

#### **IV. CONSTRUCT CANOPY STRUCTURES: PHYSICAL TRAINING (PT) & MILITARY WORKING DOG (MWD)**

##### **STATEMENT OF WORK**

Part 1 – Scope of Work

Part 2 – Products

Part 3 – Execution

Part 4 – Utility Outages and Special Conditions

Part 5 – Environmental Requirements

Part 6 – Site Maintenance and Cleanup

Part 7 – Energy Conservation

Part 8 – Responsibility

Part 9 – Storage and Parking

Part 10 – Completion of Work

Part II. - Technical Exhibits:

11a. Geotechnical Report – Proposed Shade Structure Beaver Fit Locker

11b. Geotechnical Report – Proposed Goodfellow Air Force Base Dog Training Area

11c. Drawings:

11.d Forms

AF Form 66

##### **PART 1.0 – SCOPE OF WORK [SOW]:**

**1.1 GENERAL:** The work to be performed under this contract and in accordance with this Statement of Work and Drawings shall consist of furnishing all necessary parts, labor, tools, transportation, supplies, supervision, equipment, materials, and incidentals necessary for providing all work shown on the Statement of Work, Drawings (Technical Exhibits), and in accordance with the latest edition of all applicable codes, regulations, standards and criteria in effect at the date of solicitation. The work outlined herein shall consist of, but not be limited to the construction of a new canopy structures at Goodfellow AFB PT Training Area and at the MWD Training Area.

**1.2 AGENCY RELATIONSHIP:** Tom Green County (TGC) has sole contract authority. 17th Civil Engineer Squadron (17 CES) Goodfellow AFB shall serve in the role of providing contract coordination/monitoring but shall not have any direct contract authority to approve or disapprove construction work. All contract correspondence shall be directly submitted to TGC contract representative.

**1.3 LOCATION:** Goodfellow Air Force Base is located in Tom Green County, on the southeast side of San Angelo, TX. and is bounded to the north by Highway #388 (Paint Rock Rd.), to the west by Fort McKavitt Rd and Bell Street/Christoval Road, to the south by Highway #1223 (San Antonio Hwy.) and to the east by the eastern city limits. Work locations are PT training area and MWD training area as described on the plans.

**1.4 PROJECT DESCRIPTION:** The Contractor shall construct a Physical Training [PT] Canopy Base Bid, or Bid Alternate and/or a Military Working Dog [MWD] Canopy as described in this Statement Of Work and the Drawings. The PT canopy shall include a synthetic running surface for the Base Bid and a synthetic basketball surface for the Bid Option. Both the Base Bid and the Bid Option shall be provided with lighting/electricity and site work, plus the dis-assembly, storage and re-assembly of the existing Alpha Warrior fitness unit. The canopy for the MWD shall include synthetic pet turf, with lighting/electricity and site work to include a fenced area with concrete slab for bleachers as part of the bid Option. If any departure from the SOW shall be deemed necessary by the Contractor, details of such departures and the reasons therefore shall be submitted as soon as possible to the Contracting Officer, or designated representative for action. No such departures shall be made without prior approval of the Contracting Officer, or designated representative.

**1.5 SITE VISITS:** The Contractor shall visit the site to become thoroughly familiar with details of the work and working conditions, verify dimensions in the field, and shall advise the Contracting Officer of any discrepancies before starting the work.

**1.6 WORK AND MECHANICS:** The work for this project shall be executed in the best and most workmanlike manner, by qualified and efficient mechanics/tradesmen, skilled in their respective trades. Only certified journeymen in each respective trade, or apprentices under the direct supervision of certified journeymen, shall be permitted to install and/or supervise installation for this project. Individual trade work for this project shall be performed and quality maintained by the applicable trade, only. All trades shall coordinate their work with that of other trades. The Contractor shall coordinate and perform all operations in a manner that shall result in a professional and expeditiously completed project. The Contractor shall provide items of work not specifically indicated, but obviously and/or normally required to complete and properly execute the work. The work shall be in strict accordance with prevailing industry standards and manufacturer's instructions. Work and materials shall comply with this Statement of Work, the Drawings and the editions in effect at the time of this solicitation for all applicable codes, criteria, regulations and guidelines, all of which shall be made a part of this SOW.

**1.6.1 PROJECT SUPERINTENDENT/ALTERNATE:** Project Superintendent shall have five years general construction experience, minimum; shall be a high school graduate or GED equivalent, minimum and having held the same position on 3 prior like projects of equal or greater complexity and construction costs, minimum. The Superintendent and/or the Alternate shall be available five [5] work days per week, eight [8] hours per work day. The Superintendent's approved alternate shall meet the same criteria as the superintendent, shall be present and able to respond on the Superintendent's behalf when the Superintendent is not available.

**1.6.2 TESTING LABORATORY:** The Contractor shall employ and pay for services of an independent testing laboratory to perform specified services and testing. The testing laboratory shall meet "Recommended Requirements for Independent Laboratory Qualifications" published by the American Council of Independent Laboratories, meet basic requirements of ASTM E-329 and shall be currently licensed to operate in the State of Texas.

1.6.2.1 Specific tests and inspections shall be as indicated in this SOW and the drawings.

**1.6.3 GEOTECHNICAL ENGINEER:** Provide the services of an independent Geotechnical Engineer to monitor the earthwork and perform specified testing of the earthwork.

1.6.3.1 Specific testing shall be as follows:

1.6.3.1.1 A minimum of at least one laboratory test for moisture-density relationship of the subgrade material in accordance with Texas Hwy Dept. test procedure TEX 113E.

1.6.3.1.2 A minimum of at least one laboratory test for moisture-density relationship of the select fill per Texas Hwy Dept. test procedure TEX 113E.

1.6.3.1.3 A minimum of one field density test each 2000 SF for subgrade below Canopy Structure for "Density Control of Compaction" in accordance with latest ASTM D-2922 and ASTM D-3017.

1.6.3.1.4 A minimum of one field density test each 2000 SF for select fill below Canopy Structure for "Density Control of Compaction" in accordance with latest ASTM D-2922 and ASTM D-3017.

1.6.3.1.5 A minimum of one field density test per lift each 200 LF of select fill within trenches for "Density Control of Compaction" in accordance with latest ASTM D-2922 and ASTM D-3017.

1.6.3.1.6 Any other tests specifically required by other sections, herein.

**1.6.4 MANAGEMENT PLAN:** The Contractor shall submit a Management Work Plan that fully describes the means to perform all work including but not limited to providing all equipment, tools, materials, supplies, transportation, supervision, management,

proposed project schedules, work sequence plans, associated configurations for all demolition and new work including electrical, mechanical and communications infrastructure as described in this SOW and Drawings.

**1.6.5 TRAFFIC PLAN:** The Contractor shall submit a traffic and pedestrian plan showing pedestrian and traffic flow altered by construction/demolition and proposed alternate routing within 7 calendar days after Notice to Proceed [NTP] for approval by TGC. TGC must approve this management plan before the Contractor can commence any construction/demolition work.

**1.6.6 FIRST WORK:** The first work performed by the Contractor after the work area is vacated and prior to starting demolition/construction operations shall be to fence in and secure the Lay-Down area in accordance with Contractor's staging plan. The fence shall be maintained at all times during demolition/construction and only be removed, with the Contracting Officer's approval, at the conclusion of demolition/construction operations. Lay-Down Site shall be approved based on review of Contractor's proposed location. This fence shall be installed in accordance with 1.19 and 2.16, herein and the drawings.

**1.6.7 STORAGE AREAS:** There are no Goodfellow AFB furnished, covered or secure storage areas. Contractor's field office[s] and lay-down area[s] shall be at location[s] indicated on the drawings. Limited storage shall be permitted at the discretion of TGC and on a space-available basis. If the Contractor requires additional temporary field office, storage, and other construction buildings that are temporarily required in the performance of the work, the additional space shall require the written approval of the Contracting Officer. Plans showing temporary field office, Contractor and Contractor worker parking, storage, and other construction buildings shall be submitted by the Contractor for Government Approval (GA). Utilities at the PT and MWD areas shall be available for Contractor use. Coordinate utility connections with the Government. Utility connection shall be the responsibility of the Contractor. Goodfellow AFB assumes no responsibility for lost or stolen materials, equipment, or tools, the security of which lies solely with the Contractor. Contractor shall keep their storage areas clean, neat, and orderly. Contractor shall mow grass and weedy vegetation when it reaches a height of 6 inches, maximum. Mowing shall be to a height of 3 inches. Mowing shall be accomplished with a rotary mower that leaves the clippings evenly distributed on the soil surface.

Mowing shall be accomplished during periods and in a manner that the soil and grass shall not be damaged. Towed or self-propelled riding mowers shall not be operated within 3 feet of shrubs or trees. Contractor shall mow areas adjacent to shrubs and trees with hand propelled mowers. Temporary fencing used by the Contractor to delineate construction sites shall be securely anchored with tension wires and posts as required to prevent sagging and an unsightly appearance. Fencing shall be maintained by the Contractor in this manner throughout the duration of the contract. Due to high winds in west Texas, Contractor shall take every precaution to preclude trash and materials from blowing off site.



**1.6.8 SITE USAGE:** During the entire duration of this contract, Goodfellow AFB shall continue to use B140 and the PT Pad at the PT Canopy area plus B3329, B3340 and B3341 at the Canopy MWD area. Also, all adjacent facilities shall remain occupied and have (day-to-day) mission essential work. At all times, the Contractor shall exercise care to reduce noise and ensure safe construction activities while minimizing disturbances. The Contractor shall coordinate the work performance whereby both the Government and the Contractor shall continue operations with the least possible interference and inconvenience. The Contractor shall conduct all work such that means of facility ingress and egress fire response routes, etc., are open and maintained at all times. The Contractor shall be responsible for providing suitable, approved temporary barricades, roped barriers, warning tape etc., to warn occupants of hazardous areas at the job site for the entire duration of the contract at no additional cost to the Government. Under no circumstances shall the Contractor block road/rear access to the nearby facilities including Base Gymnasium B140, Security Forces Squadron Facilities B3329, B3340 & B3341.

**1.6.9 OUTAGES:** The Contractor, shall submit to 17 CES written notification regarding any and all utility outages 14 calendar days in advance of proposed outage. All water, power or communication outages must be scheduled for weekends only.

**1.6.10 CLEANING AND PROTECTION:**

**1.6.10.1** All construction debris, trash, dirt, etc. shall be immediately removed, at a minimum daily and as required, at the Contractor's expense in accordance with all local, state and federal environmental laws and regulations.

**1.6.10.2** All areas shall be cleaned on a daily basis, minimum and as required to maintain a professional appearance at all times.

**1.6.11** The Contractor shall collect any and all trash, debris, refuse, garbage, etc., that is generated and place it in appropriate containers with lids or approved covers on a periodic basis or as directed by the Contracting Officer's representative. The aforementioned material shall be hauled from the site by appropriate means on a daily basis, unless otherwise approved by the Contracting Officer's representative. Disposal shall be outside the limits of Government property. Disposal shall be by sanitary landfill or other approved methods and shall conform to all local, state and Federal guidelines, criteria and regulations. Upon completion of the work, the Contractor shall leave the work site and storage area[s] in a clean, neat and workmanlike condition satisfactory to the Contracting Officer. Restoration to the original contours is required unless otherwise directed by this SOW, the Drawings, or by the Contracting Officer.

**1.7 PERFORMANCE PERIOD:** The Contractor shall have one hundred and twenty [120] calendar days to complete the MWD canopy; one hundred and eighty calendar days [180] to complete PT canopy – Base Bid. If the Bid Option for the PT Canopy is selected, the Contractor shall have two hundred and ten calendar days [210] to

complete that work. It is proposed that work for the PT canopy [Base Bid or Bid Option] and MWD Canopy be performed concurrently.

**1.8 WORK SCHEDULE:** Workdays shall be from 0730 to 1630, Monday thru Friday; no weekend work allowed unless approved by the Contracting Officer [Ref: 1.33].

**1.9 WORK AREA ACCESS:** Government escorts are not needed. The lowest level of security exists in general access areas and also applies to the PT and MWD areas.

**1.10 CONCRETE TRUCKS:** Cleaning out of concrete trucks on Goodfellow AFB is prohibited. Concrete truck chutes, only, may be rinsed at the construction site. Wastewater and concrete from this rinse shall be collected in a high-density polyethylene (HDPE) plastic-lined box or pit provided by the Contractor at the site. At the end of pouring operations, the Contractor shall excavate all the waste and liner and properly dispose of same. The Contractor shall dispose of all concrete debris to an authorized off base site and shall remove any and all concrete debris and residue at the end of the project at no additional cost to the Government. The pit shall be completely backfilled and the site restored to original conditions.

**1.11 REFERENCES:** All publications listed herein shall be the most current editions in effect at the time of solicitation and form a part of this Statement of Work. The publications are referred to in the text by basic designation only and include the following:

GAFB INSTRUCTION

GAFBI 32-2001 Goodfellow AFB Base Fire Protection Program GAFBI  
31-102 Installation Security Instruction

INTERNATIONAL BUILDING CODE [IBC]

INTERNATIONAL FIRE CODE [IFC]

INTERNATIONAL ENERGY CONSERVATION CODE

NATIONAL ELECTRIC CODE [NEC]

US ARMY CORPS OF ENGINEERS HEALTH AND SAFETY MANUAL EM 385-1-1

OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)

OSHA STD 29 CFR 1910 and 1926

OSHA STD 29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements)

AMERICAN CONCRETE INSTITUTE [ACI]

RFP 21-005: GAFB DEAAG CONSTRUCTION - CANOPY STRUCTURES & PT FIELD  
PHYSICAL TRAINING & MILITARY WORKING DOG

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES [ACIL]

AMERICAN INSTITUTE OF STEEL CONSTRUCTION [AISC]

AMERICAN IRON AND STEEL INSTITUTE [AISI]

AMERICAN SOCIETY FOR TESTING AND MATERIALS [ASTM]

AMERICAN SOCIETY OF CIVIL ENGINEERS [ASCE]

AMERICAN WELDING SOCIETY [AWS]

METAL BUILDING MANUFACTURES ASSOCIATION [MBMA]

MASTER PAINTER'S INSTITUTE [MPI]

SMACNA-02

Architectural Sheet Metal Manual

STEEL STRUCTURE PAINTING CODE [SSPC]

TEXAS DEPARTMENT OF TRANSPORTATION [TxDoT]

UNDERWRITERS LABORATORY [UL]

UL 580, Class90 Tests for Uplift Resistance of Roof Assemblies

**1.13 SUBMITTALS:** The Contractor shall provide submittals in the form of Manufacturer's Catalog Data, Certificates of Compliance and Samples for all items listed on the attached AF Form 66. The Contractor shall not be permitted to perform any work on site without approved submittals. The submittals listed on the attached AF Form 66 shall be required and shall be submitted for Government Approved (GA) or For Information Only (FIO). Use AF Form 3000 to process submittals. Submit four copies of submittals to Contracting Officer. Execute DD Form 1354 Checklist and submit to Contracting Officer before final payment is issued.

**1.14 MANUFACTURER'S CATALOG DATA:** Data composed of catalog cuts, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the contract documents.

**1.15 SAMPLES:** The Contractor shall submit actual nominally sized samples of the roof panels: R-Panels, and U-Panels; gutter and downspout, synthetic surface, synthetic turf, synthetic basketball surface, roof deck and paint color samples for

approval. The Contractor shall submit a sample in each color of the product. No products or materials shall be installed until respective submittals have been approved.

**1.16 CONTRACTOR'S WARRANTY:** The Contractor shall warrant all equipment, materials and workmanship for a period of one [1] year after project completion. Any manufacturer and/or specified warranty that is for a period longer than the one [1] year Contractor warranty shall be so warranted. At a date one month prior to termination of the one [1] warranty, the Contractor and the Government shall review all installed equipment, materials and workmanship and the Contractor shall make repairs and/or replacements of defective warranty items.

**1.17 MANUFACTURERS WARRANTIES:** The Contractor shall identify all items being installed that are covered by a manufacturers guarantee or warranty and provide validated copies of such. The identification shall list the Government as holder of said warranties, the name of the company and the commencement and expiration date of the guarantee or warranty.

**1.18 DELIVERY AND STORAGE:** All equipment and materials delivered and placed in storage shall be stored with protection from the weather, humidity and temperature variation, dirt and dust, and any other contaminants and per the manufacturer's recommendations. Store all materials in a secure, clean and dry locations.

**1.19 SAFETY:** All Contractor operations shall be conducted and performed in accordance with Department of Labor, OSHA requirements found in 29 CFR 1910 (1910.146 and 1910.147) and 29 CFR 1926, and Air Force Occupational Safety & Health (AFOSH) standards including AFI 91-203, Air Force Consolidated Occupational Safety Instruction. The Contractor shall also ensure that all work is performed in accordance with project identified national standards, military manuals, instructions, pamphlets, standards, and handbooks, and with the edition in effect on the date of this solicitation of the Corps of Engineers (COE) Safety Manual 385-1-1. All job sites are subject to inspections by the Department of Labor. In the event of conflicts between the OSHA standards and these requirements, the most stringent shall apply.

**1.19.1** Resolution of Department of Labor citations for violations of Occupational Safety and Health Standards shall be a Contractor responsibility and shall provide for no basis of a claim against the Government.

**1.20 TEMPORARY FENCE:** Prior to the start of any work for this project, the Contractor shall provide temporary orange warning fencing around the site perimeter.

**1.21 FIELD OFFICE:** The Contractor shall maintain a clean, secure, weather-tight, temporary portable field office placed at the project sites with all required services during the duration of the project.

**1.22 PORTABLE TOILETS:** For the duration of this project, the Contractor shall provide and properly maintain portable toilet[s] for the use of the workers.

**1.23 CONSTRUCTION DOCUMENTS:** The Contractor shall maintain a complete, current set of the construction documents and daily project log[s] in the field office at all times.

**1.24 OPERATIONS SECURITY (OPSEC) REQUIREMENTS:** The purpose of OPSEC is to reduce the vulnerability of Air Force missions by eliminating or reducing successful adversary collection and exploitation of critical or sensitive information. OPSEC applies to all activities that prepare, sustain, or employ forces during all phases of operations. OPSEC is a process of identifying, analyzing and controlling critical and sensitive information indicating friendly actions associated with military operations and other activities to: 1) identify those actions that can be observed by adversary intelligence systems; 2) determine what specific indications could be collected, analyzed, and interpreted to derive critical or sensitive information in time to be useful to adversaries; 3) select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation. Organizations and personnel supporting the 17th Training Wing have OPSEC requirements associated with their activities and support. The Contractor shall comply with the 17th Training Wing OPSEC Program. During the construction contract pre-construction meeting further information shall be provided by the Government on the Goodfellow AFB OPSEC Program. The basis for the OPSEC program is AFI 10-701.

**1.25 SPECIFIC OPSEC REQUIREMENTS:**

1.25.1 Contractor personnel shall receive OPSEC Awareness Education and Duty-Related Training within 90 days of contract start date and annually thereafter.

1.25.2 OPSEC Awareness Education and Training shall be provided or coordinated through government channels.

1.25.3 The Contractor is susceptible to OPSEC assessments, surveys or any other evaluation tool available for the Wing OPSEC Program Manager or subordinate OPSEC Coordinator to use in order to gauge the effectiveness of the overall program.

**1.26 UTILITY CONSERVATION:** The Contractor shall be required to participate in government energy conservation programs. For the purpose of this contract, utilities such as water, electricity, etc., shall be furnished by the government at no cost to the Contractor. Long distance and Defense Switched Network (DSN) telephone services shall not be provided.

**1.27 WORK SCHEDULE:** Working hours for the Contractor shall normally be between the hours of 7:30 A.M. and 4:30 P.M. excluding Saturdays, Sundays, and Federal holidays. Refer to Section H of the solicitation/contract document for further information on working days. If the Contractor desires to work during periods other than above, a request must be made to the Contracting Officer in writing four (4) calendar days in advance of the Contractor's intention. If the required base personnel are reasonably

available, the Contracting Officer may authorize the Contractor to perform work during periods other than normal duty hours/days.

**1.28 NORMAL WORK HOURS:** The Contractor shall schedule all work to occur between the hours of 7:30 AM and 4:30 PM, Monday through Friday, except on the Federal holidays and days designated as “Family Days” by Air Education and Training Command (AETC) as listed below. Permission to work outside these normal business hours may be granted by the Contracting Officer. Requests to work outside the normal work hours must be submitted in writing to the Contracting Officer at least 3 working days in advance of the date requested. The Contractor shall provide written notification to the Contracting Officer fourteen (14) calendar days lead time for work schedule.

Federal Holiday		2020	2021
New Year's Day	01 Jan		
Martin Luther King's	3rd Monday in January		
President's Day	3rd Monday in February		
Memorial Day	Last Monday in May	25 May	24 May
Independence Day	4 Jul	05 Jul	05 Jul
Labor Day	1st Monday in	07 Sep	06 Sep
Columbus Day	2nd Monday in October		
Veterans Day	11 Nov		
Thanksgiving Day	4th Thursday in	26 Nov	25 Nov
Christmas Day	25 Dec		

1.28.1 While AETC Family Days have not been identified past calendar year 2018 it is anticipated that the same number of AETC Family days shall be declared each year.

1,28.2 Any Holiday falling on a Saturday shall be observed the preceding Friday. Any Holiday falling on a Sunday shall be observed the following Monday.

1.28.3 Goodfellow AFB could be closed because of security problems, adverse weather, or other events. Unless otherwise notified by the Government, the Contractor should monitor local television stations, radio stations, or Goodfellow's Facebook page for notification of a possible late opening or base closure. The Contractor may not receive any other form of notification of a base closure from the Government, unless contacted by the Contracting Officer (CO) or the COR. The Contractor is responsible for notifying Contractor employees. Contractor(s) do not report when the base is closed due to security problems and/or adverse weather.

**1.29 TOBACCO USE IN AETC FACILITIES:** Contractors are advised that the Commander has placed restrictions on the smoking of tobacco products within AETC facilities. AFI 40-102, Tobacco Use in the Air Force, outlines the procedures used by

the commander to control smoking in our facilities. Contractor employees and visitors are subject to the same restrictions as government personnel. Smoking is permitted only in designated smoking areas. Additional information, to include locations of designated smoking areas, shall be provided to the Contractor at the pre-performance conference.

**1.30 BASE ACCESS SECURITY REQUIREMENTS:** The Contractor shall comply at all times with base law enforcement and security requirements to include base pass requirements.

**1.30.1 Contractor Installation Access Pass.** Before arrival, a Government identification card-holding person from the sponsoring agency, Base Contracting office/administrator or applicable local project manager shall submit a request for base access using the 17 Training Wing's Base Access List (BAL) memorandum as a form of registration for each credential applicant. The base sponsor/sponsoring agency/Contracting Officer and the contracted management team should establish an accountability process to account for each applicant, to oversee the BAL process, and to retrieve installation passes when access is no longer required. Base sponsors/sponsoring agencies or contract officers shall ensure the BAL is accurate, that it is signed and forwarded to the 17 SFS Pass & Registration section for completion of the vetting and fitness determination processes. The BAL should be delivered to Pass & Registration, located at the Visitor Control Center (VCC). When delivery is not possible, the BAL may be forwarded to Pass & Registration via a ".mil" email account located on Goodfellow AFB. The BAL shall include pertinent visitor information, reason for entry, frequency of entry, destination, times each day requiring entry, and duration of request.

**1.30.2 Contractor Initial (and periodic) Installation Access Screening.** The Contractor shall provide Pass and Registration with two forms of identification, one of which shall be a state issued photo identification. Prior to being allowed access, a minimum of a background/National Crime Information Center (NCIC) check shall be completed on all Contractors, requesting unescorted access for official business. This screening process shall validate the Contractor's suitability to visit Goodfellow and certify that the Contractor does not pose an increased threat to the base populace. The Contractor shall then be issued a temporary Defense Biometric Identification System (DBIDS) pass or AF Form 75A through the expiration date on the BAL request. Possession of an authorized access pass does not automatically authorize or guarantee access to the installation. The individual must still have a valid purpose to be on the installation and properly sponsored, as applicable.

**1.30.3 Access Denial.** If it is determined that a Contractor requesting access has been convicted of a felony or pled guilty to a felony charge within the past 10 years, or is considered not fit to obtain authorized access based on the information obtained during the identity vetting, or criminal history indicates the individual may present a threat to the good order, discipline and morale of the installation, Security Forces personnel shall deny entry. The Contractor shall be informed of the access denial, shall

be issued an Access Denial Letter, and shall be informed on how they may appeal this order.

