	1800 VA	
	240 VA	L	Cooler Lights	12	20 A	35	36	20 A	--	SPARE	--	--	--
	1000 VA	M	Door anti-sweat heater	12	20 A	37	38	20 A	--	SPARE	--	--	--
	1000 VA	M	Door anti-sweat heater	12	20 A	39	40	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
	42240 VA	C; K; M	AC3	1/0	150 A	49/51/53	50/52/54	150 A	1/0	AC2	R; F; C; M	55540 VA	
--	--	--	SPACE	--	--	55	56	30 A	--	SPD	--	--	--
--	--	--	SPACE	--	--	57	58	30 A	--	-	--	--	--
--	--	--	SPACE	--	--	59	60	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	225110 VA	52.22%	117555 VA	210.20(a)	(L)Lighting	240 VA	125.00%	300 VA
220.56	(K)Kitchen	4800 VA	100.00%	4800 VA		(EL)Ext. Ltg.			
220.60	(C)Cooling	12480 VA	100.00%	12480 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	1800 VA	100.00%	1800 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	34100 VA	100.00%	34100 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 278530 VA VA = 773 A
Total Load (Diversified): 171035 VA VA = 475 A
Location of Panel: MAIN ELEC. 138A

Panelboard AC2

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB | 225 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1080 VA	R	R HVAC TECHNOLOGY-1 134-1	12	20 A	1	2	20 A	12	R HVAC TECHNOLOGY-1 134-1	R	1260 VA	
	2400 VA	R	11.DBM DUCTBOARD MACHINE	12	20 A	3	4	20 A	12	WP GFI RECEPTS	R	900 VA	
	720 VA	R	RECEPTS TOOL STORAGE	12	20 A	5	6	20 A	12	RECEPTS OFFICE 134B,134C	R	1440 VA	
	900 VA	M	AUTO DOOR ROLL-UP	12	20 A	7	8	20 A	12	BRAZING RECEPTACLES	R	1080 VA	
	3120 VA	R	11.RT REF TRAINER	12	20 A	9/11	10/12	20 A	12	11.RT REF TRAINER	R	3120 VA	
	3120 VA	R	11.RT REF TRAINER	12	20 A	13/15	14/16	20 A	12	11.RT REF TRAINER	R	3120 VA	
	3120 VA	R	11.RT REF TRAINER	12	20 A	17/19	18/20	20 A	12	11.RT REF TRAINER	R	3120 VA	
	3120 VA	R	11.RT REF TRAINER	12	20 A	21/23	22/24	20 A	12	11.RT REF TRAINER	R	3120 VA	
	3120 VA	R	11.RT REF TRAINER	12	20 A	25/27	26/28	20 A	12	11.RT REF TRAINER	R	3120 VA	
	720 VA	R	GFI RECEPTS/GWH-1 RM 130	12	20 A	29	30	20 A	12	BRAZING RECEPTACLES	R	1080 VA	
	1360 VA	R; F	WATER FOUNTAIN/GFI R /EF-C1	12	20 A	31	32	20 A	12	R GENERAL COMPUTER LAB 141	R	720 VA	
	720 VA	R	RECEPTS COMPUTER LAB	12	20 A	33	34	20 A	12	CORRIDOR RECEPTACLES	R	1080 VA	
	720 VA	R	R GENERAL COMPUTER LAB 140	12	20 A	35	36	20 A	12	R GENERAL COMPUTER LAB 142	R	720 VA	
	3120 VA	C	CDS-C2	12	20 A	37/39	38/40	20 A	12	CDS-C1	C	3120 VA	
	1200 VA	F	EF-C5	12	20 A	41	42	20 A	--	SPARE	--	--	--
						43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	55	56	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	57	58	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	59	60	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	46600 VA	60.73%	28300 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	6240 VA	100.00%	6240 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	1800 VA	100.00%	1800 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.	900 VA	100.00%	900 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 55540 VA VA = 154 A
Total Load (Diversified): 37240 VA VA = 103 A
Location of Panel: MAIN ELEC. 138A

Panelboard AC3

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB | 225 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	3120 VA	M	11.CT C-TRAINER	12	20 A	1/3	2/4	20 A	12	11.CT C-TRAINER	M	3120 VA	
	3120 VA	M	11.CT C-TRAINER	12	20 A	5/7	6/8	20 A	12	11.CT C-TRAINER	M	3120 VA	
	3120 VA	M	11.CT C-TRAINER	12	20 A	9/11	10/12	20 A	12	11.CT C-TRAINER	M	3120 VA	
	3120 VA	M	11.CT C-TRAINER	12	20 A	13/15	14/16	20 A	12	11.CT C-TRAINER	M	3120 VA	
	3120 VA	M	11.CT C-TRAINER	12	20 A	17/19	18/20	20 A	12	11.CT C-TRAINER	M	3120 VA	
	3120 VA	C	DSCU-C1/DS-C1	12	20 A	21/23	22/24	20 A	12	DSCU-C3/DS-C3	C	3120 VA	
	4800 VA	K	COMPRESSOR RACK FOR COOLERS	12	20 A	25/27	26	20 A	--	SPARE	--	--	--
							28	--	--	-	--	--	--
--	--	--	SPARE	--	20 A	29	30	20 A	--	SPARE	--	--	--
--	--	--	-	--	--	31	32	--	--	-	--	--	--
--	--	--	SPARE	--	20 A	33	34	20 A	--	SPARE	--	--	--
--	--	--	-	--	--	35	36	--	--	-	--	--	--
--	--	--	SPARE	--	20 A	37	38	20 A	--	SPARE	--	--	--
--	--	--	-	--	--	39	40	--	--	-	--	--	--
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	47	48	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	49	50	--	--	SPACE	--	--	--
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--	--	--	SPACE	--	--	55	56	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	57	58	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	59	60	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen	4800 VA	100.00%	4800 VA		(EL)Ext. Ltg.			
220.60	(C)Cooling	6240 VA	100.00%	6240 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	31200 VA	100.00%	31200 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 42240 VA VA = 117 A
Total Load (Diversified): 42240 VA VA = 117 A
Location of Panel: MAIN ELEC. 138A

Panelboard CB

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MCB | 250 A MCB | 250 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	900 VA	R	CLASSROOM 128	12	20 A	1	2	20 A	12	MDF - SECURITY RECEPT'S	R	360 VA	
	2288 VA	M	MDF - UPS (NEMA L6-20R)	12	20 A	3/5	4/6	20 A	12	MDF - UPS (NEMA L6-20R)	M	2288 VA	
	900 VA	R	CLASSROOM 127	12	20 A	7	8	20 A	12	CONF. ROOM 125, LOBBY TV	R	720 VA	
	900 VA	R	CLASSROOM 123	12	20 A	9	10	20 A	12	COMPUTERS	R	1260 VA	
	1260 VA	R	COMPUTERS	12	20 A	11	12	20 A	12	COMPUTERS	R	1080 VA	
	1080 VA	R	COMPUTERS	12	20 A	13	14	20 A	12	COMPUTERS	R	1080 VA	
	1080 VA	R	COMPUTERS	12	20 A	15	16	20 A	12	COMPUTERS	R	1260 VA	
	1080 VA	R	COMPUTERS	12	20 A	17	18	20 A	12	COMPUTERS	R	1080 VA	
	1080 VA	R	COMPUTERS	12	20 A	19	20	20 A	12	COMPUTERS	R	1080 VA	
	1260 VA	R	COMPUTERS	12	20 A	21	22	20 A	12	COMPUTERS	R	1080 VA	
	900 VA	R	COMPUTERS/TV AREA B2	12	20 A	23	24	20 A	12	COMPUTERS	R	1080 VA	
	1080 VA	R	COMPUTERS	12	20 A	25	26	20 A	12	COMPUTERS/TV AREA B2	R	1080 VA	
	1080 VA	R	COMPUTERS	12	20 A	27	28	20 A	12	COMPUTERS AREA B2	R	540 VA	
	540 VA	R	COMPUTERS/TV AREA B2	12	20 A	29	30	20 A	12	COMPUTERS AREA B2	R	720 VA	
	1080 VA	R	COMPUTERS AREA B2	12	20 A	31	32	20 A	12	COMPUTERS AREA B2	R	540 VA	
	1500 VA	R	COPIER	12	20 A	33	34	20 A	12	COMPUTERS	R	720 VA	
	900 VA	R	COMPUTERS	12	20 A	35	36	20 A	12	COMPUTER	R	540 VA	
	720 VA	R	COMPUTERS TESTING ROOM	12	20 A	37	38	20 A	12	COMPUTERS RM 104, 105, 107	R	1080 VA	
	720 VA	R	COMPUTERS RM 106, 108	12	20 A	39	40	20 A	12	R Room 134-1, 134B, 134C	R	900 VA	
	900 VA	R	TV	12	20 A	41	42	20 A	12	IDF-SECURITY RECEPTS	R	360 VA	
	2288 VA	M	IDF	12	20 A	43/45	44/46	20 A	12	IDF	M	2288 VA	
	1080 VA	R	QUAD WITH USB'S LOUNGE 126	12	20 A	47	48	20 A	12	QUAD RECEPTS WITH USB'S...	R	720 VA	
--	--	--	SPARE	--	20 A	49	50	20 A	12	COMPUTERS RM 118	R	1080 VA	
--	--	--	SPARE	--	20 A	51	52	20 A	12	COMPUTERS RM 118	R	1080 VA	
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--
	45796 VA	Other; Re...	CB2	1/0	150 A	55/57/59	56	30 A	--	SPD	--	--	--
							58	30 A	--	-	--	--	--
							60	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	76340 VA	56.55%	43170 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	13728 VA	100.00%	13728 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 94428 VA VA = 262 A
Total Load (Diversified): 61258 VA VA = 170 A
Location of Panel: MAIN ELEC. 138A

Panelboard CL

10000 AIC Rating
X New
Existing

120/208 Wye Volt, 3 Phase, 4 Wire | 1 Section | Type 1 -Nema Rating | Mains Type: MCB | 150 A MCB | 225 A BUS (Copper) | - | X Single | Double | Feed - Thru | Mounting | X Surface | Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	540 VA	R	CRP MISC.	12	20 A	1	2	20 A	12	TON PRESS TP	M	864 VA	
	900 VA	M	AUTO ROLL-UP DOOR	12	20 A	3	4	20 A	12	RECEPTS MECHANICAL...	R	1080 VA	
	1080 VA	R	RECEPTS TOOL STORAGE 143D	12	20 A	5	6	20 A	12	RECEPTS OFFICE 143C	R	1440 VA	
	1080 VA	R	RECEPTACLES MECH/ENGINEER	12	20 A	7	8	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1500 VA	M	11.HG HAND GRINDER	12	20 A	9	10	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1500 VA	M	11.HG HAND GRINDER	12	20 A	11	12	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1500 VA	M	11.HG HAND GRINDER	12	20 A	13	14	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1500 VA	M	11.HG HAND GRINDER	12	20 A	15	16	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1500 VA	M	11.HG HAND GRINDER	12	20 A	17	18	20 A	12	11.HG HAND GRINDER	M	1500 VA	
	1080 VA	R	RECEPTS WATER JET ROOM...	12	20 A	19	20	20 A	12	RECEPTS METALLURGY LAB...	R	1260 VA	
	2140 VA	MT	SURFACE GRINDER	10	25 A	21/23	22/24	25 A	10	SURFACE GRINDER	MT	2140 VA	
	2140 VA	MT	SURFACE GRINDER	10	25 A	25/27	26/28	25 A	10	SURFACE GRINDER	MT	2140 VA	
--	--	--	SPARE	--	20 A	29	30	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	31	32	20 A	--	SPARE	--	--	--
	900 VA	M	Auto Door Roll up	12	20 A	33	34	20 A	12	RECEPTS	R	360 VA	
	1200 VA	F	EF-C3	12	20 A	35	36	20 A	12	RECPTS FINE GRINDING 143A	R	1260 VA	
	900 VA	R	R EQUIPMENT PLATFORM 822	12	20 A	37	38	20 A	12	R EQUIPMENT PLATFORM 822	R	900 VA	
	900 VA	R	R EQUIPMENT PLATFORM 822	12	20 A	39	40	20 A	12	EF-C2	F	1200 VA	
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	55	56	30 A	--	SPD	--	--	--
--	--	--	SPARE	--	20 A	57	58	30 A	--	-	--	--	--
--	--	--	SPARE	--	20 A	59	60	30 A	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	11880 VA	92.09%	10940 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans	2400 VA	100.00%	2400 VA	220.5	(MT)Lrg. Motor	8560 VA	106.25%	9095 VA
	(M)Misc.	19164 VA	100.00%	19164 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 42004 VA VA = 117 A
Total Load (Diversified): 41599 VA VA = 115 A
Location of Panel: MAIN ELEC. 138A