1.30.4 Access Denial Appeal Process. When denied access, contract visitors shall be informed to report back their manager. If the contract worker and management are considering an appeal, it shall be submitted by letter to the 17 SFS Commander, within 30 days of access denial. The contract manager should first contact the military contract officer/administrator or on-base sponsor for additional guidance and clarification. The appeal may be delivered to the installation Visitor Control Section or mailed to Security Forces, addressed to 17 SFS/CC, 361 Apache Trail, Goodfellow AFB, 76908. The Contractor's appeal should discuss all facts and reasons to support rescinding access denial. The 17 TRW/CC shall approve/disapprove all appeals for entry.

1.30.5 For installation access on non-duty hours or down days:

1.30.5.1 Identify which workers need access on weekends, federal holidays/family days, and down days, where required.

1.30.5.2 Ensure only workers that are already vetted are on the Extended-Hours request (no new personnel). New personnel require a new BAL and formal vetting.

1.30.5.3 Complete the "After Hours" BAL for workers requiring down day access to the installation.

1.30.5.4 Identify the vehicle requirements. If operations cannot support the search procedures for large vehicles/special purpose equipment, the request may be declined unless arrangements are made to deliver the vehicle/equipment prior, during normal duty hours.

1.30.5.5 During the above-mentioned days, the Contract officering, contract representative sponsoring ID cardholder is required to be present during hours of the work request.

1.30.6 All BALs are accomplished each time employees or personnel change, not to exceed 180 days. Oversight for BAL updates and establishment of procedures to ensure Physical Access Control System (PACS) credentials and locally created access credentials from individuals who no longer require installation access is the responsibility of the contracting officer/contract administrator. When an employee (regardless of position) is no longer employed by the Contractor or Sub-Contractor all DBIDS passes shall be to be returned to the Contract Officer/Administrator or to the Visitor Control Center. If a local issued access credential/pass is not returned, the contract officer may withhold funds or the Installation Commander may consider permanent debarment to the installation. Immediate access denial may be initiated by Pass & Registration updating the DBIDS database until disposition of the DBIDS pass is resolved.



## **PART 2.0 – PRODUCTS:**

### **2.1 REFERENCES TO MATERIALS, MANUFACTURERS AND PRODUCTS:**

Materials shall be the standard product of manufacturer's regularly engaged in the manufacture of such products. All products, devices, equipment and materials shall be new and of the quality indicated herein. The products furnished shall be equal to, meet the quality of and specifications indicated herein and on the drawings, minimum.

**2.2 SITE VISITS:** The Contractor shall visit the sites to become thoroughly familiar with details of the work and working conditions, verify dimensions in the field, and shall advise the Contracting Officer of any discrepancies before starting the work.

**2.3 GEOTECHNICAL REPORT:** There is a Geotechnical Report for the Physical Training Area and for the Military Working Dog Area inclusive with this SOW.

**2.4 CAST-IN-PLACE CONCRETE CRITERIA:** [Provide a Design Mix submittal in accordance with the following criteria for approval prior to concrete work for this project]:

2.4.1 Concrete Slab on Grade and Piers:

2.4.1.1 3/4" maximum coarse aggregate.

2.4.1.2 28 day compressive strength of 3000 psi, minimum.

2.4.1.3 Maximum water to cementitious material ratio of 0.53.

2.4.1.4 Slump between 3" minimum and 4 1/2" maximum.

2.4.1.5 Air Content between 2% minimum and 4% maximum.

2.4.1.6 Use of fly-ash and/or ground-granulated-blast-furnace-slag shall be limited to 20% substitution by weight of cement.

2.4.1.7 Addition of water to batched concrete at the job site shall be limited to circumstances when the workability of delivered concrete is insufficient for practical placement and all of the water allowed by the mix design has not been added at the start of mixing. In no case shall the specified water to cementitious material ratio or slump be exceeded. Before any concrete shall be placed from the batch, a slump test shall be performed. Under no circumstances shall water be added to the concrete mixture after the slump test has been performed and the slump is within the specified limits indicated herein. Slump test shall be performed by an approved testing company with a standard slump cone in accordance with ASTM C-1611 recommendations.

2.4.1.8 Strength test cylinders shall be provided by Contractor by an approved testing agency on specimens that are representative of the work and which have been water soaked for at least 24 hours prior to testing. Specimens shall consist of not less than

## PHYSICAL TRAINING &amp; MILITARY WORKING DOG

three inch diameter cores or 3 inch cubes. A minimum of three [3] test cylinders shall be made for each pour, one each spaced at approximately the beginning, middle and near the end of each pour.

**2.4.2 Reinforcing Steel:** The Contractor shall provide new billet steel reinforcing conforming to ASTM A-615, ACI-315 and ACI-318 Grade 60, minimum. All reinforcing shall be continuous unless indicated otherwise. Stagger splices. Provide dowels matching size and spacing of main reinforcement, where required. Provide a submittal.

**2.4.3 Formwork:** Formwork shall be designed in accordance with the methodology of ACI 347R for anticipated loads, lateral pressure and stress. Form releasing agents shall be commercial formulations that shall not bond with, stain or adversely affect concrete surfaces. Forms shall be removed in a manner to prevent injury to the concrete and ensuring the complete safety of the structure. Formwork shall be removed when the concrete has attained sufficient strength to resist damage from the removal process, but not before 72 hours has elapsed minimum since the concrete placement. Provide a submittal.

**2.4.4 WIRE TIES:** The Contractor shall provide 6 inch-16 gauge steel rebar tie-wire at reinforcing bar cross members and at overlapping ends of reinforcing bar.

**2.4.5 CONCRETE PIERS** shall be priced based on the design depth of 15'-0" plus where required add a unit cost for each additional foot of depth beyond 15'0". The Contractor shall provide temporary pier casings to prevent caving and sloughing of the pier hole during pier drilling/reinforcement and concrete placement, where required. Provide a submittal.

**2.4.6 EARTHWORK MATERIALS:** Satisfactory materials include materials classified in ASTM D-2487 as GW, GP and SQ shall be free of trash, debris, roots other organic matter or stones larger than two inches in any dimension. Unsatisfactory materials include materials classified in ASTM D2487 as PT, OH, OL and any other materials not defined as satisfactory. Cohesionless and cohesive materials include materials classified in ASTM D2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH and CH. Materials classified as GM and SM shall be identified as Cohesionless only when the fines are nonplastic. Rock shall consist of boulders measuring ½ cubic yard or more and materials that cannot be removed without systematic drilling and blasting such as rock material in ledges, bedded deposits, unstratified masses and conglomerate deposits and below ground concrete or masonry structures, exceeding

1.2 cubic yard in volume, except that pavements shall not be considered as rock. Unyielding materials shall consist of rock and gravelly soil with greater than two inches in any dimension. Unstable materials shall consist of materials too wet to provide support. Subgrade shall consist of existing scarified and compacted materials as indicated herein. Topsoil shall be approved, stockpiled, off-site material and/or any additional off-site locally representative humus containing material necessary. Topsoil shall be free from tree roots, stones, shale, parent and other materials that hinder

grading, planting, plant growth and maintenance operations, and free from noxious and other objectionable weed seeds and toxic substances.

**2.5 FLEXIBLE BASE MATERIAL:** The Contractor shall provide an aggregate base of crushed limestone consisting of TxDOT Type A, Grade 1 limestone, compacted to 96% Standard Proctor Density within 2% points of the optimum moisture content. Material shall be placed in four-inch maximum lifts, below finish surface material. Compaction testing shall be provided in accordance with this SOW and submitted by the Contractor prior to placing asphalt paving. Provide a submittal.

**2.6 ASPHALT PAVING:** The Contractor shall provide TxDOT Item 340, Type D asphalt paving as indicated on the drawings at the PT area Base Bid or Bid Option. Asphalt criteria shall comply with the requirements of the polyurethane running track surface that shall be applied on top of the asphalt. Provide a Design Mix submittal in accordance with the TxDOT Item 340, Type D criteria. Provide MSDS for this product. Provide a submittal.

**2.7 SYNTHETIC RUNNING SURFACE:** The Contractor shall provide a multi-layer, synthetic, non-petroleum, resilient, polyurethane surface system equal to the DYAD system as manufactured by EpiQTracks with a five [5] year minimum warranty at the PT area Base Bid or Bid Alternate, as indicated on the drawings. The layers shall consist of flexible base material per item #2.4 above, covered with a 1 ½" asphalt paving per item

#2.5 above, covered with a prefabricated 10 mm thick, high quality rubber basemat, covered with an epiQ Pore Sealer, covered with a Polyurethane seal coat and top layer, then covered with full-pour polyurethane with embedded EPDM granules. Ref: drawings. Provide MSDS for this product. Provide a submittal.

**2.8 SYNTHETIC CANINE TURF:** The Contractor shall provide a Synthetic Turf at the MWD area as indicated on the drawings. The layers shall consist of flexible base material per Item #2.4 above, cover with a layer of washed gravel followed by the application of the synthetic turf with in-fill silica sand equal to Softlawn Kennel Cut as manufactured by Synthetic Turf International with a eight [8] year minimum warranty. Ref: drawings. Provide MSDS for this product. Provide a submittal.

**2.9 SYNTHETIC BASKETBALL SURFACE:** The Contractor shall provide a Synthetic Surface at the PT area as part of the Bid Option where indicated on the drawings. The Synthetic Surface shall be equal to the Cushion Plus system as manufactured by Synthetic Surface Specialist with a five [5] year minimum warranty. Ref: drawings. Provide MSDS for this product. Provide a submittal.

**2.10 PRE-ENGINEERED CANOPY:** The Contractor shall provide a Pre-Engineered Metal Building [PEB] at the PT Area Base Bid or Bid Alternate and MWD Area.as indicated on the drawings and as manufactured by Mueller, Inc., or approved equal, with erection drawings, anchor bolt drawings and structural calculation performed by a currently Texas registered engineer displayed on the submittal.

2.10.1 The design of the Pre-Engineered Building [PEB] Frame System shall be a clear span, rigid frame with straight-shaft columns [**no tapered columns**], portal frame, roof beams comprised of a gable roof frame with a 2:12 roof slope, minimum, throughout.

2.10.2 PEB Live Load shall be 20 psf [Note: Roof Live Load reduction allowed].

2.10.3 Collateral Load: 10 psf, minimum.

2.10.4 Snow Loads:

Ground Snow: 5 psf

Roof Snow: 3.5 psf

Snow Exposure factor: 0.9

Snow Importance Factor: 1.1

2.10.5 Wind Loads:

Basic Wind Speed [ASCE 7]: 115 mph

Risk Category: II

Wind Importance Factor: 1.0

Exposure: C

2.10.6 Seismic Loads:

Site: Class C

Seismic Design Category: B

Seismic Importance Factor: 1.0

2.10.7 Framing System Design:

2.10.7.1 Entire Building Framing System shall be designed as a single system. All framing sections and/or weld-up plate sections shall be designed in accordance with the latest edition of The American Institute of Steel Construction "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings." All cold-formed steel structural members shall be designed in accordance with the latest edition of the American Iron and Steel Institute "Specifications for the Design of Cold-Formed Steel Structural Members." The framing system shall be designed in accordance with the latest edition of the International Building Code [IBC]. Loading per building data herein. Allowable deflection of the primary framing shall not exceed  $L/240$  of the span.

2.10.7.2 PEB dimensions and column line locations for dimensioning shall comply with the drawings. No variations shall be permitted. Reference B/A-1, B/A-2 [A-12 references back to A-1] for column line locations for dimensioning.

2.10.7.3 Primary Framing: Structural plate or bar stock, minimum yield strength [ $F_y$ ] of 50000 psi. Cold formed structural steel minimum yield strength [ $F_y$ ] of 50000 psi.

Primary structural bolts and nuts ASTM A-325, size and quantity required by framing system manufacturer.

2.10.7.4 Rigid Frames: Frames shall consist of welded-up plate section columns and roof beams complete with necessary splice plates for bolted field assembly. All base plates, cap plates, compression splice plates and stiffener plates shall be factory welded into place and have the connection holes shop fabricated. Columns and roof beams shall be fabricated complete with holes in webs and flanges for the attachment of secondary structural members and bracing except for field work as noted on manufacturer's erection drawings.

2.10.8 Girts: Girts shall be Zee-Shaped, size and depth as required with minimum yield strength of 55000 psi. Simple span or continuous span, as required for design

2.10.9 Eave Girts: Eave Girts shall be factory pre-punched 'C' section sized to match purlins with minimum yield strength of 55000 psi.

2.10.10 Purlins: Purlins shall be Zee-Shaped, size and depth as required with minimum yield strength of 55000 psi. Simple span or continuous span, as required for design. Precision roll formed purlin spacing shall not exceed 4'-0."

2.10.11 Bracing: Roof frame bracing shall be diagonal 'X' bracing that shall be cable, rod or angle, sized as required.

2.10.12 Portal Frame: Fixed base Portal Framing shall be included to provide resistance to laterally applied forces. Reference drawings for locations.

2.10.13 Anchor Bolts: The Contractor shall provide anchor bolts sized in accordance with ASTM F-1554 and pre-engineered metal building manufacturer directions. Anchor bolts shall be hot dipped galvanized with washer and nut, The Hillman Group or equal. The Contractor shall provide anchor bolt shop drawings specifying the size[s] and locations of anchor bolts as per the pre-engineered metal canopy requirements, coordinated with all foundation work and the drawings.

2.10.14 Welding: Welding procedures, operator qualifications and welding quality standards shall be in accordance with the latest edition of the "American Welding Society Structural Welding Code."

2.10.15 Accessories: Adequate to meet AISC and MBMA specifications.

2.10.16 Painting: All framing steel shall be factory prime painted as temporary protection against ordinary atmospheric conditions. Subsequent finish painting shall be in accordance with Master Paint Institute standards. Prior to painting, all steel shall be cleaned of loose rust, loose mill scale, dirt and other foreign material. The fabricator shall not sandblast, flame clean or pickle prior to painting. Factory cover all steel with one coat of red oxide primer paint formulated to equal or exceed the

performance requirement of federal Specification TT-P-636D, TT-P-664C and SSPC Paint-25.

2.10.16.1 Primary Frames: Clean all steel per SSPC-SP2. Apply one coat of water reducible alkyd primer by spray or dip method to a minimum coating thickness of 1.0 mil.

2.10.16.2 Secondary Frames: Clean all steel per SSPC-SP8. Apply one coat of coil applied polyester primer to a minimum coating thickness of 0.5 mil [Purlins and Girts].

2.10.17 Metal Roof and Wall Panels: The panels shall be equal to Mueller, Inc. R-Panel and Mueller, Inc. U-Panel. The panels shall have a hail resistance of U.L. Class-4 Rating, shall be fire resistant and be wind resistant up to 140 mph. Colors shall be Mansard Brown and. Tan, per Mueller, Inc. Reference locations and colors on the drawings. The panels shall have been tested as defined in U.L. 580 and be Class 90. The panels shall be capable of resisting wind uplift pressure established per ASCE-7 and the International Building Code. The Contractor shall provide Metal Roof System with a 5-year minimum Warranty for Non-Structural Metal Roofing/Wall System, 30-year minimum warranty on manufacturer's material finish, 20-year minimum warrant on manufacturer's material against rust and 20-year minimum weather-tightness Warranty. The metal roof and wall panels shall be Aluminum-Zinc alloy coated [AZ-50 Galvalume] steel sheet, 26 gauge, ASTM A-792, Grade 40, Yield Strength 40 KSI, minimum, with seams at 36" O.C. Color sample shall be provided by the Contractor via submittal. Finish shall be full strength Kynar 500/Hylar 5000 Fluoropolymer coating applied by the manufacturer on a continuous coil line with a top coat to provide a total top side dry film thickness of 0.75 +or- 0.05 mil. over a 0.20 +or- 0.05 mil coat to provide a total top side dry film thickness of 0.95 +or- 0.10 mil. Bottom side shall be coated with a primer [non-metalics, only] and Beige urethane coating with a total dry film thickness of 0.35 +or- 0.05 mil. Finish shall conform to all tests for adhesion, flexibility and longevity as specified by the Kynar 500/Hylar 5000 finish supplier. Provide a submittal.

2.10.18 Metal Panel Accessories: All rake trim, peak boxes, outside corners, drip edges, rake end caps, transition trim, ceiling vents and accessories shall be of the same composition as the metal wall and roof panels, the model/type as indicted on the drawings and of the color indicated in the drawings. Screw head color for all attachments shall match the color of the surface to which they are attached, throughout.

2.10.19 All Roof and Wall panel laps shall face opposite to the direction of the prevailing wind of San Angelo, Texas which is South-Southwest to North-Northeast.

2.10.20 All roof panels, wall panels, accessories and fasteners shall be from a single manufacturer.

## PHYSICAL TRAINING &amp; MILITARY WORKING DOG

2.10.21 Roof Ridge Vent: Roof ridge vent shall be equal to Cor-A-Vent low profile floating ridge vent as manufactured by Rigid Global Buildings. Color shall match Mueller, Inc. Mansard Brown. Provide a submittal.

2.10.22 Gutter and Downspout: Provide new metal gutters and downspouts, bottom kickouts, downspout straps, gutter straps of sizes and types indicated on the drawings, minimum. Color shall be Mueller, Inc. "Mansard Brown," or equal. Color sample shall be provided by the Contractor via submittal.

2.10.23 Sealing Tape: The Contractor shall provide butyl sealing tape for metal roof panels and metal wall panels applied in accordance with the manufacturer's recommendations.

**2.11 COLD-FORMED METAL FRAMING:** Provide the following cold-formed framing:

2.11.1 7/8"-20 gauge [0.0359" thick], galvanized furring channels x length required equal to that by U. S. Gypsum. Placed and spaced according to the drawings. Provide submittal.

2.11.2 3 5/8"-18 gauge [0.0478" thick], galvanized x length required steel studs equal to that by U. S. Gypsum. Placed and spaced according to the drawings. Provide a submittal.

2.11.3 3 5/8"-20 gauge [0.0359" thick] galvanized x length required top and bottom steel track equal to that by U. S. Gypsum. Placed and spaced according to the drawings. Provide a submittal.

2.11.4 6"-18 gauge [0.0478" thick], galvanized x length required steel studs equal to said steel studs by U. S. Gypsum. Placed and spaced according to the drawings. Provide a submittal.

2.11.5 6"-20 gauge [0.0359" thick] galvanized x length required top and bottom steel track equal to that by U. S. Gypsum. Placed and spaced according to the drawings. Provide a submittal.

2.11.6 Metal Stud Reinforcing: U-Channel [CRC] 16 gauge [0.0598" thick], galvanized x 3/4' x length required channel [CRC] with 18 gauge [0.0478" thick], galvanized bridging clips. CRC shall be spaced at 4'-0" O.C. vertical, maximum, all equal to that by U.S. Gypsum. Metal Stud Reinforcing shall be installed with the herein specified 3 5/8" and 6" metal stud framing. Provide a submittal.

2.11.7 Fasteners: Self-drilling, self-tapping screws with steel in accordance with ASTM C-1513 and galvanization in accordance with ASTM B633. Provide a submittal.

**2.12 METAL ROOF DECK:** Metal Roof Deck shall be 1 1/2" 'B' wide-rib, 20 gauge [0.0359" thick], galvanized roof deck equal to that by Cordeck, [I = 0.212 In4/ft., Sp =

## PHYSICAL TRAINING &amp; MILITARY WORKING DOG

0.243 In3/ft., Sn = 0.255 In3/ft., weight-psf = 2.16] and in compliance with SDI Standards. Provide a submittal.

**2.13 BATT INSULATION:** Under roof deck batt insulation: R-30, ASTM C-665, Type III, Class A, NRC = 0.85, SSA = 0.86, FSK Faced Batts, 48" x 25'-0", minimum with 18" wide edge tabs [based on Purlin Spacing. Equal to EcoBatt Insulation with ECOSE technology by Knauf insulation. Secure with 1"-20 gauge [0.0359" thick] white steel banding [from 500 foot coils] at bottom and perpendicular to purlins at +or- 30" O.C., maximum. Provide a submittal.

**2.14 COATINGS:** "Coating" shall be the general term for material and process. "Paint" shall be defined as a mixture of a solid pigment suspended in a liquid which when applied to a surface dries to a protective and decorative coating. "Stain" shall be defined as a color in a dissolving vehicle that when spread on a surface penetrates to provide color within the surface. Coatings and practices shall comply with federal clean air standards. Lead-based metal primers and/or paints containing lead shall not be permitted and/or used in any coatings. Mecurial Fungicides shall not be permitted and/or used in any coatings. Volatile organic compounds [VOC] shall meet current VOC regulations. All coatings shall comply with the 'Approved Product List' of the Master Painter's Institute [MPI]. Provide MSDS for this item. Provide a submittal.

**2.15 STRIPING:** Striping [Ref: Drawings] for the PT & PT Bid option Areas shall be two [2"] two inches wide for basketball Court and four [4] inches wide for three Running Lane markings and shall be equal to Metalatex Semi-Gloss 1`00% acrylic emulsion coating as manufactured by Sherwin Williams [Provide MSDS for this product]. Provide a submittal.

**2.16 MWD OBSTACLE ITEMS:** Replace existing concrete MWD Training Items with like-kind manufactured obstacle items of the following [Ref: Drawings for locations (Item Numbers herein correspond with drawings)]:

	<u>Item #</u>	<u>Quantity</u>
2.13.1	[A.] Hurdle	3 Each
2.13.2	[B.] Window	1 Each
2.13.3	[C.] A-Frame	1 Each
2.13.4	[D.] Dog-Walk	1 Each
2.13.5	[E.] Tunnel	1 Each
2.13.6	[F.] Stair-Step	1 Each

2.17 Provide concrete bases for obstacle items, where required [Ref: Drawings]. Provide a submittal.

## 2.18 ELECTRICAL REQUIREMENTS:



2.18.1 Electrical: All electrical installation and components shall comply, be sized and installed in accordance with the National Electric Code. Provide power, panel boards, lighting fixtures, lamps, raceways, 600 volt wire and cable, wiring devices, device plates, devices, pull and junction boxes, safety switches, lighting and fan controls, circuit breakers, fuses, identification [nameplates, where required] wire and cable terminations and connections to individual units of equipment as required and where indicated on the Drawings. All wiring devices shall be U.L. listed, commercial specification grade, Switches shall be rated 20 amps at 120/277 volts, AC. Standard receptacles shall be commercial grade, 20 amp, duplex, grounding type, in NEMA configurations. Switches in the same location shall be ganged behind a single plate. Provide metal waterproof outlet covers at all duplex outlets. Provide a submittal.

2.18.2 Acceptable switch and receptacle manufacturers are Hubbell, Arrow-Hart, Bryant, Leviton, Pass & Seymour, General Electric, Slater, or equal. Provide a submittal.

2.19 **CONDUIT AND FITTINGS:** Conduit permitted shall be Rigid Galvanized, EMT or PVC. Conduit Types utilized shall be run only as permitted per code. All wiring shall be run in conduit. Conduit placed in concrete or run underground shall be rigid galvanized conduit or PVC. Conduit exposed or run in walls above grade shall be rigid or EMT. All conduit bends shall be free from dents and kinks. All conduit shall be electrically continuous from the service equipment to all outlets and shall be secured to all metal boxes with one lock nut outside, and one inside the box with a reinforced bakelite bushing. Leave a polypropylene pull string in all empty conduits. Provide a submittal.

2.20 **WIRE AND CABLE:** All wire and cables shall be U.L. listed and labeled and conform with applicable standards of U.L., NEMA, Federal Specifications and all other applicable industry standards. Connectors and Lugs shall meet U.L. Publication 486. All branch circuit wiring shall be 600 volt, copper, 60 degree C, minimum, Type THHN/THWN with a minimum size of #12 AWG. Wire sizes of #6 AWG and larger shall be stranded. Service and feeder cables shall be 600 volt, stranded copper, 75 degree C, minimum, Type XHHW. No sharing of neutrals and provide a separate ground. Provide a submittal.

2.21 Before energizing any equipment, verify that the correct power supply voltage, ampacity and phasing has been provided at the load side of the disconnect.

2.22 **CANOPY LIGHTING:** Canopy Lighting shall be LED light fixtures located in the quantities indicated on the drawings and shall be equal to the under canopy LED-P-XGSC100/50K/WH light fixture manufactured by naturaLED. Provide a light fixture guard equal to American Time G2071 at each canopy ceiling light fixture. Provide a submittal.

2.23 **CEILING FANS:** Ceiling fans shall be of the type and where located on the drawings. The ceiling fans shall be equal to the 16'-0" diameter Powerfoil D as

manufactured by Big Ass Fans with a ten [10] year minimum mechanical and ten [10] year minimum electrical warranty. The fans located at the PT area shall be three phase and the fans located at the MWD area shall be single phase. Provide a submittal.

**2.24 CHAIN-LINK FENCE AND GATES:** New chain-link fence, fence posts, top rails, post bracing, gate material and accessories shall be equal to that manufactured by General Wire & Supply Company, 3505 North Hillside, Wichita, Kansas 67219, [888] 250-1648. All components shall be from a single manufacturer.