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7/2/2015 9:22:06 AM

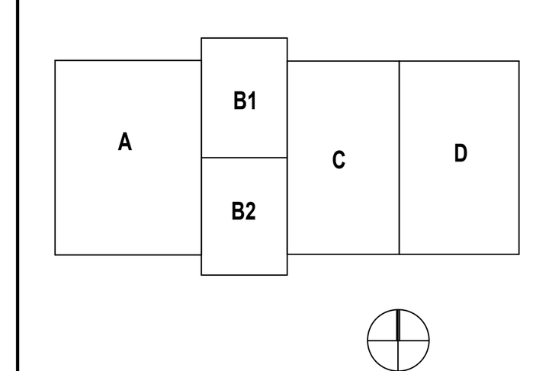
PBK

11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN PLAN NORTH

CLIENT: Texas State Technical College
PROJECT NUMBER: 14255
DATE: June 10, 2015
DRAWN BY: DBR
CHECKED BY: DBR

REVISIONS

No.	Description	Date
1	Addendum 1	06.19.2015
2	Addendum 2	07.01.2015

100% Construction Documents

PANEL SCHEDULES

JONES DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston , TX 78042
713.914.4333 p
713.914.9260 f
TBPE Firm Registration N0. 13002

JONES DBR Project Number 156003.000

ZM | JC | KD/DC | CF/MG | MC/JL

E-502

Panelboard CPH

42000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 225 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	3584 VA	L	LIGHTING 1ST/2ND SEM. AREA D	12	20 A	1	2	20 A	12	LIGHTING 3RD/4TH SEMESTER...	L	3584 VA	
	2004 VA	L	LIGHTING WELDING AREA D	12	20 A	3	4	20 A	12	LIGHTING WELDING AREA D	L	1688 VA	
	6801 VA	H	FCU-D1	8	40 A	5	6	20 A	--	SPARE	--	--	--
	6801 VA	H	FCU-D2	12	20 A	7	8	20 A	--	SPARE	--	--	--
	3971 VA	F	EF-D1	12	20 A	9, 11, 13	10, 12	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	15, 17	14, 16	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	19, 21	18, 20	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	23, 25	22, 24, 26	15 A	12	EF-D2	F	6316 VA	
--	--	--	SPACE	--	--	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37	38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39	40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41	42	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting	10860 VA	125.00%	13575 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating	13601 VA	100.00%	13601 VA		(WH)Wat. Htr.			
220.60	(F)Fans	10287 VA	100.00%	10287 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder	82080 VA	79.17%	64980 VA					

Total Connected Load: 116828 VA VA = 141 A
Total Load (Diversified): 102443 VA VA = 123 A
Location of Panel: MECH. / ELEC. 153

Panelboard CPL

10000 AIC Rating · X New · Existing

120/208 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MCB | 250 A MCB · 250 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	720 VA	R	WELDER RECEPTACLES	12	20 A	1	2	20 A	12	WELDER RECEPTACLES	R	900 VA	
	1260 VA	R	WELDER RECEPTACLES	12	20 A	3	4	20 A	12	WELDER RECEPTACLES	R	1260 VA	
	1080 VA	R	WELDER RECEPTACLES	12	20 A	5	6	20 A	12	WELDER RECEPTACLES	R	1260 VA	
	1260 VA	R	WELDER RECEPTACLES	12	20 A	7	8	20 A	12	WELDER RECEPTACLES	R	1080 VA	
	1260 VA	R	WELDER RECEPTACLES	12	20 A	9	10	20 A	12	WELDER RECEPTACLES	R	720 VA	
	720 VA	R	WELDER RECEPTACLES	12	20 A	11	12	20 A	12	WELDER RECEPTACLES	R	720 VA	
	720 VA	R	WELDER RECEPTACLES	12	20 A	13	14	20 A	12	WELDER RECEPTACLES	R	720 VA	
	1080 VA	R	WELDER RECEPTACLES	12	20 A	15	16	20 A	12	RECEPTACLES AREA D	R	720 VA	
	1080 VA	R	RECEPTS ADVANCED PIPE	12	20 A	17	18	20 A	12	RECEPTS AUTO/WELDING	R	540 VA	
	900 VA	R	RECEPTS ADVANCED PIPE	12	20 A	19	20	20 A	12	RECEPTS ADVANCED PIPE	R	900 VA	
	4830 VA	R	TRACK TORCH/PIPE BEVELER	8	50 A	21	22	20 A	12	PIPE BEVELER ADVANCED PIPE	R	880 VA	
	4830 VA	R	TRACK TORCH/PIPE BEVELER	8	50 A	23	24	50 A	8	TRACK TORCH/PIPE BEVELER	R	4830 VA	
	4830 VA	R	TRACK TORCH	8	50 A	25, 27	26	50 A	8	TRACK TORCH/PIPE BEVELER	R	4830 VA	
	8320 VA	W	STICK WELDER	6	60 A	29, 31	28, 30, 32	25 A	10	E-CELL ROBOT	M	3000 VA	
	720 VA	R	WELDER RECEPTACLE	12	20 A	33	34	20 A	12	PIPE BEVELER	R	440 VA	
	440 VA	R	PIPE BEVELER	12	20 A	35	36	20 A	12	PIPE BEVELER	R	440 VA	
	440 VA	R	PIPE BEVELER	12	20 A	37	38, 40	50 A	8	TRACK TORCH	R	4830 VA	
--	--	--	SPARE	--	20 A	39							
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	51	52	--	--	SPACE	--	--	--
--	--	--	SPARE	--	20 A	53	54	--	--	SPACE	--	--	--
	27200 VA	R; C; M	CPL2	3	100 A	55, 57, 59	56	20 A	--	SPD-3	--	--	--
							58	--	--	-	--	--	--
							60	--	--	-	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	72620 VA	56.89%	41310 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	3120 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	5700 VA	100.00%	5700 VA		(SP)Sub Pnl.			
630.00	(W)Welder	8320 VA	100.00%	8320 VA					

Total Connected Load: 89760 VA VA = 249 A
Total Load (Diversified): 58450 VA VA = 162 A
Location of Panel: MECH. / ELEC. 153

Panelboard CPL2

10000 AIC Rating · X New · Existing

120/208 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 225 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1500 VA	R	PLASMA CUTTER AUTO WELDER	12	20 A	1	2	20 A	12	WATER CUT OFF	R	1500 VA	
	1500 VA	R	TRACK WELDER AUTOMATION	12	20 A	3	4	20 A	12	TUBE WELDER AUTOMATION	R	1500 VA	
	900 VA	R	OFFICE COMPUTERS	12	20 A	5	6	20 A	12	OFFICE COMPUTERS	R	900 VA	
	900 VA	R	RECEPTACLES AREA D	12	20 A	7	8	20 A	12	OFFICE RECEPTACLES	R	720 VA	
	880 VA	R	RADIANT HEATER ELEC....	12	20 A	9	10	20 A	12	RADIANT HEATER ELEC...	R	880 VA	
	880 VA	R	RADIANT HEATER ELEC...	12	20 A	11	12	20 A	12	RADIANT HEATER ELEC...	R	880 VA	
	1260 VA	R	RECEPTS WELDING STORAGE	12	20 A	13	14	20 A	12	RADIANT HEATER ELEC...	R	880 VA	
	720 VA	R	OFFICE RECEPTACLES	12	20 A	15	16	20 A	12	ELEC RM RECEPTACLES	R	720 VA	
	540 VA	R	R 1ST SEMESTER CORD REEL	12	20 A	17	18	20 A	12	R 2ND SEMESTER CORD REEL	R	540 VA	
	540 VA	R	R 3RD SEMESTER CORD REEL	12	20 A	19	20	20 A	12	R 4TH SEMESTER CORD REEL	R	540 VA	
	1440 VA	R	OFFCIE 151 RECEPTS	12	20 A	21	22	20 A	12	RECEPTACLES AREA D	R	1080 VA	
	180 VA	R	R AUTOMATION WELDING COR...	12	20 A	23	24	20 A	12	Auto Roll-up Door	M	900 VA	
	900 VA	M	Auto Roll-Up Door	12	20 A	25	26	20 A	12	Auto Roll-up Door	M	900 VA	
--	--	--	SPARE	--	20 A	27	28, 30	20 A	12	CDS-D2	C	3120 VA	
--	--	--	SPARE	--	20 A	29							
--	--	--	SPARE	--	20 A	31	32	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	33	34	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	35	36	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	37	38	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	39	40	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	41	42	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	21380 VA	73.39%	15690 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling	3120 VA	100.00%	3120 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	2700 VA	100.00%	2700 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 27200 VA VA = 75 A
Total Load (Diversified): 21510 VA VA = 60 A
Location of Panel: MECH. / ELEC. 153

Panelboard 1SW

25000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 400 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	13680 VA	W	WELDER	8	50 A	1, 3	2, 4	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	5, 7	6, 8	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	9, 11	10, 12	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	13, 15	14, 16	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	17, 19	18, 20	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	21, 23	22, 24	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	25, 27	26, 28	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	29, 31	30, 32	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	33, 35	34, 36	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	37, 39	38, 40	50 A	8	WELDER	W	13680 VA	
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder	273600 VA	65.75%	179892 VA					

Total Connected Load: 273600 VA VA = 329 A
Total Load (Diversified): 179892 VA VA = 216 A
Location of Panel: 1ST SEMESTER 162

Panelboard 2SW

25000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 400 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	13680 VA	W	WELDER	8	50 A	1, 3	2, 4	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	5, 7	6, 8	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	9, 11	10, 12	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	13, 15	14, 16	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	17, 19	18, 20	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDING	8	50 A	21, 23	22, 24	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	25, 27	26, 28	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	29, 31	30, 32	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	33, 35	34, 36	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	37, 39	38, 40	50 A	8	WELDER	W	13680 VA	
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder	273600 VA	65.75%	179892 VA					

Total Connected Load: 273600 VA VA = 329 A
Total Load (Diversified): 179892 VA VA = 216 A
Location of Panel: 2ND SEMESTER 160

Panelboard 3SW

50000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 400 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	13680 VA	W	WELDER	8	50 A	1, 3	2, 4	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	5, 7	6, 8	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	9, 11	10, 12	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	13, 15	14, 16	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	17, 19	18, 20	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	21, 23	22, 24	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	25, 27	26, 28	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	12	20 A	29, 31	30, 32	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	33, 35	34, 36	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	37, 39	38, 40	50 A	8	WELDER	W	13680 VA	
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder	273600 VA	65.75%	179892 VA					

Total Connected Load: 273600 VA VA = 329 A
Total Load (Diversified): 179892 VA VA = 216 A
Location of Panel: 3RD SEMESTER 154