2.24.1 Fence height shall be 6'-0" or 12'-0" layout and height as indicated on the drawings. Chain Link mesh shall be 9 gauge, 2" mesh, Class II with top edge knuckled and bottom edge twisted. All posts shall be round, cold-rolled, electric-resistance welded steel pipe in accordance with ASTM F-1043, Materials design group IC, WT-40 pipe, minimum steel yield strength 50000 psi. Type B external coating. End, Corner and Pull Posts shall be 2 7/8" O.D. pipe, weighing 3.26 lbs. per linear foot. Line posts shall be 2 1/2" O.D. pipe weighing 2.32 lbs per linear foot. All line posts shall be spaced at 10'-0" O.C., maximum. Gate posts shall be 2 7/8" O.D., 3.26 lbs per linear foot. Top Rail shall be 1 5/8" O.D. pipe weighing 1.43 lbs per linear foot. Post Bracing Assembly shall be 1.66" O.D. pipe weighing

2.27 lbs per linear foot. 3/8" diameter rod with adjustable take-up. Wire Ties shall be 9 gauge, Class II steel ties for tubular posts spaced at 2'-0" O.C., maximum, throughout. Tension wire shall be 7 gauge wire complying with ASTM A-824 metallic coated marcelled tension wire in accordance with ASTM A-817. Gates shall be 2" O.D. pipe weighing 1.75 lbs per linear foot. Hinges shall be non-lift-off type, offset to permit 180 degree gate opening. Set in concrete. Provide locking device and padlock eyes as integral part of latch, requiring one padlock for locking gate leaves. Provide keepers for all gates.

Finish shall for all fence components, mesh and materials shall be heavy galvanized 2.0 ounce per square foot complying with ASTM A-392. Provide a submittal.

**2.25 HYDRO-MULCHING:** Localized Hydromulching shall be accomplished only when satisfactory results can be expected. Hydromulching shall be performed on all areas indicated on the drawings. Provide a submittal.

2.25.1 Materials used in the Hydromulching operation shall be of the best quality available and consist of the following:

- 2.15.1.1 Grass – Applied from May 1<sup>st</sup> to September 1<sup>st</sup>
- 2.15.1.2 Conweb – 2000 wood cellulose fiber
- 2.15.1.3 Hulled Bermuda grass seed
- 2.15.1.4 8-8-8-fertilizer

2.25.2 The mixture shall be applied at the following rate:

- 2.15.2.1 50 pounds Conweb per 1000 square feet
- 2.15.2.2 2 pounds Bermuda grass seed per 1000 square feet

RFP 21-005: GAFB DEAAG CONSTRUCTION - CANOPY STRUCTURES & PT FIELD  
PHYSICAL TRAINING & MILITARY WORKING DOG

2.15.2.3	7 gallons liquid fertilizer	per 1000 square feet, or
2.15.2.4	70 pounds granular fertilizer	per 1000 square feet

2.25.3 Hydromulching shall be applied free from noxious weeds and undesirable plants, stones, roots of trees and other materials that hinder development and maintenance. Water shall be free from oil, acid, alkali salt and other substances that are harmful to growth of grass. Water shall be source approved prior to usage.

2.25.4 Replanting: Areas on which a stand of growing grass is not present in a reasonable length of time shall be hydromulched again in accordance with the appropriate planting season and shall continue to be hydromulched and maintained throughout the maintenance period until an acceptable stand is obtained. A stand shall be defined as live grass plants from hydromulching occurring over 95% of the area, with no more than 10 square feet left uncovered in any one place.

2.26 **CONCRETE RIPRAP:** Concrete Riprap shall be TxDoT Item #432, Class B Concrete. 4500psi at 28 days, air content of 5%-8%, water/cementitious ratio of 0.45, coarse aggregate nominal size of 3/4, or smaller. Class B concrete is air entrained concrete. Reinforcing shall be 6x6-W2.9xW2.9 welded wire fabric with 6" laps [secured with 6"-16 gauge rebar tie-wire] on chairs spaced at 4'-0" O.C.E.W., maximum. Provide per drawings. Provide a submittal.

2.27 **GOVERNMENT/CONTRACTOR SALVAGE/STORAGE:** The following items shall be rendered as indicated herein {Ref: drawings}:

Government Salvage:

PT Volleyball Net  
PT Light Poles  
MWD Excavated Dirt

Contractor Storage:

PT Alpha Warrior Unit [1 Each]  
PT Storage Containers [2 Each]  
PT Bleachers [1 Each]

**PART 3.0 – EXECUTION:**

3.1 **GENERAL:** All work shall be performed as indicated in this SOW, the drawings and in accordance with the manufacturer's diagrams, instructions and recommendations, unless otherwise specified. The Contractor shall field verify all dimensions and site conditions prior to commencement of any work for this project. Price increase adjustments to the original contract price shall not be issued because the Contractor was not aware of existing conditions. The Contractor shall provide all labor, materials, tools and equipment required to perform all preparation, demolition, disassembly, repairs, construction, installations and re-assembly as listed in this statement of work and the drawings.

3.2 **DEMOLITION:** The Contractor shall demolish and dispose of all items in accordance with this SOW and as indicated on the drawings. Retain indicated items per 2.22 The Contractor shall recycle or divert construction waste from landfill disposal

to the maximum extent practicable The Contractor shall track recycling and waste disposal and submit the report on the provided Construction Waste Management Form for Government Approval at the end of the project, and prior to final acceptance of the work. During demolition, the Contractor shall take all necessary precautions to prevent damage to existing property to remain in place. Any damage to the aforementioned shall be repaired and/or replaced by the Contractor at no additional cost to the Government.

**3.3 SITE EXCAVATION:** Strip topsoil and excavate regardless of material encountered, within the designated limits to the depth[s] indicated in the drawings. Select fill material excavated shall be transported to and placed in fill areas within the limits of the work. All unsatisfactory material including any soil which is disturbed by the Contractor's operations or softened due to exposure to the elements and water and surplus material shall be removed from the base. In no circumstance shall dumping of unsatisfactory material be allowed on base. In the event that it is necessary to remove unsatisfactory material to a depth greater than specified, the Contracting Officer shall be notified. Unsatisfactory material excavated below the grade shown and replaced with satisfactory material as directed shall be at no additional cost to the Government. Excavations carried below the depths indicated, without specific directions, shall, except as otherwise specified, be refilled to the proper grade with satisfactory material as directed. All additional work of this nature shall be at the Contractor's expense. Excavation and filling shall be performed in a manner and sequence that will provide drainage at all times. Excavations shall be kept free from water while work therein is in progress. Material required for fills in excess of that produced by excavation within the grading limits shall be obtained from borrow areas. Dispose of all materials in accordance with Part 5.0.

**3.4 PREPARATION OF GROUND SURFACE FOR FILL:** All vegetation, such as roots, brush, heavy sods, heavy growth of grass, and all decayed vegetable matter, rubbish, and other unsatisfactory material within the area upon which fill is to be placed, shall be stripped or otherwise removed before the fill is started. In no case will unsatisfactory material remain in or under the fill area. Sloped ground surfaces steeper than one vertical to three horizontal on which fill is to be placed shall be plowed, stepped, or broken up, as directed, in such manner that the fill material will bond with the existing surface. Prepared surfaces on which compacted fill is to be placed shall be wetted or dried as may be required to obtain the specified moisture content and density.

**3.4.1** Provide sensor tape in all utility trenches in accordance with this SOW and the drawings.

**3.5 BACKFILL:** Place no backfill until work to be covered has been approved. Material shall be free of debris and vegetation, preferably approved excavated material. Place moist in 4" lifts minimum and compact in accordance with this SOW and the drawings.

**3.6 GRADING:** Maintain a positive slope away from structures in all directions and as indicated on the drawings. The entire construction area shall be graded to drain water off-site into the established drainage ways. There shall be no area of ponding water in the construction area. The surface upon completion shall be smooth and in conformity with the sections and grades indicated on the drawings.

**3.7 TOPSOIL PREPARATION:** On areas to receive topsoil, the compacted subgrade soil shall be scarified to a depth of two inches for bonding of topsoil with subsoil.

**2.13 UTILITIES:** Protect all utilities.

**3.8 EROSION CONTROL:** Take necessary measures during the construction period to control eroded soil or any foreign substance from entering and drainage or waterway.

**3.9 TESTING:** Provide testing in accordance with this SOW.

**3.10 EXISTING ALPHA WARRIOR UNIT [AWU]:** The Contractor shall dismantle the existing AWU and store said unit during work for this project. The AWU individual leg bases only shall be re-installed after final location coordination with the Government prior to placement of the flexible base, asphalt and finish surface [Ref: A-17 of the Drawings]. The individual leg bases shall be adjusted to accommodate the new finish surface elevation for the PT Base Bid or for the Bid Alternate. The AWU shall be re-assembled near or at the end of construction.

**3.11 WELDING, CUTTING, AND BRAZING:** Fire Protection shall complete inspection of all welding, cutting and brazing operations prior to any operation. The Contractor shall provide the appropriate operable fire extinguisher[s]. The Contractor shall comply with American Welding Society AWI D1.1, OSHA STD29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements) and AFOSH 91-5 Welding, Cutting and Brazing. Air Force Form 592 USAF Welding, Cutting and Brazing permit shall be issued prior to any operation and shall be kept on site until completion of operation or permit expires. Contact Fire Protection at (325) 654-3532/33/34 for issuance of permit. Welding shall be performed by currently AWS certified welders and shall comply with AWS standards. The Contractor's welders shall produce current certification documentation upon request.

**3.12 MAINTENANCE GRADES AND EROSION REPAIR:** It shall be the responsibility of the Contractor to maintain the established grades of the planting at the PT and MWD areas after the commencement of planting operations and during the specified maintenance period. Any damage to the finished surface from Contractor's operations shall be promptly repaired. In the event erosion occurs from either watering operations or from rainfall, such damage shall be promptly repaired. Ruts, ridges, tracks, and other surface irregularities shall be corrected and the areas replanted, where required, prior to acceptance.

**3.13 CLEANUP:** The Contractor shall collect any and all trash, debris, refuse, garbage, etc., that is generate and place it in appropriate containers with lids or approved covers on a periodic basis or as directed by the Contracting Officer's representative. The aforementioned materials shall be hauled from the site by appropriate means on a daily basis, unless otherwise approved by the Contracting Officer's representative. Disposal shall be outside the limits of Government property. Disposal shall be by sanitary landfill or other approved methods and shall conform to all local, state, and federal guidelines, criteria, and regulations. Upon completion of the work, the Contractor shall leave the work site and storage area(s) in a clean, neat and workmanlike condition satisfactory to the Contracting Officer. It is anticipated that excavation, filling, and plowing of roadways shall be required to restore the area to near natural conditions that shall permit the growth of vegetation thereon. Restoration to original contours is required unless otherwise directed by the Contracting Officer.

**3.14** The Contractor shall be responsible for requesting a final inspection from TGC. At the contract final inspection, there shall be a joint Government (Goodfellow AFB & TGC) Contractor inspection to include operational testing of all building systems including lighting and ceiling fans to ensure all systems are operable.

**3.15 AS-BUILT DRAWINGS:** Following the project completion or turnover, within 14 days the Contractor shall furnish 2 redline sets of mark up as built drawings to the Contracting Officer. The statement "As-Built" and date shall be clearly marked at the lower right-hand corner of each drawing sheet.

**3.16 PRODUCT DATA:** Provide the Government with all Manufacturer's installation and maintenance instructions for all products and equipment.

#### **PART 4.0 – UTILITY OUTAGES AND SPECIAL CONDITIONS:**

**4.1 BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST:** The Contractor shall obtain and process AF Form 103 for approval prior to commencement of work for this project. The Contractor shall have this approved form on the job site at all times.

**4.1.1** Due to the requirement for multiple agencies to coordinate on these requests, expect 7 – 10 days for paperwork processing. Contractor requests should be submitted at the earliest possible date to preclude delays.

**4.2 UTILITY OUTAGES:** When a utility outage is necessary to perform the contract work in a occupied facility, regardless of whether the work area is occupied, the outage shall be performed by the Contractor during non-duty hours at no additional cost to the Government, unless otherwise approved by the Contracting Officer. The Contractor shall notify the Contract Inspector of outage requirements to include buildings affected; length of outage; and reasons for outage. The Contractor must allow affected occupants a minimum of two – (2) week notice prior to outage. The Contractor is also required to provide the Contracting Office a written notification of the requested outage.

**4.3 BASE FIRE REGULATIONS:** The Contractor shall comply with Base Fire Regulations as set forth in the latest edition of GAFB Instruction 32-2001, titled "Base Fire Protection Program". The Contractor shall use no explosives or fire in performing the work. All work shall be in strict compliance with all National Fire Codes.

**4.4 CONFINED SPACE:** In accordance With Air Force Occupational Safety & Health Standard. 91-25, Ch. 7, the organization shall coordinate with the Contractor regarding with the following when the Contractor enters a confined space:

4.4.1 Notify the Contractor if the space is classified permit or non-permit required.

4.4.2 Brief Contractor on the contents of the space.

4.4.3 Brief Contractor on the known hazards of the space.

4.4.4. Brief the Contractor on what precautions and procedures have been implemented by the organization to protect AF workers.

4.4.5 Coordinate operations and procedures and agree on permit system to be used if both AF and Contractor personnel shall enter the space at the same time.

4.4.6 The Fire Department shall coordinate (document) on the contract if they are supplying a rescue team.

4.4.7 The Contractor shall follow all requirements outline in OSHA Std. 1910.146.

**4.5 LOCKOUT/TAGOUT, HAZARDOUS ENERGY CONTROL:** In addition to the requirements in OSHA Std. 1910.147, if a Contractor needs to lock or tag something out, the Contractor shall ensure that affected employees are notified before and after the locks and tags are used.

## **PART 5.0 - ENVIRONMENTAL REQUIREMENTS:**

**5.1 COMPLIANCE WITH LAWS:** Construction activities shall NOT exempt from air emission, storm water, hazardous waste, and other environmental compliance rules and regulations. The Contractor shall comply and ensure that all Sub-Contractors comply with all applicable federal, state, and local laws, regulations, ordinances and standards related to environmental matters.

**5.2 PROTECTION OF HISTORICAL AND ARCHAEOLOGICAL RESOURCES:** All known Historical, Archaeological, and Cultural Resources within the Contractors work area shall be designated on the contract Technical Exhibits. The Contractor shall take precautions during the contract period to preserve all resources, as they existed at the time of contract award and comply with the Archaeological and Historic Preservation Act (AHPA) and the Archaeological Resources Protection Act (ARPA). The Contractor shall provide all protective devices such as off-limit markings, fencing, barricades or

other devices as needed and shall be responsible for preservation of the sites during this contract.

5.2.1 All items having any potential historical or archaeological interest outside of designated areas, which are discovered in the course of any construction activities, shall be carefully preserved. The Contractor shall protect the find in-place by leaving the archaeological find undisturbed and by using flags to mark a 50-foot radius area around the find. The find shall be immediately reported to the Contracting Officer so that the proper authorities may be notified. All work shall be stopped in the immediate area of the discovery until directed by the Contracting Officer to resume work. Any work required to preserve or protect these finds shall be accomplished before work resumes.

**5.3 HAZARDOUS AND SPECIAL WASTES GENERATED BY THE CONTRACTOR:**

The Contractor shall identify, characterize, containerize, store and dispose of hazardous wastes in strict accordance with federal guidelines found in the Code of Federal Regulations, Title 40 (40 CFR) parts 260-270, state regulation 30 TAC 335, all local guidelines, and as specified. A Uniform Hazardous Waste Manifest shall be used by the Contractor to document all parties and locations involved in the transportation, storage and disposal of all hazardous and special wastes. This form shall be provided to the government by the Contractor and signed by the Base Environmental Coordinator (CEIE) before the waste is transported from the limits of government property. A copy of the manifest shall be signed by the receiver of the waste and submitted to the Contracting Officer not later than forty-five days after disposal has taken place. Hazardous waste treatment, storage and disposal facility shall be located within in the state of Texas, permitted by the U.S. EPA, and approved by CEIE.

**5.4 CONTRACTOR ENCOUNTERED HAZARDOUS WASTE:** The Contractor shall notify the Contracting Officer's Representative and CEIE upon encountering any material not identified in this Statement of Work thought to be hazardous that could jeopardize the safety of workers or personnel in the area. The Government shall be responsible for characterization, transportation, storage and disposal of the waste if necessary.

**5.5 ASBESTOS:** To the best of the Government's knowledge, no asbestos-containing material (ACM) shall be encountered during this project. Should the Contractor encounter previously unidentified or suspected ACM, which must be disturbed to comply with the contract documents, the Contractor shall cease that work which would disturb the suspect material and shall immediately notify the Contracting Officer. The Government shall take appropriate measures to ascertain the material's composition and determine any remedial actions necessary.

5.5.1 Asbestos Containing Building Materials: Under no circumstances, under the provisions of this contract, shall the Contractor be allowed to provide asbestos containing building materials, or products containing encapsulated asbestos or mineral fibers as defined in the 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants of 1990, to GAFB.



5.5.2 The Contractor shall provide a signed statement, accompanied by Material Safety Data Sheets (MSDS) for project materials, from a licensed asbestos inspector or the project architect or engineer, proclaiming that no asbestos-containing building materials were used in the construction.

**5.6 HAZARDOUS MATERIALS:** The Contractor shall provide to the Contracting Officer an AF Form 3000, Material and Approval Submittal, listing all materials to be utilized during the contract. If any of the material is classified as hazardous in accordance with AFI 32-7086, the Contractor shall submit an AF Form 3952, (Chemical/Hazardous Material Request Authorization) for each material item with all supporting information as required for approval. The Contractor must obtain authorization from the Contracting Officer prior to bringing or using hazardous materials on the installation. The Contractor must supply an up-to-date MSDS for each requested AF Form 3952 item listed as a hazardous material, as defined to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the MSDSs submitted under this contract. The Contractor must maintain an onsite file of all MSDSs. As determined by the Contracting Officer, either on a monthly basis or at the end of the contract, the Contractor shall submit for approval by the Contracting Officer (via AF Form 3000), a Contractors Hazardous Materials Usage Report (2 copies) indicating usage of HAZMAT materials within the contract period on Goodfellow AFB. No hazardous materials, lubricants, oils, liquids or related materials shall be deposited in the refuse containers on base.

**5.7 NUISANCE AND POLLUTING ACTIVITY PROHIBITED:** Polluting, dumping, or discharging of any harmful, nuisance, or regulated materials (such as but not limited to concrete truck washout, vehicle maintenance fluids, residue from saw cutting operations, solid waste and hazardous substances) into building drains, site drains, streams, waterways, holding ponds or to the ground surface shall not be permitted and the Contractor shall be held responsible for any and all damages which may result. Further, the Contractor shall conduct work activities in such a fashion as to avoid creating any legal nuisance, including but not limited to, suppression of noise and dust, control of erosion, and implementation of other measures as necessary to minimize impacts of work activities.

**5.8 RELEASE OF FLUIDS TO THE SANITARY SEWER SYSTEM:** Goodfellow AFB's sanitary sewer system discharges into the Publicly Owned Treatment Works (POTW) operated by the City of San Angelo, Texas. This POTW has established testing requirements for certain constituents as well as discharge limits of those same constituents. Accordingly, any Contractor performing work at Goodfellow AFB and contemplating a release of non-hazardous water into the sanitary sewer system shall meet the pretreatment standards and comply with the testing/release requirements established by the City of San Angelo. Contractor is also responsible for all testing, monitoring, measuring, documenting, etc. to verify this compliance. Contractor shall

not discharge wastewater to base's sanitary sewer without prior approval of the Government.

**5.9 AIR EMISSIONS:** Media blasting may require registering the construction activity under state regulation 30 TAC 106.452. The Contractor shall prepare the state form PI- 7 for signature approval by the base prior to start of construction. The Contractor shall meet all provisions of the Permit-By-Rule.

**5.10 DRINKING WATER:** For all drinking water disruptions, the Contractor shall adhere to 30 TAC 290 Subchapter D paragraph 290.46(g and j). Submit an analysis report and a "Drinking Water Customer Service Inspection checklist" via an AF Form 3000 for Government Approval. Contact Bioenvironmental Engineering at (325) 654-3126 prior to restoring drinking water service.

**5.11 PROTECTION OF WATER RESOURCES:** All work under this contract shall be performed in such a manner that objectionable or nuisance conditions shall not be created in lakes, reservoirs, streams or storm water conveyances through or adjacent to the project areas. The Contractor shall comply with the terms and conditions of Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit, TXR150000 (GCP). At least 30 days prior to the start of construction, the Contractor shall seek coverage under the GCP for storm water and non-storm water discharges associated with his construction activities.

**5.11.1** For all soil disturbance of more than 1 acre, the Contractor shall prepare a Storm Water Pollution Prevention Plan (SWP3) meeting all requirements specified in the GCP and shall include the Contractor's Best Management Practices for erosion and sedimentation control at the site. This plan shall be submitted for Government approval (GA).

**5.11.2** Regardless of the amount of soil disturbed, all non-storm water discharges from Contractor's site shall be in conformance with TPDES General Permit TXR040000 for Small Municipal Separate Storm Sewer Systems (MS4).

**5.11.3** If a Notice of Intent (NOI) is required for permit coverage, the Contractor shall submit the NOI to the state and provide copies to the Government via Form 3000 FIO. Contractor shall make required MS4 notifications to the City of San Angelo and the base. Copies of all notifications shall be provided to the Contracting Officer via Form 3000 FIO. Contractor shall be responsible for fees associated with obtaining coverage under the GCP.

**5.11.4** The Contractor shall also file a Notice of Termination (NOT) TCEQ Form 20023 promptly after site stabilization in accordance with the general permit is achieved. These forms may be found at the TCEQ website ( <http://www.tceq.state.tx.us>). The prime Contractor's principal shall sign to certify the NOI/NOC/NOT or Construction Site Notice. A copy of the NOT shall be provided to the Contracting Officer and Base Environmental Coordinator, FIO.

5.11.5 The Government shall specify if the contracted project is part of a larger common development requiring additional storm water measures be taken to obtain permit coverage, or if the project area of construction is greater than 5 acres.

5.11.6 Post-Construction Cleanup or Obliteration: The Contractor shall obliterate all evidence of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess materials, or any other vestiges of construction. It is anticipated that excavation, filling, and plowing of roadways shall be required to restore the area to near natural conditions, which shall permit the growth of vegetation thereon. The disturbed areas shall be graded and filled as required, and topsoil shall be spread to a depth of approximately four inches over the entire area and the entire area seeded with 30 pounds (pure live seed) of common Bermuda per 1000 square feet and then watered as required until a lush hardy growth is established to the satisfaction of the Contracting Officer. Restoration to original contours is required unless otherwise directed by the Contracting Officer.

5.11.7 At the end of the project, and prior to final acceptance, the Contractor shall submit a solid waste diversion report by completing the Construction Waste Management form identifying the materials and weights either recycled or diverted from solid waste disposal to other re-use as well as weights of waste disposed in a landfill.

5.12 **GREEN PROCUREMENT:** Green Purchasing is a mandatory component of the Air Force pollution prevention program. The Under Secretary of Defense issued a policy memorandum "Establishment of the DoD Green Purchasing Program (GPP)" which states: "The DoD goal is to achieve 100% compliance with mandatory Federal GPP programs in all acquisition transactions." This document contains guidelines for implementing the RCRA, EO, DOD, and Air Force requirements.

5.13 **ENVIRONMENTAL MANAGEMENT SYSTEM:** Contractor's on site supervisory personnel shall complete EMS Awareness Training. The Base Civil Engineer Environmental Coordinator should be contacted at (325) 654-5946 for information to complete the awareness training within 60 days of contract award or a new contract employee supervisor begins work. The training shall be accomplished utilizing The Environmental Awareness Course Hub (TEACH) at <https://usaf.learningbuilder.com>. The Contractor is responsible for providing EMS Awareness Training records, for each employee, to the Contracting Officer

## **PART 6.0 - SITE MAINTENANCE AND CLEANUP:**

6.1 **SITE MAINTENANCE:** The Contractor shall protect adjacent property, buildings and their contents from dust, dirt or other materials. Work areas shall be maintained in a neat, clean, safe condition and shall, at a minimum, be cleaned at the end of each shift. All streets and roadways in/or adjacent to the site shall remain free of project generated trash and debris at all times.

## **PART 7.0 - ENERGY CONSERVATION:**

**7.1 UTILITIES CONSERVATION:** The Contractor shall instruct employees in utilities conservation practices. The Contractor shall be responsible for operating under conditions that preclude the waste of utilities, which shall include: Lights shall be used only in areas where and when work is actually being performed. The Contractor shall not adjust mechanical equipment controls for heating, ventilation and air conditioning systems. Water faucets or valves shall be turned off after the required usage has been accomplished. The Contractor shall use good judgment in the conservation of Government utilities. Prevailing energy conservation practices shall be adhered to and enforced by the Contractor.