Panelboard 4SW

50000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 400 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	13680 VA	W	WELDER	8	50 A	1, 3	2, 4	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	5, 7	6, 8	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	9, 11	10, 12	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	13, 15	14, 16	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	17, 19	18, 20	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	21, 23	22, 24	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	25, 27	26, 28	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	29, 31	30, 32	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	33, 35	34, 36	50 A	8	WELDER	W	13680 VA	
	13680 VA	W	WELDER	8	50 A	37, 39	38, 40	50 A	8	WELDER	W	13680 VA	
--	--	--	SPARE	--	20 A	41	42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43	44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45	46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47	48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49	50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51	52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53	54	0 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder	273600 VA	65.75%	179892 VA					

Total Connected Load: 273600 VA VA = 329 A
Total Load (Diversified): 179892 VA VA = 216 A
Location of Panel: 4TH SEMESTER 152

Panelboard CH

50000 AIC Rating · X New · Existing

480/277 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MLO | 0 A MCB · 400 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	2688 VA	L	LIGHTING ADVANCED PIPE	12	20 A	1	2	20 A	12	LIGHTING EXTERIOR STORAGE	L	2240 VA	
	502 VA	EL	EXTERIOR LIGHTING	12	20 A	3	4	20 A	12	LIGHTING MECH. YARD	L	126 VA	
	1668 VA	L	LIGHTING CENTRAL PLANT	12	20 A	5	6, 8	20 A	12	SITE LIGHTING	L	3600 VA	
--	--	--	SPARE	--	20 A	7							
--	--	--	SPARE	--	20 A	9	10	20 A	--	SPARE	--	--	--
	24000 VA	H	CT-1 BASIN HEATER	8	40 A	11, 13, 15	12, 14, 16	20 A	12	CHP-S1	MT	14543 VA	
	24000 VA	H	ALTERNATE CT-2 BASIN HEATER	12	20 A	17, 19, 21	18, 20, 22	20 A	12	CHP-S2	MT	14543 VA	
	24000 VA	H	FUTURE CT-3 BASIN HEATER	12	20 A	23, 25, 27	24, 26, 28	20 A	12	EF-CH1	F	2825 VA	
	4654 VA	H	EUH-D1	12	20 A	29, 31, 33	30, 32, 34	20 A	12	EUH-D2	H	4654 VA	
	9307 VA	MT	CTP-1 (10 HP)	10	30 A	35, 37, 39	36	30 A	--	CTP (ALTERNATIVE)	--	--	--
							38	--	--	-	--	--	--
							40	--	--	-	--	--	--
--	--	--	CTP (FUTURE)	--	30 A	41	42	--	--	SPACE	--	--	--
--	--	--	-	--	--	43	44	--	--	SPACE	--	--	--
--	--	--	-	--	--	45	46	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	47	48	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	49	50	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	51	52	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	53	54	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	55	56	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	57	58	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	59	60	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting	10322 VA	125.00%	12903 VA
220.56	(K)Kitchen					(EL)Ext. Ltg.	528 VA	125.00%	660 VA
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating	81308 VA	100.00%	81308 VA		(WH)Wat. Htr.			
220.60	(F)Fans	2825 VA	100.00%	2825 VA	220.5	(MT)Lrg. Motor	38392 VA	109.47%	42028 VA
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 133376 VA VA = 160 A
Total Load (Diversified): 139724 VA VA = 168 A
Location of Panel: CENTRAL PLANT 155

2

Panelboard CHL

10000 AIC Rating · X New · Existing

120/208 Wye Volt, 3 Phase, 4 Wire · 1 Section · Type 1 -Nema Rating | Mains Type: MCB | 150 A MCB · 225 A BUS (Copper) · - | X Single · Double · Feed - Thru | Mounting · X Surface · Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	900 VA	M	Auto Roll-up Door	12	20 A	1	2	20 A	12	HVAC CNTRL	Re...	200 VA	
	900 VA	M	Auto Roll-up Door	12	20 A	3	4	20 A	12	R CENTRAL PLANT 155	R	1080 VA	
	900 VA	M	Auto Roll-up Door	12	20 A	5	6	20 A	12	RECEPTS/WP RECEPT CNTRL...	R	1080 VA	
	540 VA	R	R CENTRAL PLANT 155	12	20 A	7	8	20 A	12	IRRIGATION CONTROLLER	R	400 VA	
--	--	--	SPARE	--	20 A	9	10	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	11	12	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	13	14	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	15	16	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	17	18	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	19	20	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	21	22	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	23	24	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	25	26	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	27	28	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	29	30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31	32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33	34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35	36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37	38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39	40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41	42	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	3100 VA	100.00%	3100 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	2700 VA	100.00%	2700 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

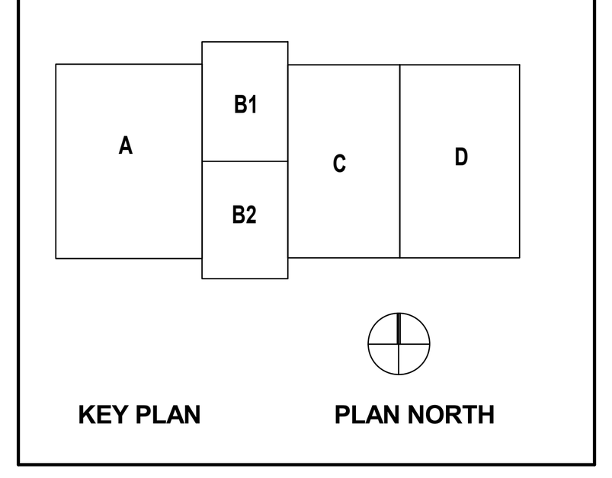
Total Connected Load: 6000 VA VA = 17 A
Total Load (Diversified): 6000 VA VA = 17 A
Location of Panel: CENTRAL PLANT 155

PBK

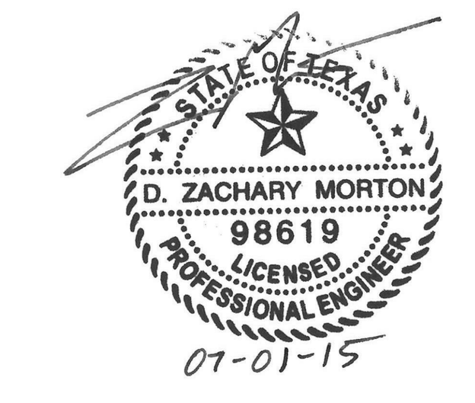
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0608 P
713-961-4571 F
TX Firm: F-3709
PBK.com