## **PART 8.0 – RESPONSIBILITY:**

8.1 The above 1 through 7 summaries shall not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, and materials required by this Statement of Work.

## **PART 9.0 – STORAGE AND PARKING:**

**9.1 CONTRACTOR STORAGE:** The Contracting Officer's representative shall designate Contractor storage and parking area. All project storage areas shall be kept free of debris, leaks, stains, or splashes and kept in a neat, clean, and safe condition. Any contamination of the storage area by a hazardous substance shall be immediately remediated by the Contractor, in accordance with PART 5.0 above at no additional expense to the Government. All hazardous materials shall be secured when not in use.

## **PART 10.0 - COMPLETION OF WORK:**

**10.1 OPERATIONAL SYSTEMS:** The Contractor shall insure that work for this project is performed in accordance with the criteria herein and that all equipment and systems shall be fully operational at the completion of work for this project.

**-END OF STATEMENT OF WORK-**







ACCORD.	ACCORDANCE	DEMO	DEMOLITION
ACOUS. INSUL.	ACOUSTIC INSULATION	DET	DETAIL
ADDTN.	ADDITION	DIM	DIMENSION
ADJ.	ADJUSTABLE	DIST	DISTANCE
AFF	ABOVE FINISH FLOOR	DWG	DRAWING
ALUM.	ALUMINUM	EA	EACH
ATTEN.	ATTENUATING	ELEC	ELECTRIC(AL)
BITUM	BITUMINOUS	E.W.C.	ELECTRIC WATER COOLER
BLK	BLOCK	EXIST.	EXISTING
BLKG	BLOCKING	EXP. JT.	EXPANSION JOINT
BM	BENCH MARK	EQ	EQUAL
BOT	BOTTOM	E.W.	EACH WAY
CAB	CABINET	EXT.	EXTERIOR
CEM. BD.	CEMENTITIOUS BOARD	EXT. CAB.	EXTINGUISHER CABINET
CER TILE	CERAMIC TILE	F.D.	FLOOR DRAIN
CLG	CEILING	FEC	FIRE EXTINGUISHER CABINET
CONC.	CONCRETE	FIN	FINISH
CMU	CONC. MASONRY UNIT	FIN FLR	FINISH FLOOR
COL.	COLUMN	FLOUR.	FLOURESCENT
CONF.	CONFERENCE	FLR.	FLOOR
CONT.	CONTINUOUS	FLR. E.J.	FLOOR EXPANSION JOINT
COORD	COORDINATE	FURR'G	FURRING
CORR	CORRIDOR	GA.	GAUGE


GALV	GALVANIZED
GFE	GOVERNMENT FURNISH EQUIPMENT
GYP BD.	GYPSUM BOARD
H.C.	HANDICAPPED
HDWD.	HARDWOOD
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
INSUL	INSULATION
LAV	LAVATORY
MAINT	MAINTENANCE
MAX.	MAXIMUM
MECH.	MECHANICAL
MFRD.	MANUFACTURED
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MPE	MECHANICAL—PLUMBING-ELECTRICAL
MTD.	MOUNTED
MTL	METAL
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
OPNG.	OPENING
ORIG. BLDG.	ORIGINAL BUILDING
P	PLATE

PLYWD	PLYWOOD
PLBG.	PLUMBING
PROJ. MNT.	PROJECTOR MOUNT
PROT.	PROTECTION
PSI	POUNDS PER
	SQUARE INCH
R.A.F.	RAISED ACCESS FLOOR
REF.	REFERENCE
RESIL.	RESILIENT
RM.	ROOM
SCHED.	SCHEDULE
SCTN.	SECTION
SCW	SOLID CORE WOOD
SPEC.	SPECIFICATION
S.S.	STAINLESS STEEL
STL.	STEEL
STRUCT.	STRUCTURE
SUSP. GRID	
CLG. SYS.	SUSPENDED GRID
	CEILING SYSTEM
THK.	THICK
TYP.	TYPICAL
TYP. MRKR./	TYPICAL MARKER/TACK
TACK BD.	BOARD
UNC.	UNCASED

CLG. SYS.	SUSPENDED GRID CEILING SYSTEM
THK.	THICK
TYP.	TYPICAL
TYP. MRKR./	TYPICAL MARKER/TACK
TACK BD.	BOARD
UNC.	UNCASED

1. CS-1 COVER SHEET
2. CS-2 PLAN AND NOTES
3. CS-3 NOTES
4. D-1 DEMOLITION PT AREA
5. D-2 DEMOLITION PT AREA [BID OPTION]
6. D-3 DEMOLITION MWD AREA
7. C-1 SITE PLAN - PT
8. C-2 SITE PLAN - PT [BID OPTION]
9. C-3 SITE PLAN - MWD
10. A-1 FLOOR PLAN - PT & ELECTRICAL
11. A-2 FLOOR PLAN - MWD & ELECTRICAL
12. A-3 REFLECTED CEILING PLAN - PT & ELECTRICAL
13. A-4 REFLECTED CEILING PLAN - MWD & ELECTRICAL
14. A-5 ROOF PLAN - PT
15. A-6 ROOF PLAN - MWD
16. A-7 ELEVATIONS PT & MWD
17. A-8 BUILDING SECTIONS - PT & MWD
18. A-9 BUILDING SECTIONS - PT & MWD
19. A-10 WALL SECTIONS - PT & MWD
20. A-11 WALL SECTIONS - PT & MWD
21. A-12 FLOOR PLAN - PT [BID OPTION]
22. A-13 REFLECTED CEILING PLAN - PT [BID OPTION]
23. A-14 ROOF PLAN - PT [BID OPTION]
24. A-15 ELEVATIONS - PT [BID OPTION]
25. A-16 MISC DETAILS - PT & MWD
26. A-17 MISC DETAILS - PT & MWD

[illegible]

Designed by:	
Drawn by:	
Reviewed by:	
Submitted by:	

AEP TEXAS NORTH COMPANY IS THE UTILITY OWNER AND SOLE PROVIDER OF THE ELECTRICAL DISTRIBUTION UTILITY SYSTEM AT GOODFELLOW AIR FORCE BASE, TEXAS.

NEWLY PROVIDED SYSTEM INFRASTRUCTURE AND/OR MODIFICATIONS OF OR CONNECTIONS TO THE EXISTING SYSTEM INFRASTRUCTURE IDENTIFIED IN THE SPECIFICATIONS AND/OR DRAWINGS MUST BE COORDINATED WITH THE UTILITY OWNER PRIOR TO THE CONTRACT START DATE. TO CONNECT FACILITIES, THE CONSTRUCTION CONTRACTOR SHALL REQUEST THAT THE UTILITY OWNER PROVIDE THE REQUIRED CONNECTING FACILITIES, UP TO A POINT OF DEMARCATION WHICH INCLUDES ALL TERMINATIONS AT THE TRANSFORMER.

ALL WORK ON THE SYSTEM OR FACILITIES EXPECTED TO CONNECT TO THE SYSTEM SHALL COMPLY WITH THE UTILITY OWNER'S SPECIFICATIONS AND CONSTRUCTION STANDARDS. IN NO EVENT SHALL THE CONSTRUCTION CONTRACTOR CONNECT TO, OR OTHERWISE TOUCH THE UTILITY OWNER'S INFRASTRUCTURE WITHOUT THE UTILITY OWNER'S EXPRESS WRITTEN PERMISSION.

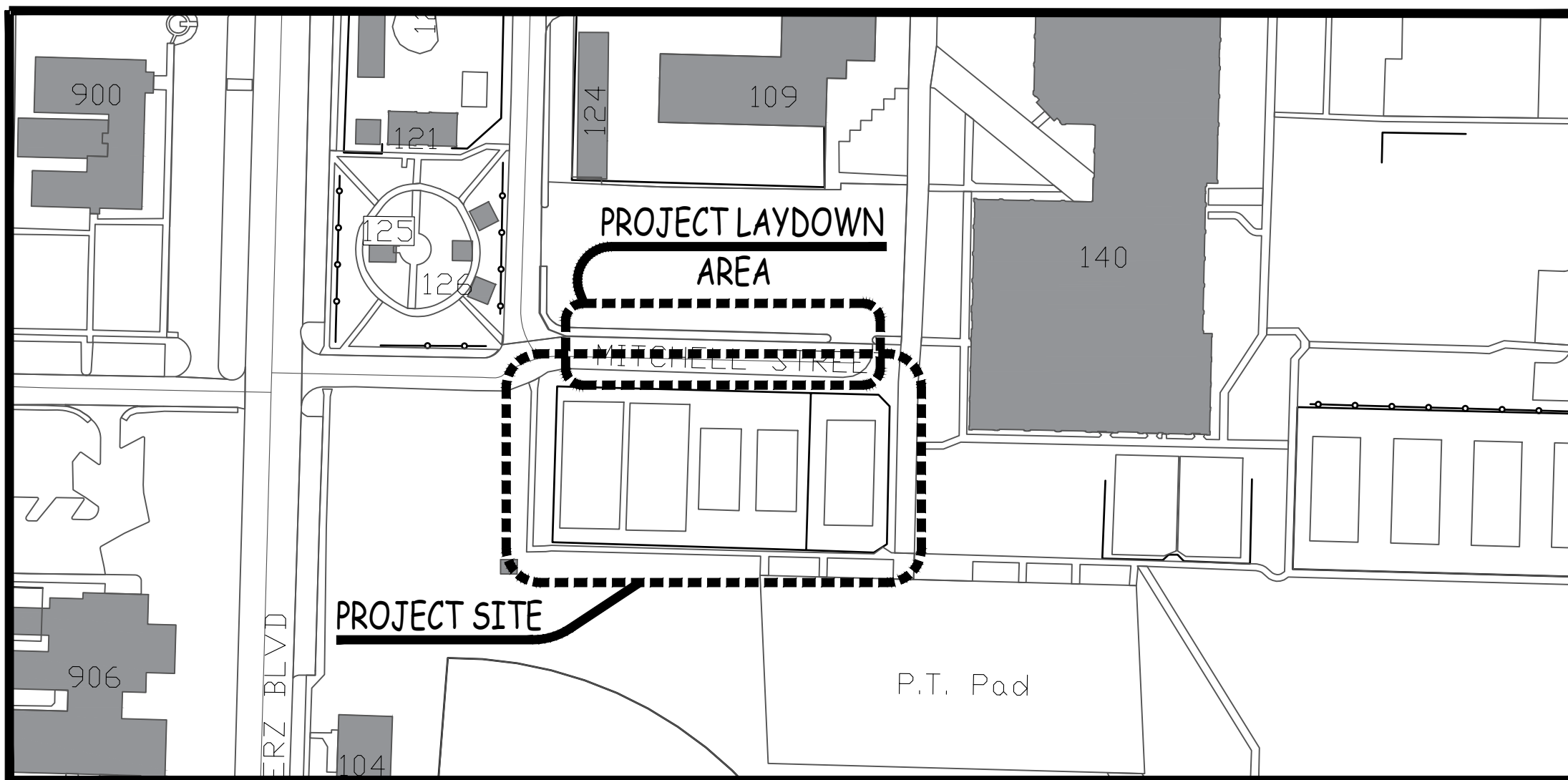
THE UTILITY OWNER: CONTACT VIA:  
AEP TEXAS NORTH COMPANY  
930 West 19th Street  
San Angelo, Texas 76903  
PHONE: 325-657-2800

1. SITE PLAN WITH ADJACENT STREETS OR LANDMARKS IDENTIFIED.
2. BUILDING PLAN SHEETS WITH THE FOLLOWING INFORMATION:
  - A. LOCATION OF SERVICE ENTRANCE
  - B. REQUESTED TRANSFORMER LOCATION, IF A PREFERENCE IS KNOWN.
  - C. SQUARE FOOTAGE OF BUILDING SPACE WITH THE TYPE OF LOAD TO BE SERVED.
  - D. ELECTRICAL PANEL SCHEDULE
  - E. NUMBER AND SIZE OF SECONDARY CONDUCTORS TO BE TERMINATED AT THE TRANSFORMER
  - F. PROPOSED LOCATION OF OTHER UTILITY ROUTES AND ENTRANCES.
3. LOAD DEMAND INFORMATION FROM EXISTING SIMILAR BUILDINGS.
4. SCHEDULE OF WORK.

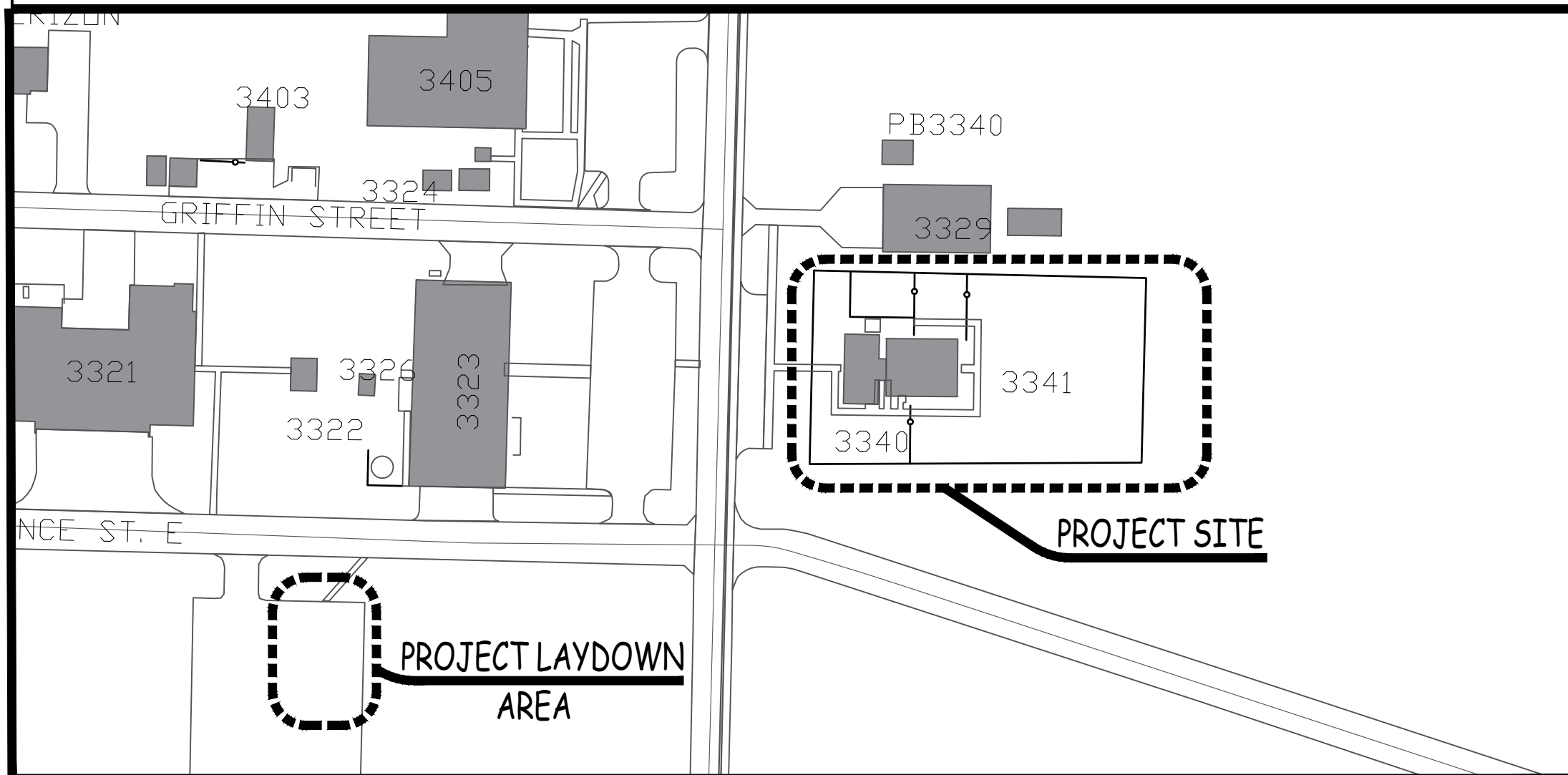
1. CONTACT NAMES AND NUMBERS UPON ARRIVAL AT THE SITE.
2. LOCATION OF TRANSFORMER PAD.
3. INSTALL SECONDARY CONDUITS INTO THE APPROPRIATE WELL LOCATION BEFORE PAD INSTALLATION. THIS INCLUDES ANY REQUIRED METERING CABLE CONDUITS.
4. PROVIDE FINAL GRADE IN TRANSFORMER PAD AREA PRIOR TO PAD CONSTRUCTION.
5. INSTALLATION OF ANY REQUIRED INSTRUMENT RATED METERING EQUIPMENT.
6. PROVIDE SECONDARY CABLE TERMINALS.
7. PRIMARY CONDUIT DITCH COMPACTION IF REQUIRED.
8. ASPHALT AND/OR CONCRETE CUT AND REPAIR IF REQUIRED.
9. LOCATION OF OTHER UTILITY LINES INSTALLED DURING THIS CONSTRUCTION.
10. TEMPORARY POWER POLE (SEE ATTACHED SKETCHES). LOCATION TO BE APPROVED BY AEP TEXAS. NOTE: ANY LINE EXTENSION REQUIRED FOR THE PURPOSE OF TEMPORARY SERVICE WILL REQUIRE A CIAC TO COVER THE COST OF INSTALLATION AND REMOVAL OF TEMPORARY FACILITIES AND ANY MATERIAL WHICH CANNOT BE REUSED.

1. SIZING AND INSTALLATION OF ALL PRIMARY CONDUCTORS INCLUDING DITCH AND CONDUIT.
2. SIZING AND INSTALLATION OF DISTRIBUTION TRANSFORMERS.
3. CONSTRUCTION OF TRANSFORMER PAD. SEE ATTACHED SKETCH
4. INSTALLATION OF SECONDARY CABLE TERMINALS.

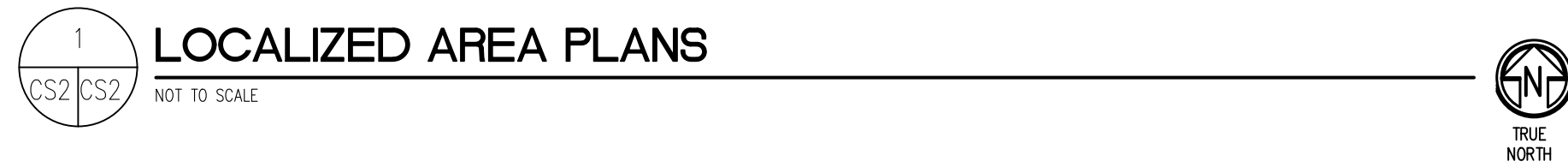
1. THE EDGE OF THE TRANSFORMER PAD SHALL NOT BE CLOSER THAN TWO FEET FROM A WALL, OR FIVE FEET FROM A DOOR OR WINDOW, OR TWENTY FEET FROM A STAIRWELL OR FIRE ESCAPE.
2. TRANSFORMERS SHALL NOT BE COMPLETELY ENCLOSED BY WALLS, FENCES, OR LANDSCAPING WITHOUT VENTILATION WHICH IS APPROVED BY AEP TEXAS. THE ENTIRE WIDTH OF THE FRONT OF THE TRANSFORMER AND SECONDARY CABINET SHALL BE ACCESSIBLE. IF A FENCE IS INSTALLED, IT WILL HAVE SUFFICIENT GATES NECESSARY TO PROVIDE THIS ACCESS.
3. TRANSFORMERS WILL BE LOCATED IN THE AREAS WITH ALL WEATHER ACCESS BY SERVICE TRUCKS. IN ADDITION, THERE WILL BE NO STRUCTURES CONSTRUCTED ABOVE TRANSFORMERS WHICH WOULD INHIBIT CRANE OPERATIONS.
4. NO OTHER UTILITY LINES WILL BE INSTALLED WITHIN TWO FEET OF THE TRANSFORMER PAD.
5. NO CUSTOMER EQUIPMENT, EXCEPT INSTRUMENT RATED METERING EQUIPMENT WHICH IS PLACED ON THE SECONDARY BUSBARS, SUBSTATIONS, OR BUS TIE TO THE TRANSFORMER PAD, NOR WILL THERE BE ANY HOLES DRILLED INTO THE TRANSFORMER CABINET FOR CONDUITS, CONDUCTORS OR METERS.
6. THE NUMBER AND SIZE OF THE SECONDARY CONDUCTORS WHICH ARE ALLOWED TO BE ATTACHED TO THE TRANSFORMER SECONDARY BUSHINGS WILL BE CONTROLLED BY AEP TEXAS. IF THE DESIGN REQUIRES MORE OR LARGER CONDUCTORS THAN ALLOWED FOR A PARTICULAR TRANSFORMER SIZE, AEP TEXAS WILL INSTALL A SECONDARY CABINET WITH BUS BARS (SEE ATTACHED SKETCH) ADJACENT TO THE TRANSFORMER. AEP TEXAS WILL SUPPLY AND INSTALL THE SECONDARY CONDUCTORS FROM THE TRANSFORMER TO THE SECONDARY CABINET. THE POINT OF INTERCONNECTION WILL BE THE BUS BARS WITHIN THE SECONDARY CABINET. THIS CABINET WILL REQUIRE A LARGER TRANSFORMER PAD AS SHOWN ON THE ATTACHED SKETCH.
7. TRANSFORMERS LARGER THAN 1000 KVA WILL REQUIRE A LARGER PAD. THIS PAD IS SHOWN ON THE SKETCH LABELED 1500 AND 2500 KVA.
8. TEMPORARY CONSTRUCTION POWER WILL BE SUPPLIED TO CUSTOMER SUPPLIED POWER POLES LOCATED WITHIN FIVE FEET OF AN EXISTING PAD MOUNTED TRANSFORMER OR WITHIN FIFTY FEET OF A PRIMARY POWER POLE (SEE ATTACHED SKETCHES).



PT AREA



MWD AREA



PROJECT TITLE

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CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE TEXAS

1056394

ABREVIATIONS, INDEX OF DRAWINGS AND LOCALIZED SITE PLAN

Date: APRIL, 2020

SEQ.	SHEET	OF
2	CS-2	26



1. CHADBOURNE ACCESS TO THE SITE SHALL BE THROUGH THE EXISTING GATE LOCATED ON SOUTH CHADBOURNE STREET. ALL CONSTRUCTION TRAFFIC ENTERING THE BASE SHALL BE REQUIRED TO PASS THROUGH THE COMMERCIAL VEHICLE SEARCH AREA LOCATED TO THE EAST OF KEARNEY BOULEVARD. HOURS OF OPERATION ARE FROM 6:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY, PHONE 325-654-1290.
2. THE CONTRACTORS SHALL KEEP ALL PUBLIC ROADS AND STREETS CLEAN OF CONSTRUCTION DEBRIS, MUD, ETC. AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE EQUIPMENT AND PERSONNEL TO CLEAN ANY STREETS AS REQUESTED BY 17CES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS TO STREETS, PARKING AREAS AND BASE OR GOVERNMENT PROPERTY DAMAGED FROM THEIR CONSTRUCTION ACTIVITIES.
3. CONTRACTORS SHALL MAINTAIN A CONSTRUCTION SITE NEAT AND CLEAN OF DEBRIS AS DIRECTED BY THE CONTRACTING OFFICER. THE CONTRACTOR WASTE DUMPSTERS SHALL BE EMPTIED ON A REGULAR BASIS.

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A TEMPORARY CONSTRUCTION CHAIN LINK FENCE, 6 FEET HIGH, AROUND THE LIMITS OF WORK NOT INCLUDING THE CONSTRUCTION ACCESS ROAD. COORDINATE CHAINS AND PADLOCKS ON GATES WITH GOODFELLOW FIRE DEPARTMENT. EACH GATE SHALL BE NUMBERED FOR EMERGENCY ACCESS, SHALL HAVE ENTRY/EGRESS SIGNAGE AND AREA LIGHTING. CONTRACTORS SHALL MAINTAIN FIRE ACCESS THROUGH EACH INDIVIDUAL CONSTRUCTION SITE AT ALL TIMES.
2. TRUCK WASHOUT AREA SHALL BE CONSTRUCTED, MAINTAINED AND CLEANED IN ACCORDANCE WITH TCEQ REGULATIONS. PROVIDE DETAILS AND MAINTENANCE PLAN AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN. STORMWATER PERMITS ARE REQUIRED PRIOR TO THE START OF CONSTRUCTION.
3. ALL CONTRACTORS SHALL STOCKPILE REQUIRED MATERIALS AND EQUIPMENT WITHIN LIMITS OF RESPECTIVE PROJECT AREAS OR STAGING AREA AS INDICATED ON THE DRAWINGS.
4. THE CONTRACTOR SHALL CONNECT TO EXISTING OR NEW FIRE HYDRANTS FOR TEMPORARY CONSTRUCTION WATER. INSTALL QUICK DISCONNECT, BACK FLOW PREVENTER AND SHUT-OFF VALVE ON 2 1/2" HOSE CONNECTION ONLY. PRIOR TO MAKING ANY CONNECTIONS TO BASE WATER SYSTEMS, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH TCEQ. A FIRE PLUG USAGE PERMIT IS REQUIRED AND USAGE SHALL BE METERED AT ALL TIMES.
5. ALL TEMPORARY ELECTRIC POWER FACILITIES SHALL MEET OR EXCEED NESC AND NEC REQUIREMENTS AS APPLICABLE FOR PRIMARY AND SECONDARY FACILITIES.

1. ACCESS TO THE PROJECT FOR ALL CONSTRUCTION PERSONNEL, VEHICLES AND EQUIPMENT IS ILLUSTRATED ON THE STAGING/LAYDOWN AND ACCESS PLAN. ACCESS ROUTES MAY BE SUBJECT TO CHANGE BASED ON OPERATIONAL REQUIREMENTS. POTENTIAL SCHEDULE IMPACTS SHALL BE COORDINATED WITH 17CES.
2. LOCATION OF ACCESS/ HAUL ROADS ARE AS INDICATED ON THE STAGING/LAYDOWN AND ACCESS PLAN.
3. ALL HAUL ROADS SHALL BE MAINTAINED SUCH THAT UNOBSTRUCTED ACCESS SHALL BE PROVIDED AT ALL TIMES FROM THE ROAD TO THE STAGING AREA AND FROM THE STAGING AREA TO THE WORK SITE AND FACILITATE GOVERNMENT ACCESS TO THE BASE AT ALL TIMES. THE MAINTENANCE OF HAUL ROADS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT. THE HAUL ROAD LOCATIONS SHALL BE AS INDICATED ON THE STAGING/LAYDOWN AND ACCESS PLAN OR BY 17CES.

4. CONTRACTOR SHALL COORDINATE ACTIVITIES THROUGHOUT THE PROJECT IN A MANNER THAT ALLOWS EMERGENCY ACCESS TO ALL EXISTING ROADWAYS AT ALL TIMES WITHOUT DELAYS TO EMERGENCY VEHICLES RESPONSE TIME.
5. ALL CONTRACTOR VEHICLES AND PERSONNEL MAY BE SEARCHED BY SECURITY FORCES WHEN ENTERING THE BASE AND MAY EXPERIENCE DELAYS. ALL PERSONNEL ENTERING GOODFELLOW AFB MUST HAVE A VALID PHOTO ID PER BASE SECURITY REQUIREMENTS. ALL VEHICLES ENTERING THE BASE MUST HAVE CURRENT/ VALID REGISTRATION, CURRENT/ VALID INSURANCE AND CURRENT/ VALID DRIVERS LICENSE FOR THE OPERATOR. ALL DRIVERS MUST COMPLY WITH ALL GOODFELLOW AFB DRIVING REQUIREMENTS (SPEED LIMITS, SEATBELTS, ETC.)
6. WHEN NOT ENGAGED IN CONSTRUCTION ACTIVITIES, THE CONTRACTOR'S CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE PARKED WITHIN THE WORK AREA OR STAGING AREA.

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CORDON OFF THE WORK AREAS AND STREET CROSSINGS BY USING APPROVED BARRICADES.

1. ONLY RUBBER-TIRED VEHICLES SHALL BE ALLOWED ON EXISTING PAVEMENT THAT IS TO REMAIN.
2. ANY DAMAGE TO ROADS AND PAVEMENT DUE TO CONSTRUCTION EQUIPMENT, CONSTRUCTION TRAFFIC OR CONSTRUCTION ACTIVITY SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS/ HER OWN EXPENSE.
3. CONTRACTOR SHALL BORE UNDER KEARNEY BOULEVARD AS NO OPEN CUTTING OF THIS STREET IS PERMITTED.

1. STOCKPILE ALL CONSTRUCTION MATERIALS WITHIN STAGING AREA. MAXIMUM HEIGHT 15.00' WITH 5:1 SIDE SLOPES. PROVIDE EROSION CONTROL PROTECTION AROUND THE STOCKPILE LIMITS. ANY MATERIALS THAT ARE TO BE STOCKPILED FOR USE FOR OTHER PROJECTS ON THE BASE SHALL BE COORDINATED WITH 17CES. ALL MATERIAL NOT REQUIRED SHALL BE HAULED OFF GOVERNMENT PROPERTY.

1. OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH ORANGE AND WHITE TYPE III BARRICADES AND WITH FLASHING TYPE A-LOW INTENSITY WARNING LIGHTS FROM DUSK TILL DAWN.

1. THE CONTRACTOR SHALL MAINTAIN SAFETY PRACTICES THAT CONFORM TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
2. AT ALL TIMES THE CONTRACTOR SHALL MAINTAIN ONE FIRE LANE FREE FROM OBSTRUCTION AND MAINTAIN ACCESS TO THE SITE AND ALL SURROUNDING ROADS AND STREETS.


1. THE CONTRACTOR SHALL FURNISH A CONSTRUCTION SAFETY PLAN IN ACCORDANCE WITH THE SPECIFICATIONS WITH THE CONTRACTOR'S PROJECT SCHEDULE. THE SAFETY PLAN SHALL IDENTIFY THE FOLLOWING ITEMS:

- A. PROPOSED ACCESS POINTS, STAGING AREA AND HAUL ROUTES.
- B. TEMPORARY MARKINGS TO BE USED, IF ANY.
- C. LOCATIONS AND TYPE OF BARRICADES OR OTHER TRAFFIC CONTROL DEVICES.
- D. METHODS BY WHICH THE CONTRACTOR WILL COMMUNICATE WITH 17CES.

1. THE CONTRACTOR SHALL KEEP ALL TIMES KEEP THE CONSTRUCTION SITE, CONSTRUCTION TRAILER(S)/BUILDING(S), AND STORAGE AREA(S) IN A CLEAN, NEAT, WORKMAN LIKE CONDITION, FREE FROM ACCUMULATION OF WASTE, RUBBISH, WEEDS, OVERGROWN GRASS, OR CONSTRUCTION DEBRIS, TO THE SATISFACTION OF THE CONTRACTING OFFICER. ALL LOOSE OR LIGHT WEIGHT MATERIALS SHALL BE SECURED TO PREVENT BLOWING OR SCATTERING. THE BURNING OF TRASH OR CONSTRUCTION DEBRIS IS STRICTLY PROHIBITED ON GOODFELLOW AFB. PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS, TOOLS, EQUIPMENT, AND MATERIALS NOT THE PROPERTY OF THE GOVERNMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL LEAVE THE WORK SITE AND STORAGE AREA(S) IN A CLEAN, NEAT, AND WORKMANLIKE CONDITION SATISFACTORY TO THE CONTRACTING OFFICER. REFER TO SECTION 01 57 20.16.44 - ENVIRONMENTAL PROTECTION FOR GOODFELLOW AFB, PARAGRAPH 3.17, POST-CONSTRUCTION CLEANUP.
2. THE CONTRACTOR SHALL KEEP FENCING IN A STATE OF GOOD REPAIR AND PROPER ALIGNMENT. GRASSED OR UNPAVED AREAS, WHICH ARE NOT ESTABLISHED ROADWAYS, WILL BE COVERED WITH A LAYER OF GRAVEL AS NECESSARY TO PREVENT RUTTING AND THE TRACKING OF MUD ONTO PAVED OR ESTABLISHED ROADWAYS, SHOULD THE CONTRACTOR ELECT TO TRAVERSE THEM WITH CONSTRUCTION EQUIPMENT OR OTHER VEHICLES; GRAVEL GRADATION SHALL BE AT THE CONTRACTOR'S DISCRETION. MOW AND MAINTAIN GRASS LOCATED WITHIN THE BOUNDARIES OF THE CONSTRUCTION SITE FOR THE DURATION OF THE PROJECT. GRASS AND VEGETATION ALONG FENCES, BUILDINGS, UNDER TRAILERS, AND IN AREAS NOT ACCESSIBLE TO MOWERS WILL BE EDGED OR TRIMMED NEATLY.
3. GRASS AND WEEDY VEGETATION WITHIN THE AREAS UTILIZED BY THE CONTRACTOR, INCLUDING WORK AREAS, ADMINISTRATIVE AREAS, AND STORAGE AREAS, SHALL BE KEPT MOWED TO CONTROL VEGETATIVE GROWTH. VEGETATION SHALL BE MOWED WHEN IT REACHES A HEIGHT OF 6 INCHES. MOWING SHALL BE TO A HEIGHT OF 3 INCHES. MOWING SHALL BE ACCOMPLISHED WITH A ROTARY MOWER THAT LEAVES THE CLIPPINGS EVENLY DISTRIBUTED ON THE SOIL SURFACE. MOWING SHALL BE ACCOMPLISHED DURING PERIODS AND IN SUCH MANNER THAT THE SOIL AND GRASS WILL NOT BE DAMAGED. TOWED OR SELF-PROPELLED RIDING MOWERS SHALL NOT BE OPERATED WITHIN 3 FEET OF TREES OR SHRUBS. AREAS ADJACENT TO TREES AND SHRUBS SHALL BE MOWED WITH HAND-PROPELLED MOWERS.
4. EROSION CONTROL DEVICES SHALL BE USED FOR THE STAGING AREA AND ANY MATERIAL STOCK PILES WHEN NECESSARY TO CONTROL EROSION AND STORM WATER RUNOFF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
5. AREAS NOT MOWED: GOVERNMENT MAY IMMEDIATELY AFTER NOTICE TO THE CONTRACTOR AND AT THE DISCRETION OF THE CONTRACTING OFFICER MOW THE CONTRACTOR'S AREAS AT ANY TIME THE VEGETATION HEIGHT EXCEEDS 6 INCHES.

1. THE CONTRACTOR SHALL COMPLY WITH THE CURRENT CITY OF SAN ANGELO, TEXAS WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN FOR ALL ON BASE WATER USAGE.

[illegible]

Designed by:	
Drawn by:	
Reviewed by:	
Submitted by:	

PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:	1056394
SHEET TITLE	NOTES
Date:	APRIL, 2020

SEQ.	SHEET	OF
3	CS-3	26

Ft. Lancaster Avenue

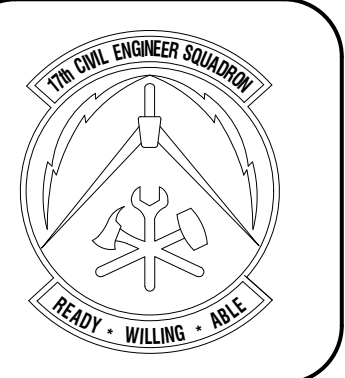
Existing Parking Lot

PB #141A

Mitchell Street

Fitness Center #140

Existing Troop Walk



Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

Designed by	Trask
Drawn by	
Reviewed by	
Submitted by	

PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:  
1056394  
SHEET TITLE  
DEMOLITION PLAN - PT  
BASE BID  
Date:  
April, 2020

SEQ.	SHEET	OF
4	D-1	26

GENERAL DEMOLITION NOTES:

WHERE SHOWN ON DRAWING: (#)

1. REPRESENTS ITEMS THAT SHALL BE DEMOLISHED:

2. CONTRACTOR SHALL COORDINATE SCHEDULING ALL WORK WITH CONTRACTING OFFICE.

3. CONTRACTOR SHALL TAKE CARE DURING DEMOLITION TO NOT DAMAGE AND/OR DISTURB

ANY ALL EXISTING CONDITIONS THAT ARE TO REMAIN IN PLACE.

4. CONTRACTOR SHALL REPAIR/REPLACE ANY/ALL DAMAGE OR DISTURBANCE TO EXISTING

CONDITIONS AT NO COST TO THE GOVERNMENT.

5. PROVIDE PROTECTION FOR ANY/ALL ITEMS THAT ARE TO REMAIN IN PLACE THAT ARE

NOT IN THE PROJECT.

6. CONTRACTOR SHALL SECURE AND STORE UNTIL RE-INSTALLATION AT PROJECT

COMPLETION.

7. AFTER DEMOLITION OF LIGHT POLES AND CONCRETE BASES, REMOVE ALL ELECTRIC WIRING

IN CONDUIT BACK TO THE EXISTING SOUTHWEST CORNER ELECTRIC PANEL. ABANDON

UNDERGROUND CONDUIT IN PLACE.

8. ALL DEMOLITION WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND COMPLY

WITH ALL APPLICABLE INDUSTRY-WIDE STANDARDS.

9. COORDINATE AND DOCUMENT ALL ITEMS THAT SHALL BECOME CONTRACTOR SALVAGE AND

AND ALL ITEMS THAT SHALL BE RETAINED BY THE GOVERNMENT.

10. DEMOLISH ALL ITEMS NOT SPECIFICALLY INDICATED, BUT OBVIOUSLY AND/OR NORMALLY

REQUIRED TO COMPLETELY AND PROPERLY EXECUTE THE DEMOLITION WORK.

11. NOT IN PROJECT = "NIP"

12. EXISTING SPOT ELEVATION =

13. FIELD OFFICE & LAY-DOWN AREA IN MITCHELL STREET.

DEMOLITION NOTES:

1. DEMO 12"x18" DIA LIGHT POLE CONCRETE BASE TO EXIST. GRADE.

2. REMOVE LIGHT POLE (TO GOVERNMENT).

3. DEMO 12'-0" HIGH CHAIN-LINK FENCE & FRAME.

4. DEMO 4'-0" Wx7'-0" T CHAIN-LINK GATE & FRAME.

5. DEMO CHAIN-LINK POSTS TO EXIST. GRADE.

6. DEMO 7'-0"x12'-0" PR CHAIN-LINK GATE & FRAME.

7. DEMO 12" WIDE CONCRETE SIDEWALK FOR ELECTRICAL.

8. DISASSEMBLE FITNESS RIG FOR STORAGE.

9. KEEP FITNESS RIG BASE PARTS FOR RE-INSTALLATION

PRIOR TO INSTALL OF BASE, ASPHALT & SURFACING(D/A-17).

10. REMOVE STORAGE CONTAINERS FOR STORAGE.

11. REMOVE VOLLY BALL NET (TO GOVERNMENT).

12. DEMO VOLLEY BALL NET FRAME TO EXIST. GRADE.

13. REMOVE BLEACHERS FOR STORAGE.

14. DEMO PLANTS (VERIFY QUANTITY).

15. ELECTRIC CONTROL BOX TO REMAIN IN PLACE.

16. LIMIT OF WORK FOR THIS PROJECT.

17. DEMO EXISTING CONCRETE TO ACCOMMODATE

CONCRETE PIER/FOOTING INSTALLATION(D/A-11).

18. REMOVE DEMO'D EXISTING LIGHT POLE WIRING IN

18. CONTINUED:

UNDER SLAB CONDUIT FROM DEMO'D LIGHT POLES

TO SOUTHWEST CORNER ELECTRIC PANEL. ABANDON

UNDERGROUND CONDUIT IN PLACE.

19. DEMO EXIST. CONCRETE FOR RAMP. REF: C-1

20. DRILL HOLES IN EXIST. CONCRETE PER A, C/A-17.

21. TREE TO REMAIN IN PLACE.

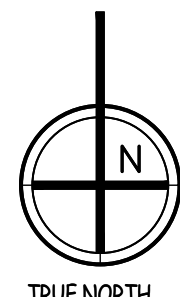
22. PLANTINGS TO REMAIN IN PLACE.

23. DEMO EXIST. ELECTRIC PANELS, ABOVE GRADE CONDUIT & POST.

24. EXIST. LIGHT POLE AND BASE TO REMAIN IN PLACE.

25. EXIST. CHAIN-LINK FENCE AND FRAME TO REMAIN IN PLACE.

PT Field



Base Bid  
A Demo Site Plan - PT  
SCALE: 1" = 10'-0"



Ft. Lancaster Avenue

Existing Parking Lot

PB #141A

Mitchell Street

Fitness Center #140

Existing Troop Walk

TBM ESTABLISHED AS 1870.93' - NAIL IN TROOP WALK EAST OF NEW PT CANOPY

62.3' APPROXIMATE

PT Field

GENERAL DEMOLITION NOTES:

- WHERE SHOWN ON DRAWING: (#)
1. REPRESENTS ITEMS THAT SHALL BE DEMOLISHED:
  2. CONTRACTOR SHALL COORDINATE SCHEDULING ALL WORK WITH CONTRACTING OFFICE.
  3. CONTRACTOR SHALL TAKE CARE DURING DEMOLITION TO NOT DAMAGE AND/OR DISTURB ANY/ALL EXISTING CONDITIONS THAT ARE TO REMAIN IN PLACE.
  4. CONTRACTOR SHALL REPAIR/REPLACE ANY/ALL DAMAGE OR DISTURBANCE TO EXISTING CONDITIONS AT NO COST TO THE GOVERNMENT.
  5. PROVIDE PROTECTION FOR ANY/ALL ITEMS THAT ARE TO REMAIN IN PLACE THAT ARE NOT IN THE PROJECT.
  6. CONTRACTOR SHALL SECURE AND STORE UNTIL RE-INSTALLATION AT PROJECT COMPLETION.

7. AFTER DEMOLITION OF LIGHT POLES AND CONCRETE BASES, REMOVE ALL ELECTRIC WIRING IN CONDUIT BACK TO THE EXISTING SOUTHWEST CORNER ELECTRIC PANEL. ABANDON UNDERGROUND CONDUIT IN PLACE.
8. ALL DEMOLITION WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND COMPLY WITH ALL APPLICABLE INDUSTRY-WIDE STANDARDS.
9. COORDINATE AND DOCUMENT ALL ITEMS THAT SHALL BECOME CONTRACTOR SALVAGE AND ALL ITEMS THAT SHALL BE RETAINED BY THE GOVERNMENT.
10. DEMOLISH ALL ITEMS NOT SPECIFICALLY INDICATED, BUT OBVIOUSLY AND/OR NORMALLY REQUIRED TO COMPLETELY AND PROPERLY EXECUTE THE DEMOLITION WORK.
11. EXISTING SPOT ELEVATION = 98.82

12. FIELD OFFICE & LAY-DOWN AREA IN MITCHELL STREET.

A Demo Site Plan - PT:Bid Opt.

SCALE: 1" = 10'-0"




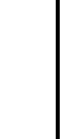
DEMOLITION NOTES: (#)

1. DEMO 12"X18" DIA. LIGHT POLE CONCRETE BASE TO EXIST. GRADE.
2. REMOVE LIGHT POLE (TO GOVERNMENT).
3. DEMO 12'-0" HIGH CHAIN-LINK FENCE & FRAME.
4. DEMO 4'-0"X6'-0" CHAIN-LINK GATE & FRAME.
5. DEMO CHAIN-LINK POSTS TO EXIST. GRADE.
6. DEMO 7'-0"X12'-0" RR CHAIN-LINK GATE & FRAME.
7. DEMO 12" WIDE CONCRETE SIDEWALK FOR ELECTRICAL.
8. DISSASSEMBLE FITNESS RIG FOR STORAGE.
9. KEEP FITNESS RIG BASE PARTS FOR RE-INSTALL PRIOR TO INSTALL OF BASE, ASPHALT & SURFACING(D/A-17).
10. REMOVE STORAGE CONTAINERS FOR STORAGE.
11. REMOVE VOLLY BALL NET (TO GOVERNMENT).
12. DEMO VOLLEY BALL NET FRAME TO EXIST. GRADE.
13. REMOVE BLEACHERS FOR STORAGE.
14. DEMO PLANTS (VERIFY QUANTITY).
15. ELECTRIC CONTROL BOX TO REMAIN IN PLACE.
16. LIMIT OF WORK FOR THIS PROJECT.
17. DEMO EXISTING CONCRETE TO ACCOMMODATE CONCRETE PIER/FOOTING PLACEMENT. REF D/A-11.
18. REMOVE DEMO'D EXISTING LIGHT POLE WIRING IN UNDER SLAB CONDUIT FROM DEMO'D LIGHT POLES.
18. TO SOUTHWEST CORNER ELECTRIC PANEL. ABANDON UNDERGROUND CONDUIT IN PLACE.
19. DEMO EXIST. CONCRETE FOR RAMP. REF: C-1.
20. DRILL HOLES IN EXIST. CONCRETE PER A, C/A-17.
21. TREE TO REMAIN IN PLACE.
22. PLANTINGS TO REMAIN IN PLACE.
23. DEMO EXIST. ELECTRIC PANELS, ABOVE GRADE CONDUIT & POST.
24. EXIST. LIGHT POLE AND BASE TO REMAIN IN PLACE.
25. EXIST. CHAIN-LINK FENCE AND FRAME TO REMAIN IN PLACE.
26. DEMO EXIST. IN-GROUND BASKETBALL HOOP ASSY.
27. EXIST. IN-GROUND BASKETBALL HOOP TO REMAIN IN PLACE.



Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

Designed by: 	Drawn by: 
Reviewed by: 	Submitted by: 

PROJECT TITLE
CANOPIES PT and MWD 17th TRAINING WING GOODFELLOW AIR FORCE BASE, TEXAS

Project Number: 1056394
SHEET TITLE DEMOLITION PLAN BID OPTION
Date April, 2020

SEQ.	SHEET	OF
5	D-2	26

Apache Trail  
parking Lot

EXISTING CONCRETE MWD  
TRAINING EQUIPMENT:



A. HURDLE



B. WINDOW



C. A-FRAME



D. DOG-WALK



E. TUNNEL



F. STAIR-STEP

A. HURDLE

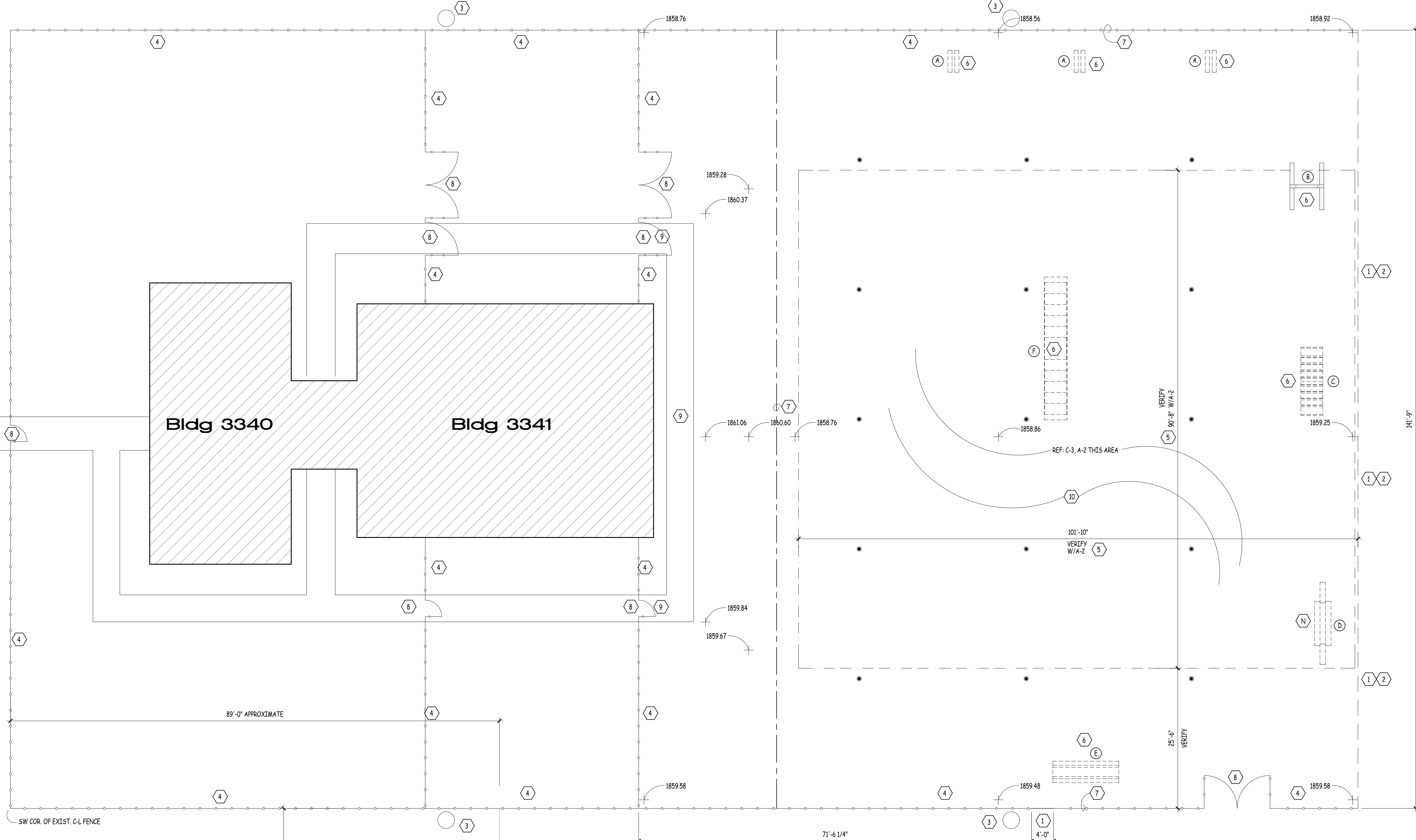
B. WINDOW

C. A-FRAME

D. DOG-WALK

E. TUNNEL

F. STAIR-STEP



A Demo Site Plan - MWD

SCALE: 1" = 10'-0"

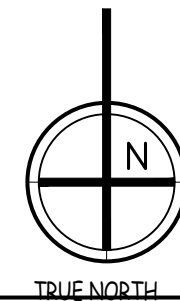
TBM ESTABLISHED AS  
1852.24 - NAIL IN NORTH  
EDGE OF VANZE STREET,  
SOUTH OF 83340/83341.