PHASE II

Texas State Technical College
Industrial Technology Center
26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN · PLAN NORTH



CLIENT: Texas State Technical College
PROJECT NUMBER: 14255
DATE: June 10, 2015
DRAWN BY: DBR
CHECKED BY: DBR

REVISIONS

No.	Description	Date
1	Addendum 1	06.19.2015
2	Addendum 2	07.01.2015

100% Construction Documents

PANEL SCHEDULES

JONES DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston, TX 78042
713.914.4333 p
713.914.9260 f
TBPE Firm Registration N0. 13002
JONES DBR Project Number 156003.000

ZM	JC	KD/DC	CF/MG	MC/JL

E-503

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7/2/2015 8:05:58 AM

Panelboard AHAC2

35000 AIC Rating — X New — Existing

480/277 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MLO — 0 A MCB — 400 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	5728 VA	H	FPT-2.16, FPT-2.17	10	30 A	1 2						
	5728 VA	H	FPT-2.14, FPT-2.15	10	30 A	3 4	50 A	8	FPT-2.1, FPT-2.2, FPT-2.3, FPT-2.18	H	27080 VA	
--	--	--	SPARE	--	20 A	5 6						
	28696 VA	H	FPT-2.13, FPT-2.12, FPT-2.4	8	50 A	7 8 9 10 11 12	50 A	8	FPT-2.5, FPT-2.11	H	23832 VA	
	25312 VA	H	FPT-2.09, FPT-2.10	8	50 A	13 14 15 16 17 18	50 A	8	FPT-2.6,FPT-2.7,FPT-2.8	H	28696 VA	
	6315 VA	F	AHU-A1.2 (5HP)	12	15 A	19 20 21 22 23 24	15 A	12	AHU-A1.1 (5HP)	F	6316 VA	
	48300 VA	H	AHU-A1.2 HEATER	4	80 A	25 26 27 28 29 30	50 A	8	AHU-A1.1 HEATER	H	29000 VA	
	6315 VA	F	OAHU-A1 (SUPPLY - 5HP)	12	15 A	31 32 33 34 35 36	40 A	8	OAHU-A1 (PRE-HEAT)	H	22000 VA	
	2825 VA	F	OAHU-A1 (EXHAUST - 2HP)	12	15 A	37 38 39 40 41 42	50 A	8	OAHU-A1 (HEAT)	H	33000 VA	
--	--	--	SPACE	--	--	43 44	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	45 46	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	47 48	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	49 50	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	51 52	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	53 54	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	55 56	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	57 58	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	59 60	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating	277372 VA	100.00%	277372 VA		(WH)Wat. Htr.			
220.60	(F)Fans	21771 VA	100.00%	21771 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 299143 VA VA = 360 A
Total Load (Diversified): 299143 VA VA = 360 A

Location of Panel: ELEC. ROOM 227

Panelboard AL2

10000 AIC Rating — X New — Existing

120/208 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MLO — 0 A MCB — 225 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	540 VA	R	RECEPTACLE ELEC. ROOM 219	12	20 A	1 2	20 A	12	RECEPTACLES AREA B1 LVL 2	R	720 VA	
	1500 VA	R	VENDING MACHINE	12	20 A	3 4	20 A	12	VENDING MACHINE	R	1500 VA	
	1080 VA	R	RECEPTACLES AREA B1 LVL 2	12	20 A	5 6	20 A	12	RECEPTS CONF. ROOM B1 LVL 2	R	1080 VA	
	1000 VA	K	BREAKROOM 221 - D/W	12	20 A	7 8	20 A	12	RESTROOM GFI, EDF, JAN	R	940 VA	
	1200 VA	K	BREAK ROOM 221 - REFR	12	20 A	9 10	20 A	12	RECEPTACLES	R	1080 VA	
	900 VA	R	R CYSCO LAB 210	12	20 A	11 12	20 A	12	R CYSCO LAB 210	R	1260 VA	
	540 VA	R	R NETWORK SECURITY LAB 208	12	20 A	13 14	20 A	12	R NETWORK SECURITY LAB 208	R	900 VA	
	1176 VA	F	EF-B1.1	12	20 A	15 16	20 A	12	EF-B2.1	F	1176 VA	
	1260 VA	R	OPEN OFF. MOD. FURN.	12	20 A	17 18	20 A	12	RECEPT'S CONF. RM	R	900 VA	
	720 VA	R	OFFICE	12	20 A	19 20	20 A	12	R BREAK ROOM 816 - COFFEE	K	1000 VA	
	900 VA	R	R BREAK ROOM 816	12	20 A	21 22	20 A	12	R BREAK ROOM 816 - M/W	K	1000 VA	
	1080 VA	R	R BREAK ROOM 816	12	20 A	23 24	20 A	12	R BREAK ROOM 816 - APPL	R	1000 VA	
	900 VA	R	R NETWORK SECURITY...	12	20 A	25 26	20 A	12	R NETWORK SECURITY...	R	720 VA	
	900 VA	R	R DIRECTOR OFFICE 604	12	20 A	27 28	20 A	12	R RECEPTION 602	R	900 VA	
	720 VA	R	R DIGITAL FORENSICS LAB 209	12	20 A	29 30	20 A	12	R DIGITAL FORENSICS LAB 704	R	720 VA	
	900 VA	R	R Room 708, 512	12	20 A	31 32	20 A	12	R CORRIDOR AREA B LVL 2	R	1080 VA	
	900 VA	R	R NETWORKING & SYSTEM...	12	20 A	33 34	20 A	12	R NETWORKING & SYSTEM...	R	720 VA	
	900 VA	R	R NETWORKING & SYSTEM...	12	20 A	35 36	20 A	12	R NETWORKING & SYSTEM...	R	720 VA	
	1260 VA	R	R NETWORK...	12	20 A	37 38	20 A	12	RECEPTS CORRIDOR LVL 2 B	R	900 VA	
	900 VA	R	OPEN OFF. MOD. FURN.	12	20 A	39 40	20 A	12	OPEN OFF. MOD. FURN.	R	1440 VA	
	2500 VA	WH	IEWH 228 BREAK ROOM	12	20 A	41 42	20 A	12	R Room 608, 606	R	1260 VA	
--	--	--	SPACE	--	--	43 44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45 46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47 48	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	49 50	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	51 52	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	53 54	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	55 56	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	57 58	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	59 60	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	33740 VA	64.82%	21870 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen	4200 VA	80.00%	3360 VA		(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.	2500 VA	100.00%	2500 VA
220.60	(F)Fans	2352 VA	100.00%	2352 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 42792 VA VA = 119 A
Total Load (Diversified): 30082 VA VA = 83 A