- DEMOLITION NOTES: (#)
1. DEMO 6'-0" HIGH CHAIN-LINK FENCE & FRAME.
  2. DEMO CHAIN-LINK FENCE POSTS
  3. EXISTING LIGHT POLE TO REMAIN IN PLACE
  4. EXISTING 6'-0" HIGH CHAIN-LINK FENCE TO REMAIN IN PLACE
  5. REMOVE 6" DEEP EXISTING GRADE MATERIAL [TO GOVERNMENT]
  6. DEMO EXISTING CONCRETE TRAINING OBSTACLES
  7. LIMIT OF WORK FOR THIS PROJECT.
  8. EXISTING 6'-0"x6'-0"-PR CHAIN-LINK GATE TO REMAIN IN PLACE.
  9. EXISTING SIDEWALK TO REMAIN IN PLACE.

10. EXIST. IRRIGATION SYSTEM SHALL BE RECONFIGURED TO ACCOMMODATE NEW MWD CANOPY. COORDINATE WITH GOVT.

- OBSTACLE ITEMS: (X)
- REF. IMAGES, THIS SHEET
- A. HURDLE
  - B. WINDOW
  - C. A-FRAME
  - D. DOG-WALK
  - E. TUNNEL
  - F. STAIR-STEP

- 1859.48 = EXISTING SPOT ELEVATION
- \* = EXISTING SPRINKLER HEAD



Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Designed by:	Drawn by:	Reviewed by:	Submitted by:

PROJECT TITLE
CANOPIES PT and MWD 17th TRAINING WING GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:
1056394
SHEET TITLE
DEMOLITION PLAN - MWD
Date:
April, 2020

SEQ.	SHEET	OF
6	D-3	26



Ft. Lancaster Avenue

Existing Parking Lot

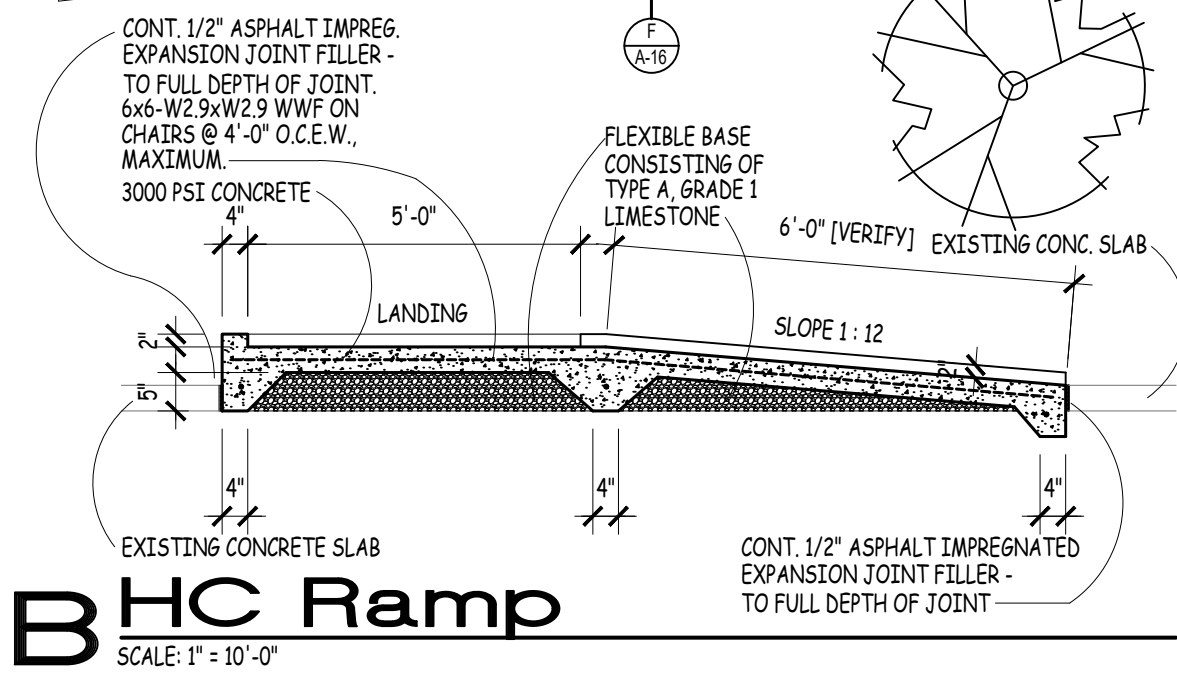
PB #141A

Mitchell Street

Fitness Center #140

Existing Troop Walk

N.I.P.



**A Site Plan - PT: BASE BID**  
SCALE: 1" = 10'-0"

REF: A-1 FOR ADDITIONAL INFORMATION. (#)

1. ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE THE COLUMN FURNISHING SPACE TERMINATING AT COL. F2 FROM F2 THEN TRENCH TO THE ELECTRIC PANEL AT THE SW CORNER OF THE PT AREA.
2. NO SURFACE WORK, THIS AREA.

4. LEG BASES FOR THE FITNESS RIG SHALL BE PLACED PRIOR TO INSTALL. OF BASE MATERIAL, ASPHALT PAVING AND RUNNING SURFACE.
5. PREP AREA AND PROVIDE RIPRAP CONCRETE IN THIS AREA.
6. REF: D/A-11 FOR PIER/FOOTING.
7. REF: A/A-16 FOR COLUMN FURNISHING.
8. FIELD OFFICE & LAY-DOWN AREA IN MITCHELL STREET.

LEGEND:

= NEW RUNNING SURFACE

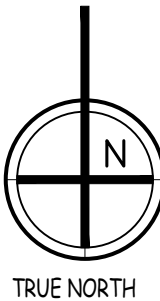
= NEW SPOT ELEVATIONS

= EXISTING SPOT ELEVATIONS

"NOT IN PROJECT" = N.I.P.

PT Field

COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND NEC.



PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:

1056394

SHEET TITLE

SITE PLAN - PT: BASE BID

Date:

April, 2020

SEC.

7

SHEET

C-1

OF

26

Designed by:



Drawn by:

Reviewed by:

Submitted by:

Symbol

Description

Date

Appr.

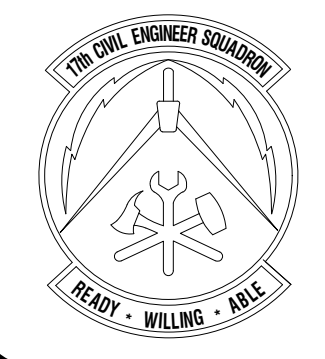
REVISIONS

Symbol

Description

Date

Appr.



Ft. Lancaster Avenue

Existing Parking Lot

PB #141A

Mitchell Street

Fitness Center #140

Existing Troop Walk



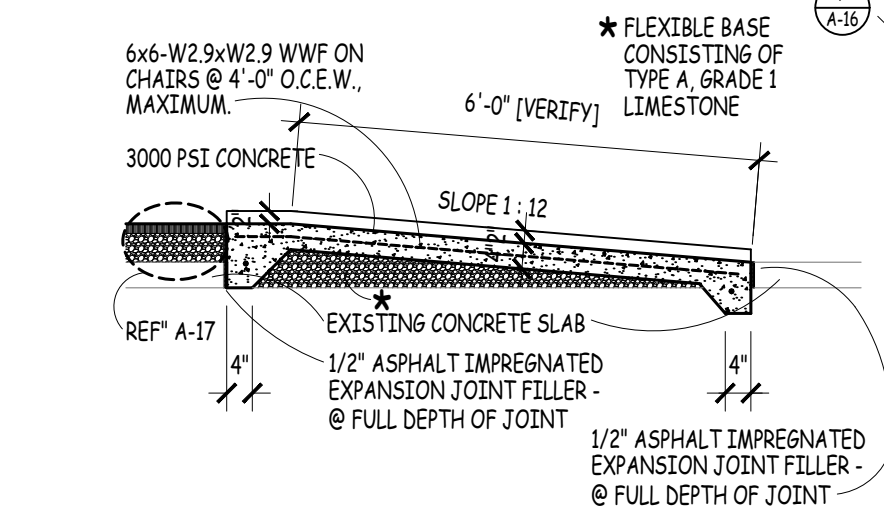
Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Designed by	Task
Drawn by	
Reviewed by	
Submitted by	

Project Number:	1056394
SHEET TITLE	SITE PLAN - PT BID OPTION
Date:	April, 2020

SEQ.	SHEET	OF
8	C-2	26

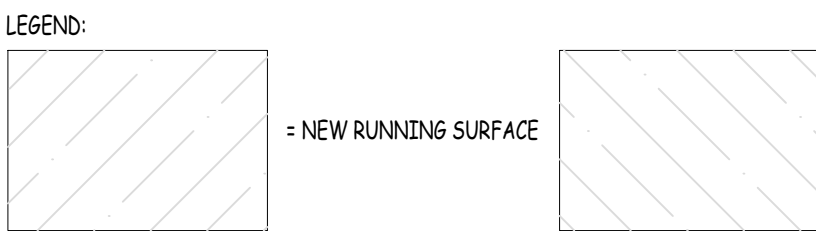


BHC Ramp  
SCALE: 1" = 10'-0"

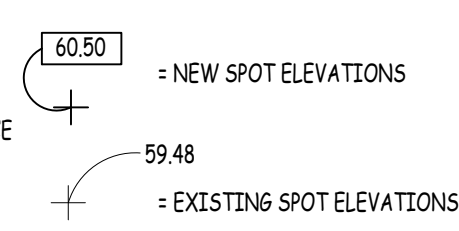
- REF: A-12 FOR ADDITIONAL INFORMATION (#)
1. ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE COLUMN FURRING SPACE TERMINATING AT COL. F2 FROM F2 THEN TRENCH TO THE ELECTRIC PANEL AT THE SW CORNER OF THE PT AREA.
  2. PRE BASKETBALL COURT AREA FOR NEW SURFACE.
  3. PROVIDE HYDROMULCHING THIS AREA.

A Site Plan - PT Bid Opt.  
SCALE: 1" = 10'-0"

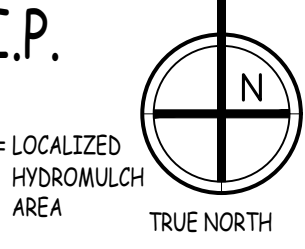
4. LEG BASES FOR THE FITNESS RIG SHALL BE PLACED PRIOR TO INSTALLATION OF BASE MATERIAL, ASPHALT PAVING AND RUNNING SURFACE.
5. PREP AREA AND PROVIDE KIRAP CONCRETE IN THIS AREA.
6. REF: A/A-11 FOR PIER/FOOTING
7. REF: A/A-16 FOR COLUMN FURRING
8. FIELD OFFICE & LAY-DOWN AREA IN MITCHELL STREET.



COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND NEC.



"NOT IN PROJECT" = N.I.P.



PT Field



Apache Trail  
parking Lot

NEW CONCRETE MWD  
OBSTACLE EQUIPMENT,  
[REF: A-17]



A. HURDLE



B. WINDOW



C. A-FRAME



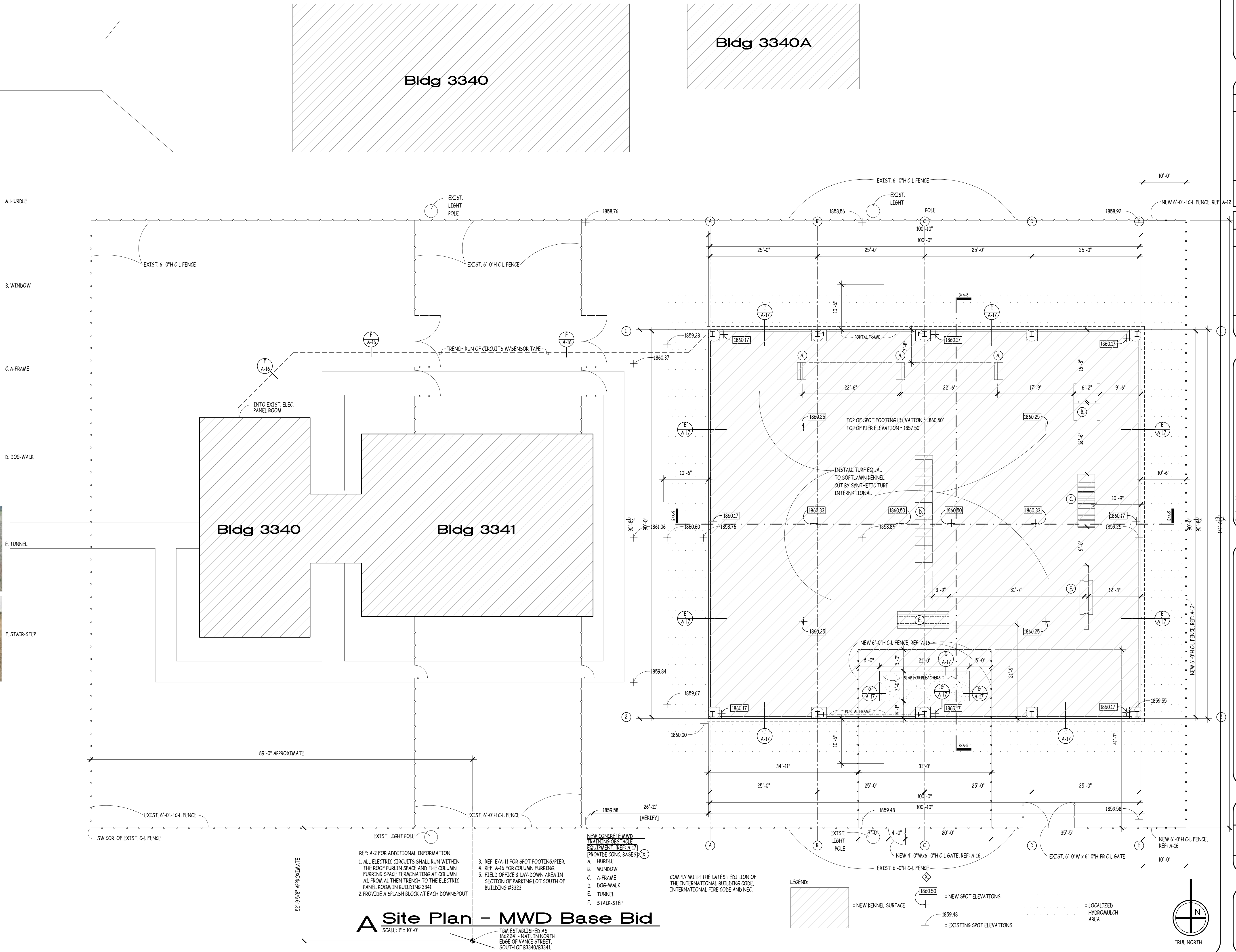
D. DOG-WALK



E. TUNNEL



F. STAIR-STEP



A Site Plan - MWD Base Bid

SCALE: 1" = 10'-0"

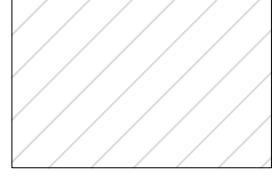
REF: A-2 FOR ADDITIONAL INFORMATION.  
1. ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE COLUMN FURRING SPACE TERMINATING AT COLUMN.  
A1. FROM A1 THEN TRENCH TO THE ELECTRIC PANEL ROOM IN BUILDING 3341.  
2. PROVIDE A SPLASH BLOCK AT EACH DOWNSPOUT

3. REF: E/A-11 FOR SPOT FOOTING/PIER.  
4. REF: A-16 FOR COLUMN FURRING.  
5. FIELD OFFICE & LAY-DOWN AREA IN SECTION OF PARKING LOT SOUTH OF BUILDING #3323

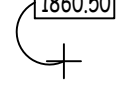
NEW CONCRETE MWD  
TRAINING DESK/PALE  
EQUIPMENT, [REF: A-17]  
[PROVIDE CONC. BASES]:  
A. HURDLE  
B. WINDOW  
C. A-FRAME  
D. DOG-WALK  
E. TUNNEL  
F. STAIR-STEP

COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND NEC.

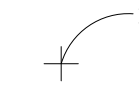
LEGEND:



= NEW KENNEL SURFACE

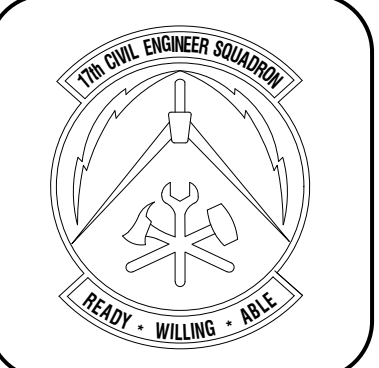
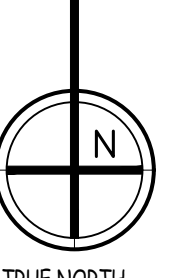


= NEW SPOT ELEVATIONS



= EXISTING SPOT ELEVATIONS

= LOCALIZED  
HYDROMULCH  
AREA



Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

Designed by:	Drawn by:	Reviewed by:	Submitted by:
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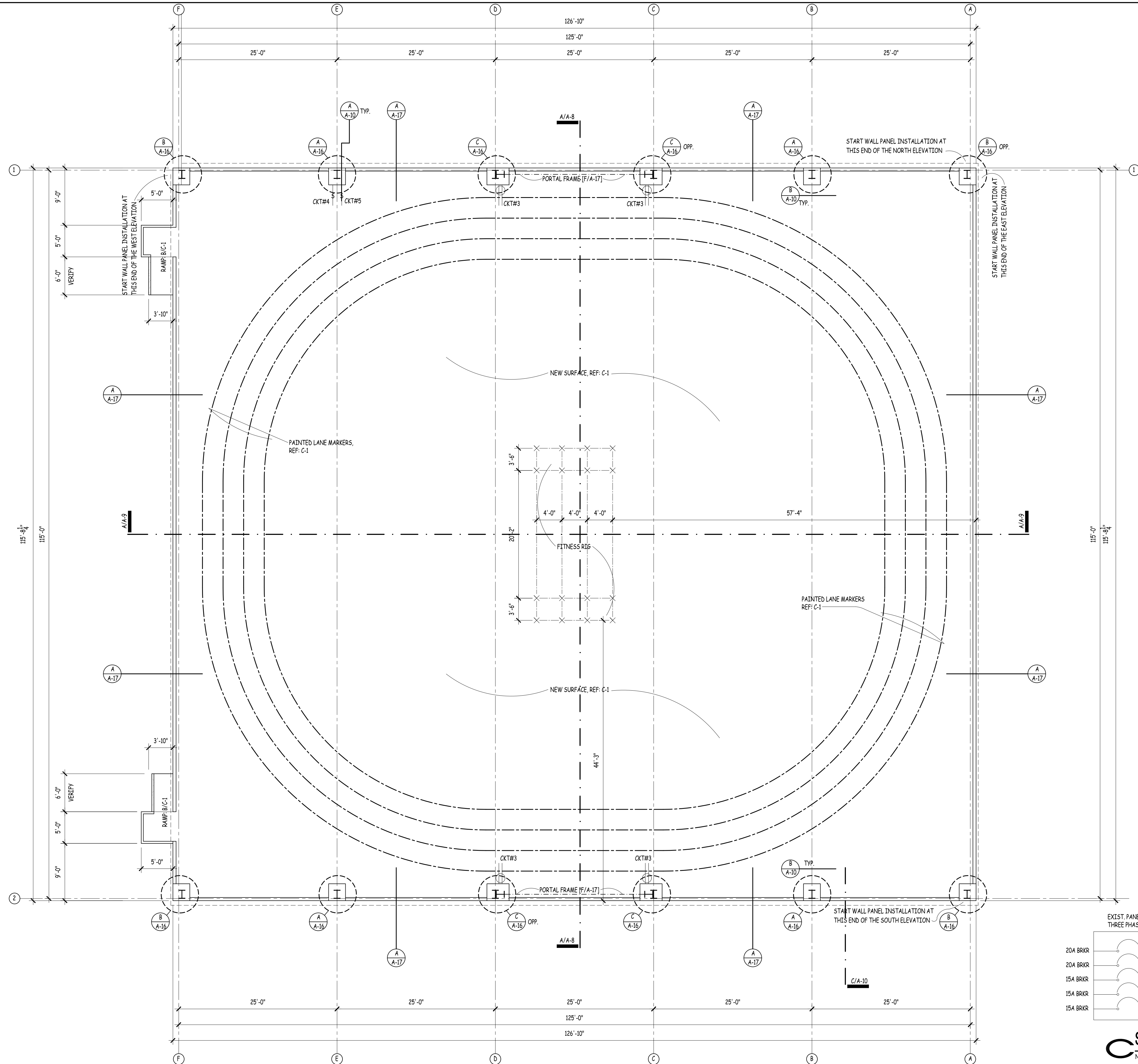
PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:  
**1056394**

SHEET TITLE  
**SITE PLAN - MWD  
BASE BID**

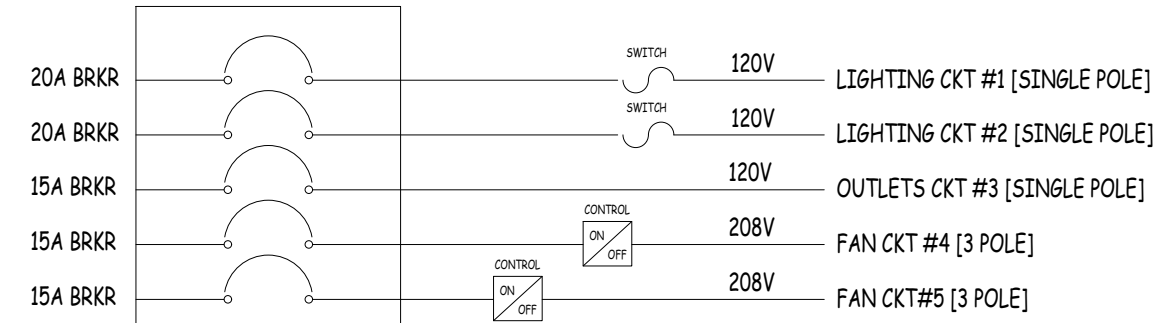
Date:  
**April, 2020**

SEQ.	SHEET	OF
<b>9</b>	<b>C-3</b>	<b>26</b>

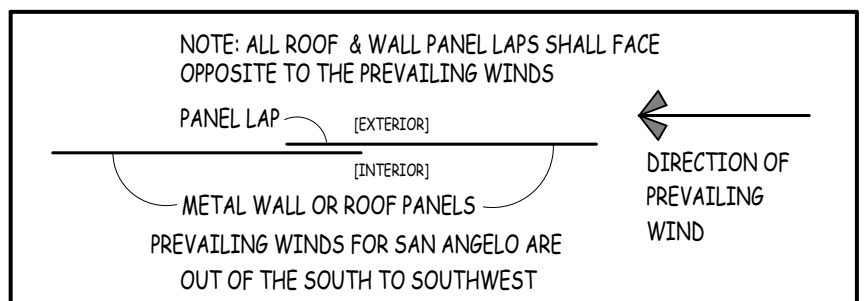


**B** Typ. Col. Line Loc.  
NOT TO SCALE

- PT ELECTRICAL NOTES:
1. FOR THE 2 FANS 3 PHASE, THE CONTRACTOR SHALL USE THE 2-3 PHASE SPARE BREAKERS IN THE EXIST. PANEL. THE CONTRACTOR SHALL CHANGE THE 100A EXISTING BREAKER TO NEW 20A-3 PHASE BREAKERS FOR THE FANS.
  2. THE CONTRACTOR SHALL USE THE BREAKER SPACES IN THE EXIST. PANEL FOR THE LIGHTING AND OUTLET CIRCUITS.
  3. ALL THE OUTLETS MUST BE GROUND FAULT AND IN J-BOXES W/METAL WEATHERPROOF ENCLOSURES.
  4. THE CONDUIT FOR EACH CIRCUIT SHALL BE 1/2" EMT AND PVC FOR UNDERGROUND AND THE CABLE 12THWN.
  5. PROVIDE TIMER SWITCHES FOR LIGHTS W/BUZZER.
  6. PROVIDE SURGE PROTECTION AT PANEL.



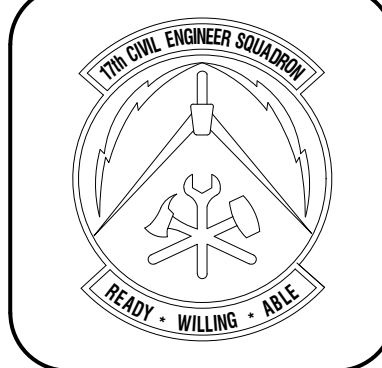
**C** Single Line Diagram  
NOT TO SCALE



REF: C-1 FOR ADDITIONAL INFORMATION.  
ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE THE COLUMN FURRING SPACE TERMINATING AT COL. F1 FROM THERE TRENCHED TO THE ELECTRIC PANEL AT THE SW CORNER OF THE PT AREA. REF: C-1.  
COORDINATE RE-INSTALL LOCATION OF ALPHA WARRIOR UNIT WITH THE GOVERNMENT.

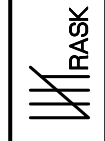
COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND NEC.

**A** Floor Plan - PT Base Bid  
SCALE: 1/8" = 1'-0"



Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Designed by: 	Reviewed by:	Submitted by:
Drawn by:		

**CANOPIES**  
**PT and MWD**  
**17th TRAINING WING**  
**GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:	1056394
SHEET TITLE	FLOOR PLAN - PT BASE BID
Date:	April, 2020

SEQ.	SHEET	OF
10	A-1	26



FOR REFERENCE NEW  
CONCRETE MWD  
TRAINING EQUIPMENT:



A. HURDLE



B. WINDOW



C. A-FRAME



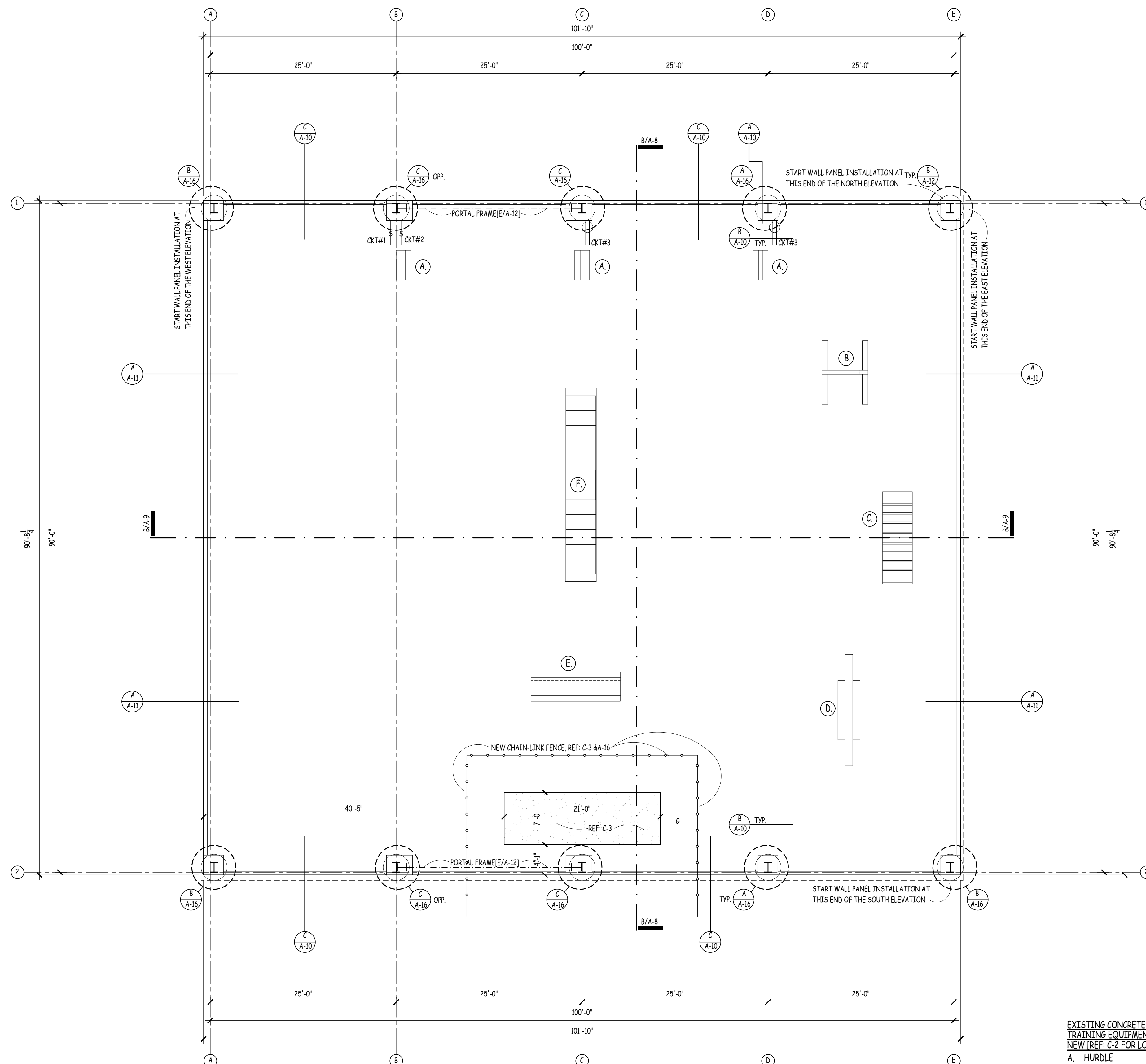
D. DOG-WALK



E. TUNNEL



F. STAIR-STEP

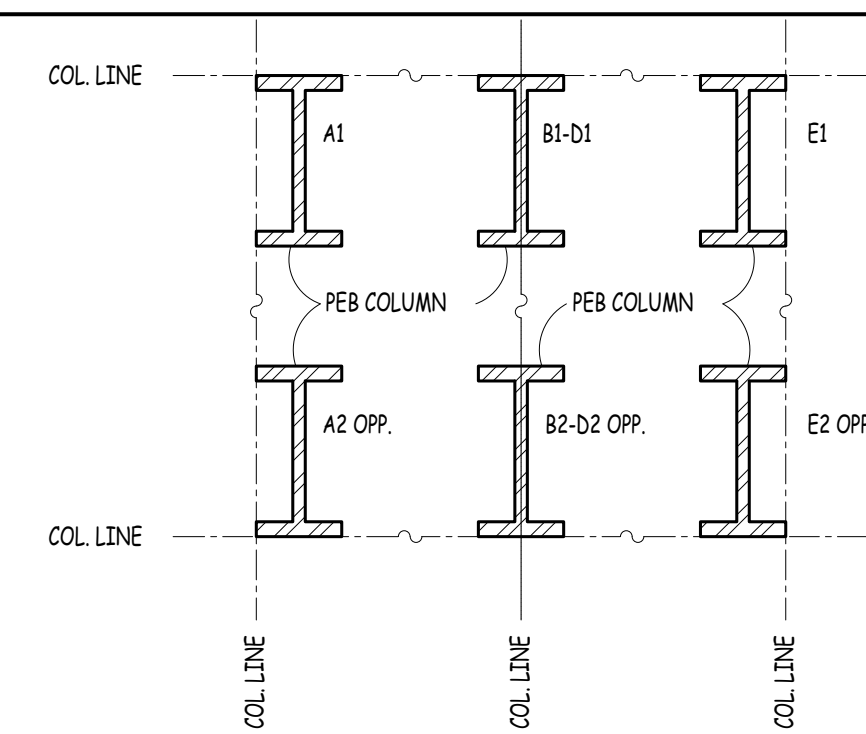


REF: C-2 FOR ADDITIONAL INFORMATION  
PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUTS  
ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE  
THE COLUMN FURRING SPACE TERMINATING AT COL. A1. FROM THERE TRENCHED  
TO THE ELECTRIC PANEL ROOM IN BUILDING 3341. REF: C-3.

COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE,  
INTERNATIONAL FIRE CODE AND NEC.

## A Floor Plan - MWD Base Bid

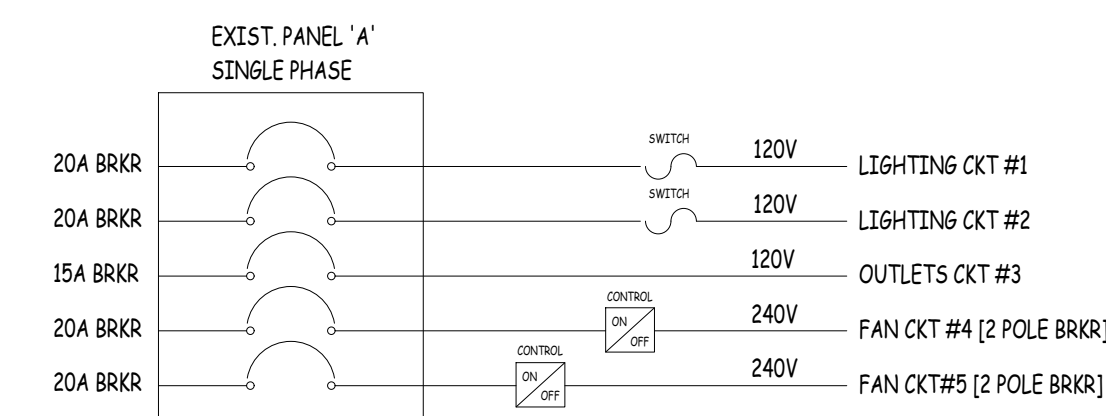
SCALE: 1/8" = 1'-0"



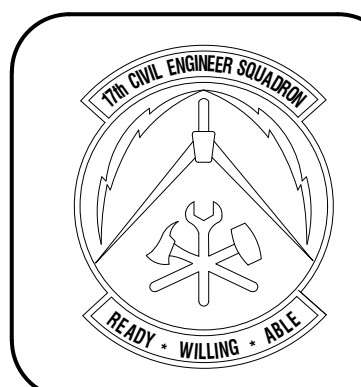
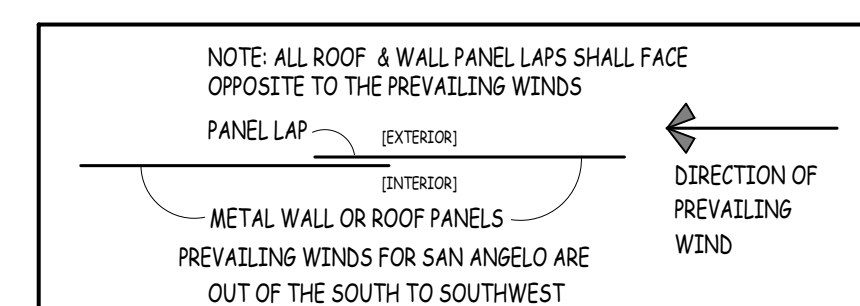
B1-C1 & B2-C2: LOCATIONS OF PORTAL FRAME

**B** Typ. Col. Line Loc.  
NOT TO SCALE

- MWD ELECTRICAL NOTES:
1. THE CONTRACTOR SHALL USE THE BREAKER SPACES IN THE EXIST. PANEL FOR THE TWO FANS.
  2. THE CONTRACTOR SHALL USE THE BREAKER SPACES IN THE EXIST. PANEL FOR THE LIGHTING AND OUTLET CIRCUITS.
  3. ALL THE OUTLETS MUST BE GROUND FAULT AND IN J-BOXES W/METAL WEATHERPROOK ENCLOSURES.
  4. THE CONDUIT FOR EACH CIRCUIT SHALL BE 1/2" EMT AND PVC FOR UNDERGROUND AND THE CABLE 12TH-HNA.
  5. PROVIDE TIMER SWITCHES FOR LIGHTS W/BUZZER.
  6. PROVIDE SURGE PROTECTION AT PANEL.



**MWD**  
**Single Line Diagram**  
NOT TO SCALE



Symbol	Description	Date	Appr

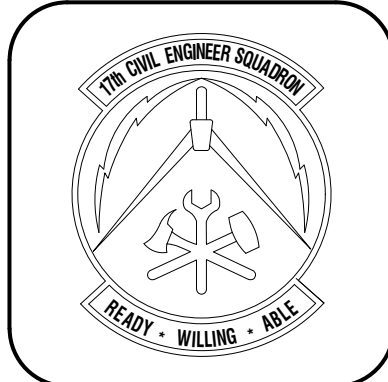
Symbol	Description	Date	Appr

Designed by:	IRASK
Drawn by:	
Reviewed by:	
Submitted by:	

PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:  
1056394  
SHEET TITLE  
FLOOR PLAN - MWD  
BASE BID  
Date:  
April 2020

SEQ.	SHEET	OF
11	A-2	26



Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

Designed by	IRASK
Drawn by	
Reviewed by	
Submitted by	

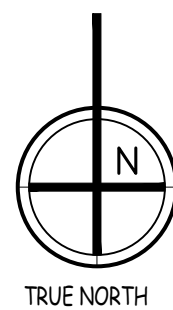
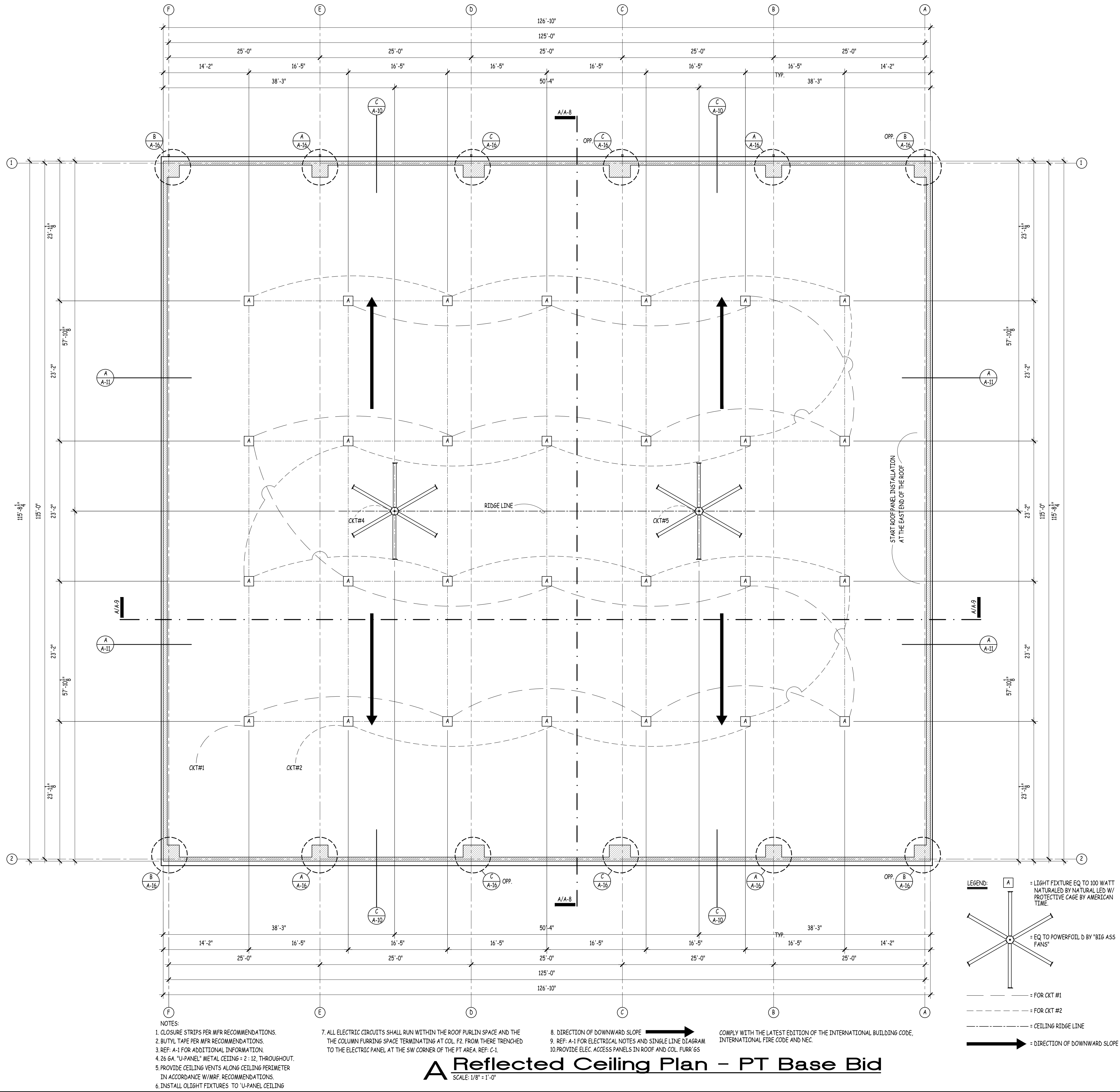
PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:  
**1056394**

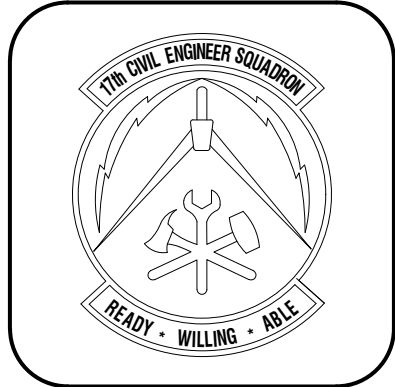
SHEET TITLE  
**REFLECTED CEILING PLAN - PT  
BASE BID**

Date:  
**April, 2020**

SEO.	SHEET	OF
<b>12</b>	<b>A-3</b>	<b>26</b>







Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

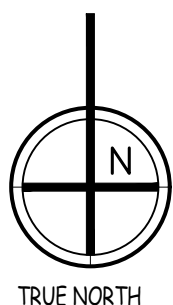
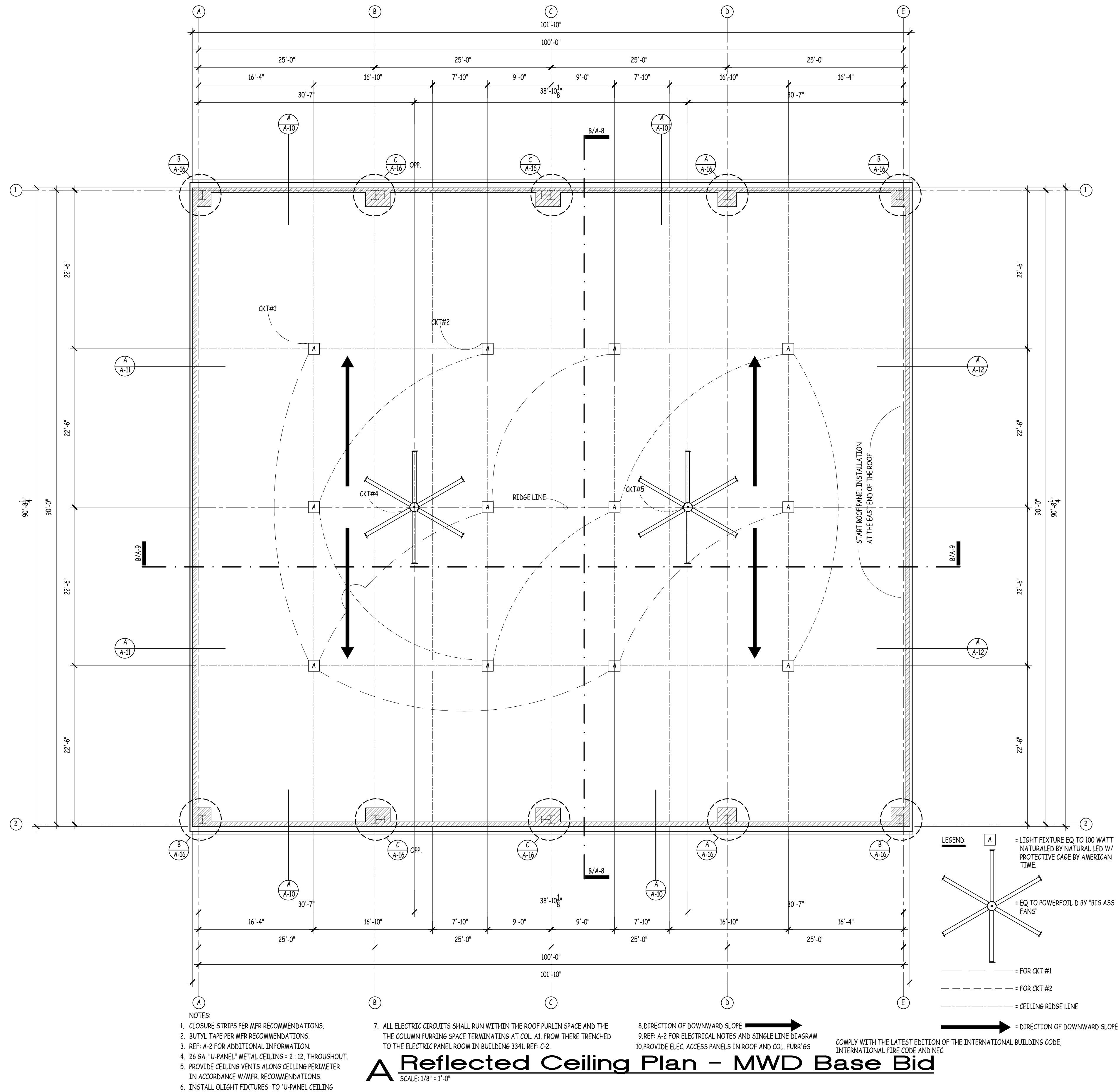
Designed by	W/ASK
Drawn by	
Reviewed by	
Submitted by	

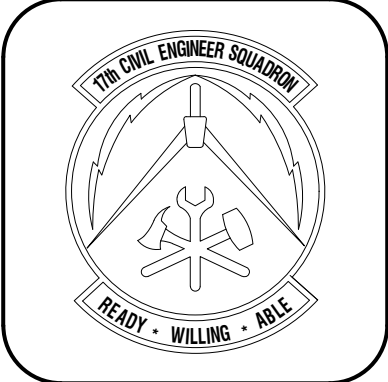
PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:	1056394
SHEET TITLE	REFLECTED CEILING PLAN - MWD BASE BID
Date:	April, 2020

SEQ.	SHEET	OF
13	A-4	26





Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

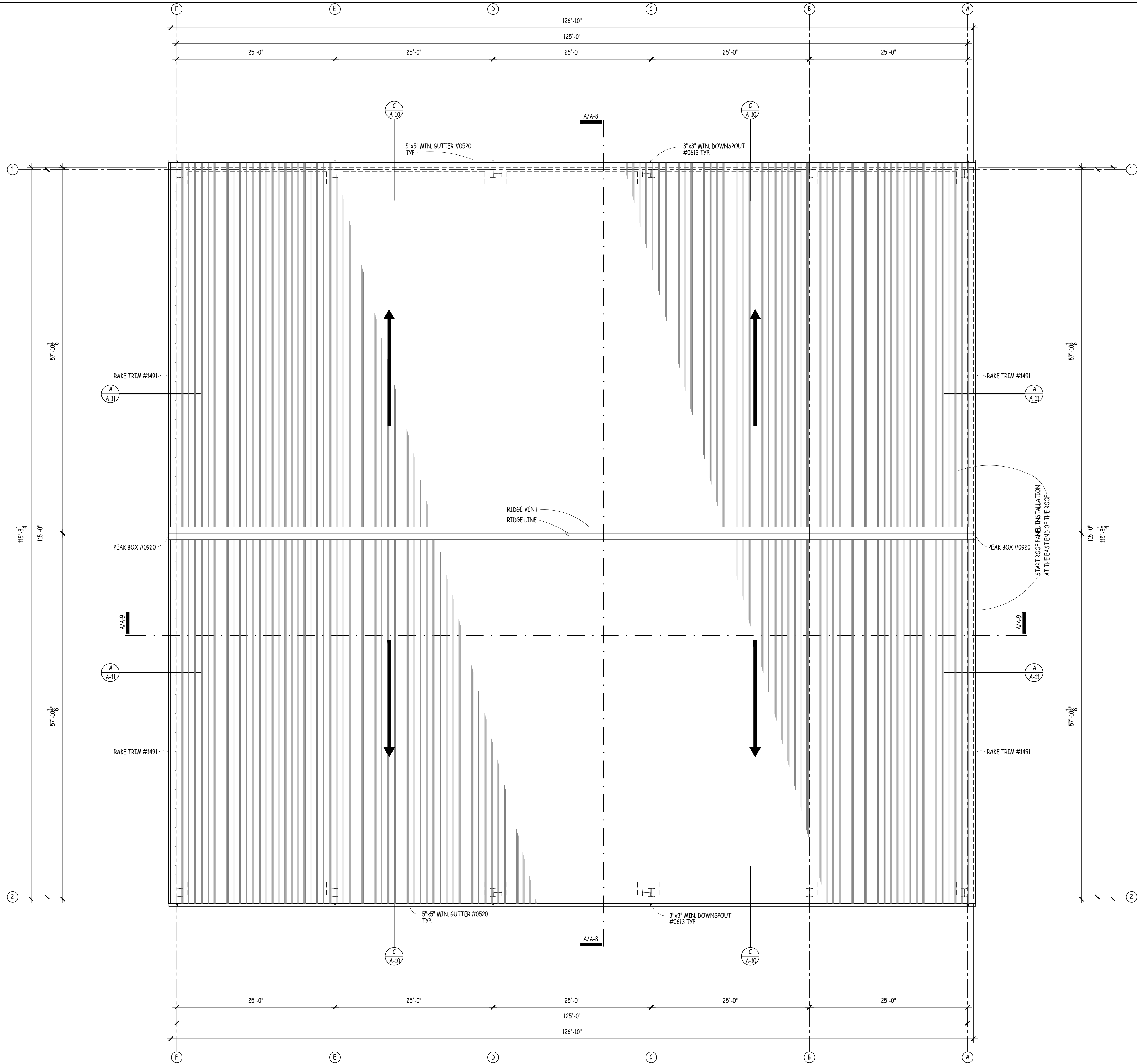
Designed by	
Drawn by	
Reviewed by	
Submitted by	

PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:	1056394
SHEET TITLE	ROOF PLAN - PT BASE BID
Date:	April, 2020

SEQ.	SHEET	OF
14	A-5	26



NOTES:  
CLOSURE STRIPS PER MFR RECOMMENDATIONS.  
BUTYL TAPE PER MFR RECOMMENDATIONS.  
REF: A-2 FOR ADDITIONAL INFORMATION.  
26 GA "R-PANEL" METAL ROOF = 2:12, THROUGHOUT.  
RIDGE VENT EQ TO COR-A VENT LOW PROFILE FLOATING  
RIDGE VENT BY RIGID GLOBAL BUILDINGS.