Location of Panel: ELEC. ROOM 227

Panelboard CB2

10000 AIC Rating — X New — Existing

120/208 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MLO — 0 A MCB — 225 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	1500 VA	R	COPIER - RM 810	12	20 A	1 2	20 A	12	COPIER - RECEPTION 602	R	1500 VA	
	1500 VA	R	COPIER RM 800	12	20 A	3 4	20 A	12	COPIER - RECEPTION 602	R	1500 VA	
	1080 VA	R	COMPUTERS DIGITAL...	12	20 A	5 6	20 A	12	COPIER - RM 702	R	1500 VA	
	1500 VA	R	COPIER - OPEN OFFICE RM 830	12	20 A	7 8	20 A	12	CONF. RM.	Ot..	1260 VA	
	1920 VA	Re...	MODULAR FURN. RM 830	12	20 A	9 10	20 A	12	RECEPT'S OFFICES	R	1080 VA	
	1500 VA	R	COPIER - OPEN OFFICE RM 834	12	20 A	11 12	20 A	12	R CONFERENCE ROOM 818	R	1080 VA	
	1600 VA	Re...	MOD. FURN. - OPEN OFF. 834	12	20 A	13 14	20 A	12	COMPUTERS RM 208,206	R	720 VA	
	1000 VA	Re...	MOD. FURN. - OPEN OFF. 834	12	20 A	15 16	20 A	12	COMPUTERS RM 210	R	720 VA	
	720 VA	R	COMPUTERS RM 210	12	20 A	17 18	20 A	12	COMPUTERS RM 604, 602	R	720 VA	
	1500 VA	R	COPIER RM 216	12	20 A	19 20	20 A	12	COMPUTERS RM 216	R	900 VA	
	540 VA	R	COMPUTERS CYSCO LAB 210	12	20 A	21 22	20 A	12	COMPUTERS CYSCO LAB	R	1080 VA	
	720 VA	R	COMPUTERS CYSCO LAB	12	20 A	23 24	20 A	12	COMPUTERS CYSCO LAB 210	R	1080 VA	
	720 VA	R	COMPUTERS CYSCO LAB 210	12	20 A	25 26	20 A	12	PC NETWORK SECURITY LAB...	R	720 VA	
	1080 VA	R	PC NETWORK SECURITY LAB...	12	20 A	27 28	20 A	12	PC NETWORK SECURITY LAB...	R	720 VA	
	1080 VA	R	PC NETWORK SECURITY LAB...	12	20 A	29 30	20 A	12	PC NETWORKING & SYSTEM...	R	900 VA	
	1080 VA	R	PC NETWORKING & SYSTEM...	12	20 A	31 32	20 A	12	PC NETWORKING & SYSTEM...	R	1260 VA	
	1080 VA	R	PC NETWORKING & SYSTEM...	12	20 A	33 34	20 A	12	PC NETWORK...	R	720 VA	
	720 VA	R	PC NETWORK...	12	20 A	35 36	20 A	12	PC NETWORK...	R	720 VA	
	720 VA	R	PC NETWORK...	12	20 A	37 38	20 A	12	IDF - UPS (NEMA L6-20R)	M	2288 VA	
	2288 VA	M	MDF - UPS (NEMA L6-20R)	12	20 A	39 40 41 42	20 A	12	IDF - SECURITY RECEPT'S	R	360 VA	
	400 VA	Re...	HVAC Controls MECH. RM. 248	12	20 A	43 44	20 A	12	OFFICE COMPUTERS 238	R	720 VA	
--	--	--	SPARE	--	20 A	45 46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47 48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49 50	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	51 52	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	53 54	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	55 56	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	57 58	20 A	--	SPARE	--	--	--
--	--	--	SPACE	--	--	59 60	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	36860 VA	63.56%	23430 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	4576 VA	100.00%	4576 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 45796 VA VA = 127 A
Total Load (Diversified): 32366 VA VA = 90 A

Location of Panel: ELEC. ROOM 227

Panelboard AHAC3

35000 AIC Rating — X New — Existing

480/277 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MLO — 0 A MCB — 600 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	11634 VA	F	EF-W1 (10 HP)	10	25 A	1 2 3 4 5 6	25 A	10	EF-W2 (10 HP)	F	11634 VA	
	11634 VA	F	EF-W3 (10 HP)	10	25 A	7 8 9 10 11 12	25 A	10	EF-W4 (10 HP)	F	11634 VA	
	22437 VA	F	AHU-B1.1 (20HP)	6	60 A	13 14 15 16 17 18	70 A	4	AHU-B2.1 (25HP)	F	28254 VA	
	9141 VA	F	AHU-C1.1 (7.5HP)	12	20 A	19 20 21 22 23 24	15 A	12	AHU-C1.2 (5HP)	F	6315 VA	
	51400 VA	H	AHU-C1.1 (HEATER)	4	80 A	25 26 27 28 29 30	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	31 32	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	33 34	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	35 36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37 38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39 40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41 42	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	43 44						
--	--	--	SPACE	--	--	45 46	125 A	1	AHU-C1.2 (HEATER)	H	80700 VA	
--	--	--	SPACE	--	--	47 48						
	105000 VA	H	AHU-B1.1 (HEATER)	2/0	175 A	49 50 51 52 53 54	150 A	1/0	AHU-B2.1 (HEATER)	H	100000 VA	

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle				210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating	337100 VA	100.00%	337100 VA		(WH)Wat. Htr.			
220.60	(F)Fans	112683 VA	100.00%	112683 VA	220.5	(MT)Lrg. Motor			
	(M)Misc.					(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 449783 VA VA = 541 A
Total Load (Diversified): 449783 VA VA = 541 A

Location of Panel: EQUIPMENT PLATFORM 250

Panelboard CNC

10000 AIC Rating — X New — Existing

120/208 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MCB — 500 A MCB — 600 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	19855 VA	R	100A BUSWAY VERTICAL MILL	3	100 A	1 2 3 4 5 6	100 A	3	100A BUSWAY VERTICAL MILL	R	19855 VA	
	36100 VA	R	250A BUSWAY LATHE	250	250 A	7 8 9 10 11 12	250 A	250	250A BUSWAY LATHE	R	36100 VA	
	1078 VA	R	BAND SAW	12	20 A	13 14 15 16	20 A	12	BAND SAW	M	1078 VA	
	1078 VA	M	BAND SAW	12	20 A	17 18 19 20	20 A	12	BAND SAW	M	1078 VA	
	1500 VA	R	GRIND	12	20 A	21 22	20 A	12	HARD TEST	R	1500 VA	
	1500 VA	R	IMPACT TEST	12	20 A	23 24	20 A	12	POLISH	R	1500 VA	
	1500 VA	R	GRIND	12	20 A	25 26	20 A	12	GRIND	R	1500 VA	
	1500 VA	R	GRIND	12	20 A	27 28	20 A	12	GRIND	R	1500 VA	
	1500 VA	R	TENSILE TEST	12	20 A	29 30	20 A	12	DRILL PRESS	R	1656 VA	
	1656 VA	R	DRILL PRESS	12	20 A	31 32	20 A	12	GRIND	R	1500 VA	
	2300 VA	R	11. BS Belt Sander	10	30 A	33 34	20 A	12	GRIND METALLURGY LAB	R	1500 VA	
	1500 VA	R	GRIND METTALURGY LAB	12	20 A	35 36	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	37 38	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	39 40	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	41 42	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	43 44	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	45 46	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	47 48	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	49 50	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	51 52	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	53 54	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	55 56	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	57 58	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	59 60	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	61 62	20 A	--	SPARE	--	--	--
--	--	--	SPARE	--	20 A	63 64	20 A	--	SPARE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	136600 VA	53.66%	73300 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	3234 VA	100.00%	3234 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 139834 VA VA = 388 A
Total Load (Diversified): 76534 VA VA = 212 A

Location of Panel: EQUIPMENT PLATFORM 250

Panelboard CNC2

10000 AIC Rating — X New — Existing

120/208 Wye Volt, 3 Phase, 4 Wire — 1 Section — Type 1 -Nema Rating — Mains Type: MCB — 500 A MCB — 600 A BUS (Copper) — - — X Single — Double — Feed - Thru — Mounting — X Surface — Flush

NOTE	Load (VA)	Type	Description	Wire	CB	CKT	CB	Wire	Description	Type	Load (VA)	NOTE
	28000 VA	R	250A BUSWAY CNC MILL MM1	250	250 A	1 2 3 4 5 6	400 A	600	400A BUSWAY MILL MV2/TL1	R	74900 VA	
	67200 VA	R	200A BUSWAY LATHE HL1	250	250 A	7 8 9 10 11 12	70 A	4	HEAT TREAT OVEN HO	M	18000 VA	
--	--	--	SPACE	--	--	13 14	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	15 16	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	17 18	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	19 20	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	21 22	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	23 24	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	25 26	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	27 28	--	--	SPACE	--	--	--
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--	--	--	SPACE	--	--	35 36	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	37 38	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	39 40	--	--	SPACE	--	--	--
--	--	--	SPACE	--	--	41 42	--	--	SPACE	--	--	--

N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2014)	Load Type	Conn.	Fct.	Diversity
220.44	(R)Receptacle	170100 VA	52.94%	90050 VA	210.20(a)	(L)Lighting			
220.56	(K)Kitchen					(EL)Ext. Ltg.			
220.60	(C)Cooling			0 VA	620.14	(E)Elevators			
220.60	(H)Heating			0 VA		(WH)Wat. Htr.			
220.60	(F)Fans				220.5	(MT)Lrg. Motor			
	(M)Misc.	18000 VA	100.00%	18000 VA		(SP)Sub Pnl.			
630.00	(W)Welder								

Total Connected Load: 188100 VA VA = 522 A
Total Load (Diversified): 108050 VA VA = 300 A

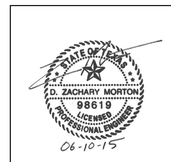
Location of Panel: EQUIPMENT PLATFORM 250

PBK
11 Greenway Plaza, 22nd Floor
Houston, TX 77046
713-965-0808 P
713-961-4571 F
TX Firm: F-3709
PBK.com

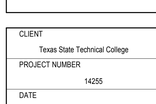
PHASE II

Texas State Technical College Industrial Technology Center

26706 Southwest Freeway
Rosenberg, TX 77471



KEY PLAN — PLAN NORTH



CLIENT: Texas State Technical College
PROJECT NUMBER: 14255
DATE: June 10, 2015
DRAWN BY: DBR
CHECKED BY: DBR
REVISIONS

No.	Description	Date

100% Construction Documents

PANEL SCHEDULES

E504

JONES*DBR
STATE OF TEXAS HUB FIRM
9990 Richmond Avenue
South Building, Suite 310
Houston, TX 77042
713.914.4320 p
713.914.9298 f
TBPE Firm Registration No. 13002

JONES*DBR Project Number 156003.000

ZM	JC	KD/DC	CF/MG	MC/JL

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