DIRECTION OF DOWNWARD SLOPE →

# A Roof Plan - PT Base Bid

SCALE: 1/8" = 1'-0"

COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE,  
INTERNATIONAL FIRE CODE AND NEC.

NOTE: ALL ROOF & WALL PANEL LAPS SHALL FACE  
OPPOSITE TO THE PREVAILING WINDS

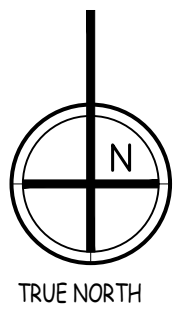
PANEL LAP

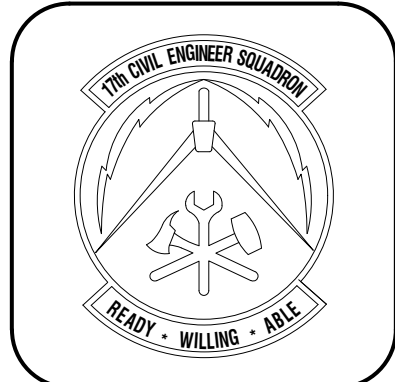
(INTERIOR)

METAL WALL OR ROOF PANELS

PREVAILING WINDS FOR SAN ANGELO ARE  
OUT OF THE SOUTH TO SOUTHWEST


← DIRECTION OF  
PREVAILING  
WIND





Symbol	Description	Date / Appr.

Symbol	Description	Date / Appr.

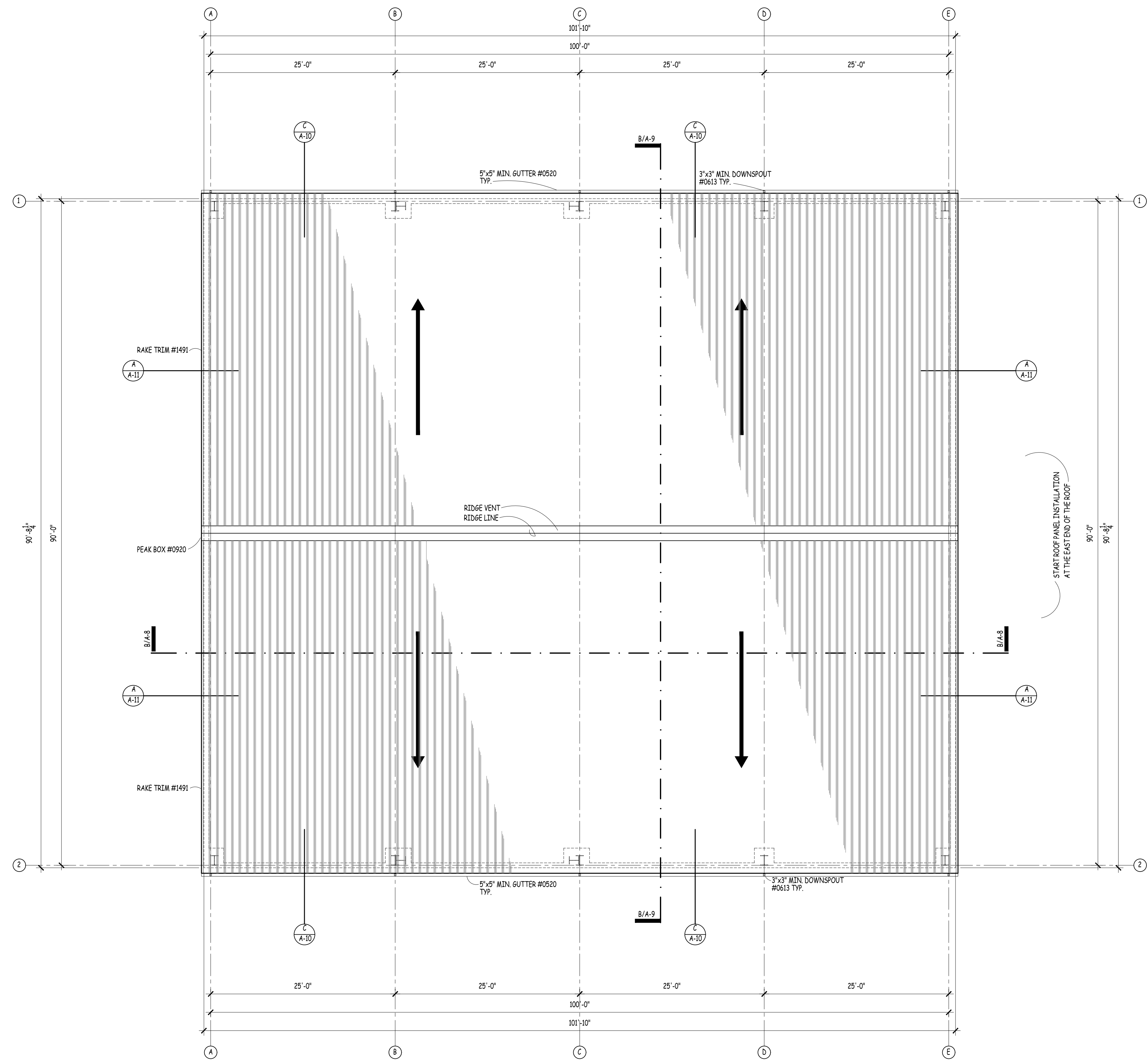
Designed by: 	Drawn by:	Reviewed by:	Submitted by:

PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:	1056394
SHEET TITLE	ROOF PLAN - MWD BASE BID
Date	April, 2020

SEQ.	SHEET	OF
15	A-6	26



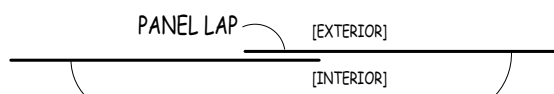
NOTES:  
CLOSURE STRIPS PER MFR RECOMMENDATIONS.  
BUTYL TAPE PER MFR RECOMMENDATIONS.  
REF. A-2 FOR ADDITIONAL INFORMATION.  
26 GA. "R-PANEL" METAL ROOF - 2 : 12, THROUGHOUT.  
RIDGE VENT EQ TO COR-A VENT LOW PROFILE FLOATING  
RIDGE VENT BY RIGID GLOBAL BUILDINGS.

DIRECTION OF DOWNWARD SLOPE →

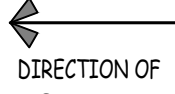
COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE,  
INTERNATIONAL FIRE CODE AND NEC.

**A Roof Plan - MWD Base Bid**  
SCALE: 1/8" = 1'-0"

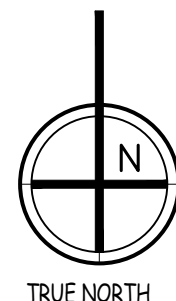
NOTE: ALL ROOF & WALL PANEL LAPS SHALL FACE  
OPPOSITE TO THE PREVAILING WINDS



PANEL LAP (EXTERIOR)  
(INTERIOR)  
METAL WALL OR ROOF PANELS  
PREVAILING WINDS FOR SAN ANGELO ARE  
OUT OF THE SOUTH TO SOUTHWEST




← DIRECTION OF  
PREVAILING  
WIND





Symbol	Description	Date	Appr

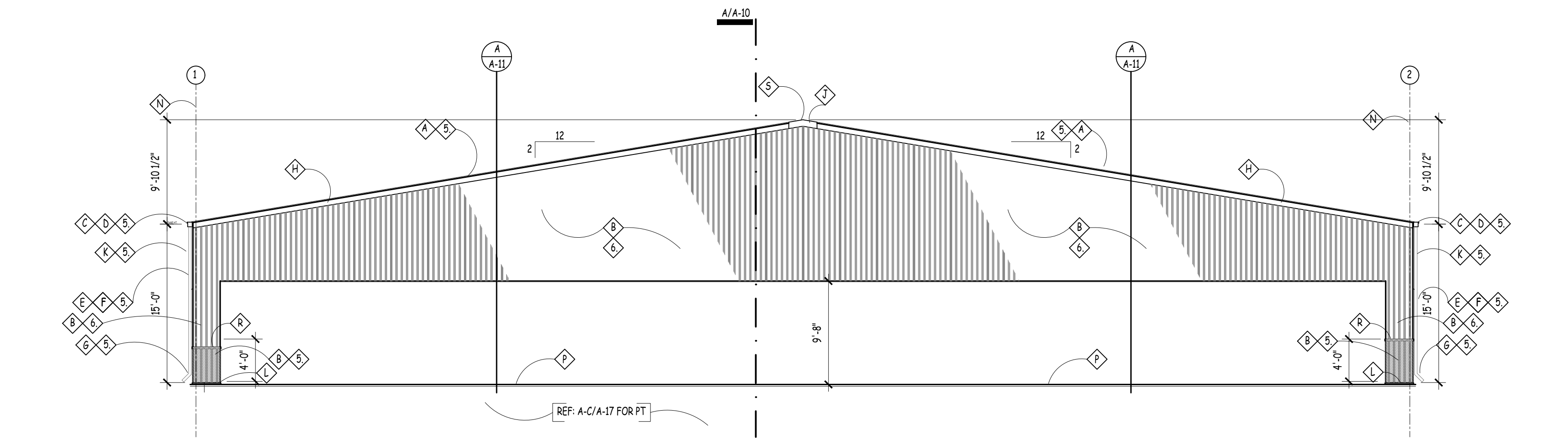
Symbol	Description	Date	Appr

Designed by: 	Drawn by:	Reviewed by:	Submitted by:

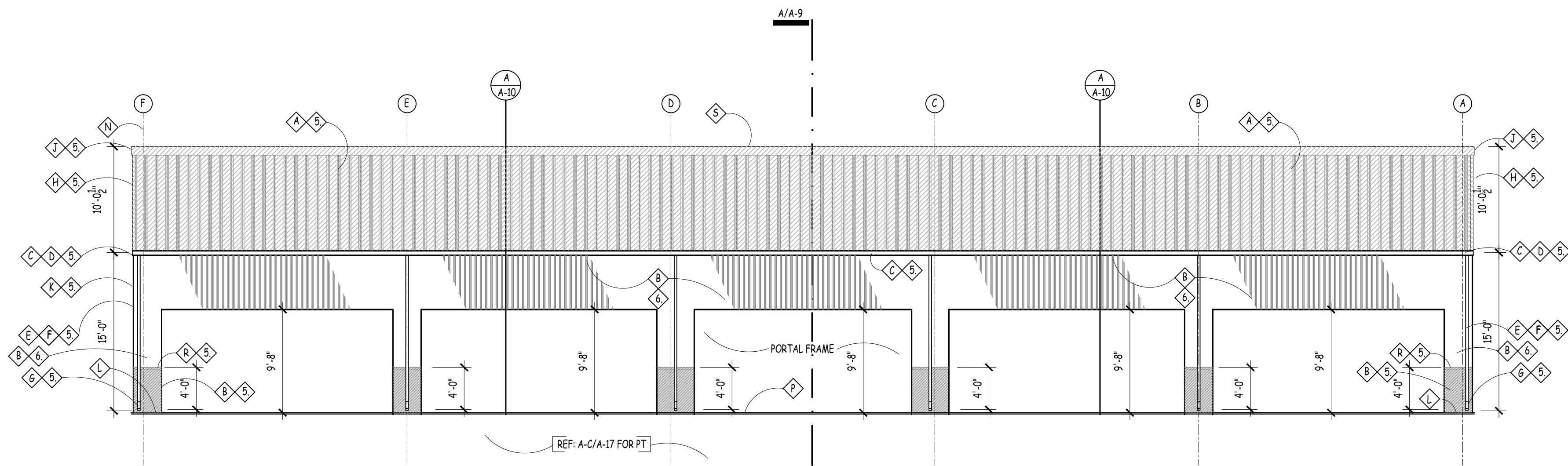
PROJECT TITLE
CANOPIES PT and MWD 17th TRAINING WING GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:
1056394
SHEET TITLE
BUILDING ELEVATIONS BASE BID
Date:
April, 2020

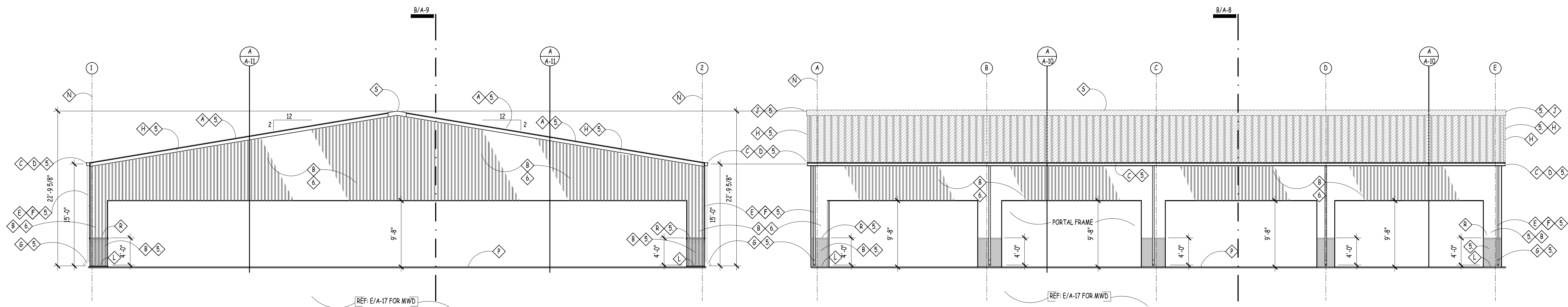
SEQ.	SHEET	OF
16	A-7	26



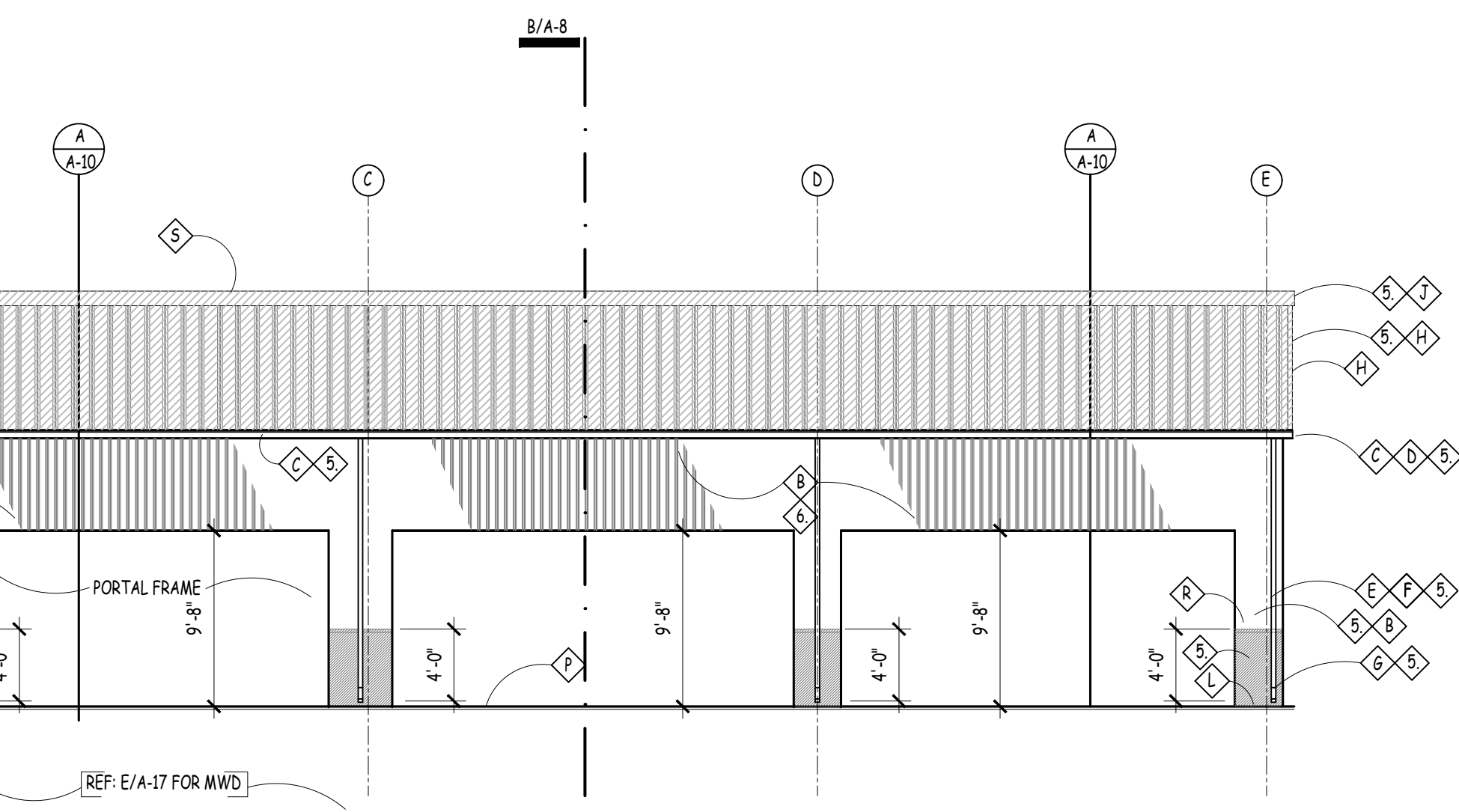
Opp Elev - Similar  
**A Bldg. Elev. - PT East Base Bid**  
SCALE: 1/4" = 1'-0"




Opp Elev - Similar  
**B Bldg. Elev. - PT South Base Bid**  
SCALE: 1/4" = 1'-0"




Opp Elev - Similar  
**C Bldg. Elev. - MWD East Base Bid**  
SCALE: 1/4" = 1'-0"




Opp Elev - Similar  
**D Bldg. Elev. - MWD South Base Bid**  
SCALE: 1/4" = 1'-0"

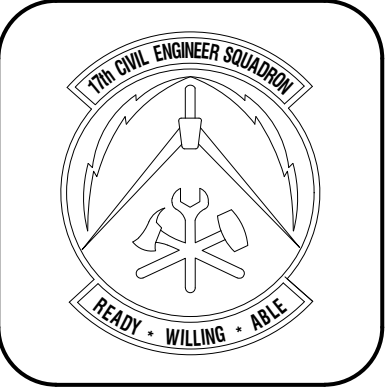
- ITEM: 
- A ROOF PANELS: "R-PANEL" 26 GA. EQUAL TO MUELLER INC.
  - B WALL PANELS: "U-PANEL" 26 GA. EQUAL TO MUELLER INC.
  - C GUTTER: "0520" 26 GA. EQUAL TO MUELLER INC.
  - D GUTTER STRAP: "1000" 26 GA. EQUAL TO MUELLER INC.
  - E DOWNSPOUT: "0613" 26 GA. EQUAL TO MUELLER INC.
  - F DOWNSPOUT STRAP: "1010" 26 GA. EQUAL TO MUELLER INC.
  - G BOTTOM KICK-OUT: "0633" 26 GA. EQUAL TO MUELLER INC.
  - H RAKE TRIM: "1480" 26 GA. EQUAL TO MUELLER INC.
  - J PEAK BOX: "0920" 26 GA. EQUAL TO MUELLER INC.
  - K OUTSIDE CORNER: "0152" 26 GA. EQUAL TO MUELLER INC.
  - L DRIP EDGE: "0342" 26 GA. EQUAL TO MUELLER INC.
  - M RAKE END CAP: "1122" 26 GA. EQUAL TO MUELLER INC.
  - N COLUMN LINE, TYPICAL
  - P FINISH SURFACE ELEVATION
  - Q FINISH GRADE
  - R TRANSITION TRIM
  - S ROOF VENT
- NOTES:
- 1. SCREW HEAD COLOR SHALL MATCH PANEL COLOR
  - 2. ALL MANUFACTURER PROVIDED TRIM SHALL MATCH MANSARD BROWN
  - 3. ALL FABRICATED TRIM SHALL BE PAINTED COLOR TO MATCH MANSARD BROWN
  - 4. PEB AND PANELS SHALL BE FROM THE SAME MANUFACTURER
  - 5. COLOR TO MATCH MUELLER MANSARD BROWN
  - 6. COLOR TO MATCH MUELLER TAN.

NOTE: ALL ROOF & WALL PANEL LAPS SHALL FACE OPPOSITE TO THE PREVAILING WINDS

PANEL LAP  (EXTERIOR) (INTERIOR)

METAL WALL OR ROOF PANELS  
PREVAILING WINDS FOR SAN ANGELO ARE OUT OF THE SOUTH TO SOUTHWEST

 DIRECTION OF PREVAILING WIND



Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Designed by	Drawn by	Reviewed by	Submitted by

PROJECT TITLE

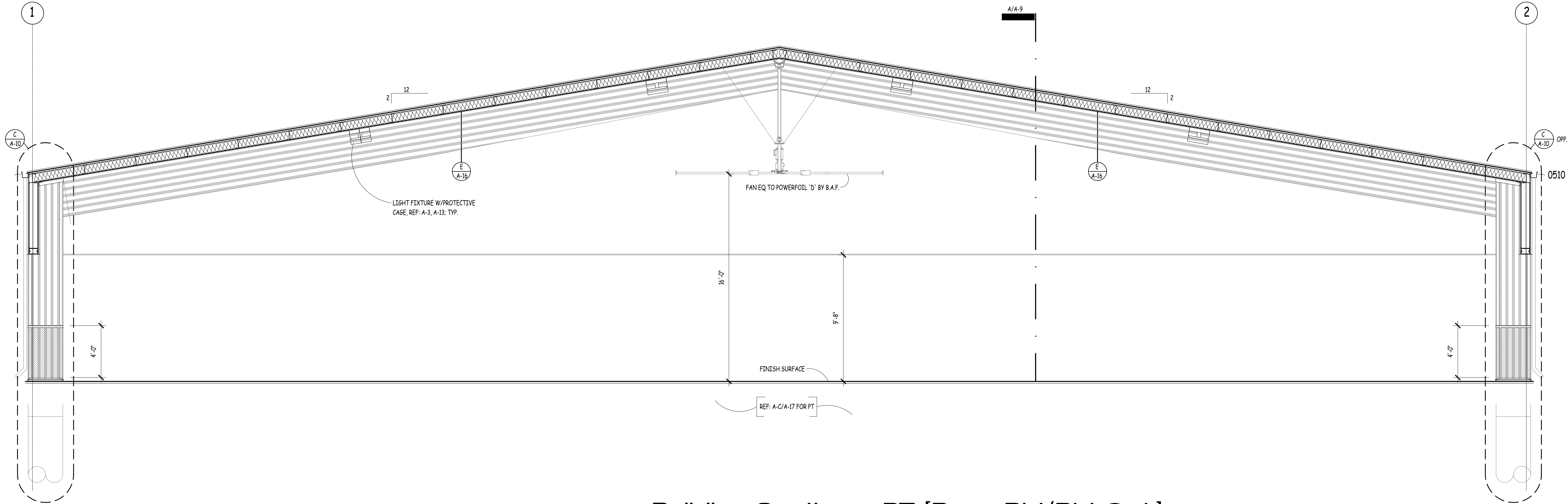
CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:  
1056394

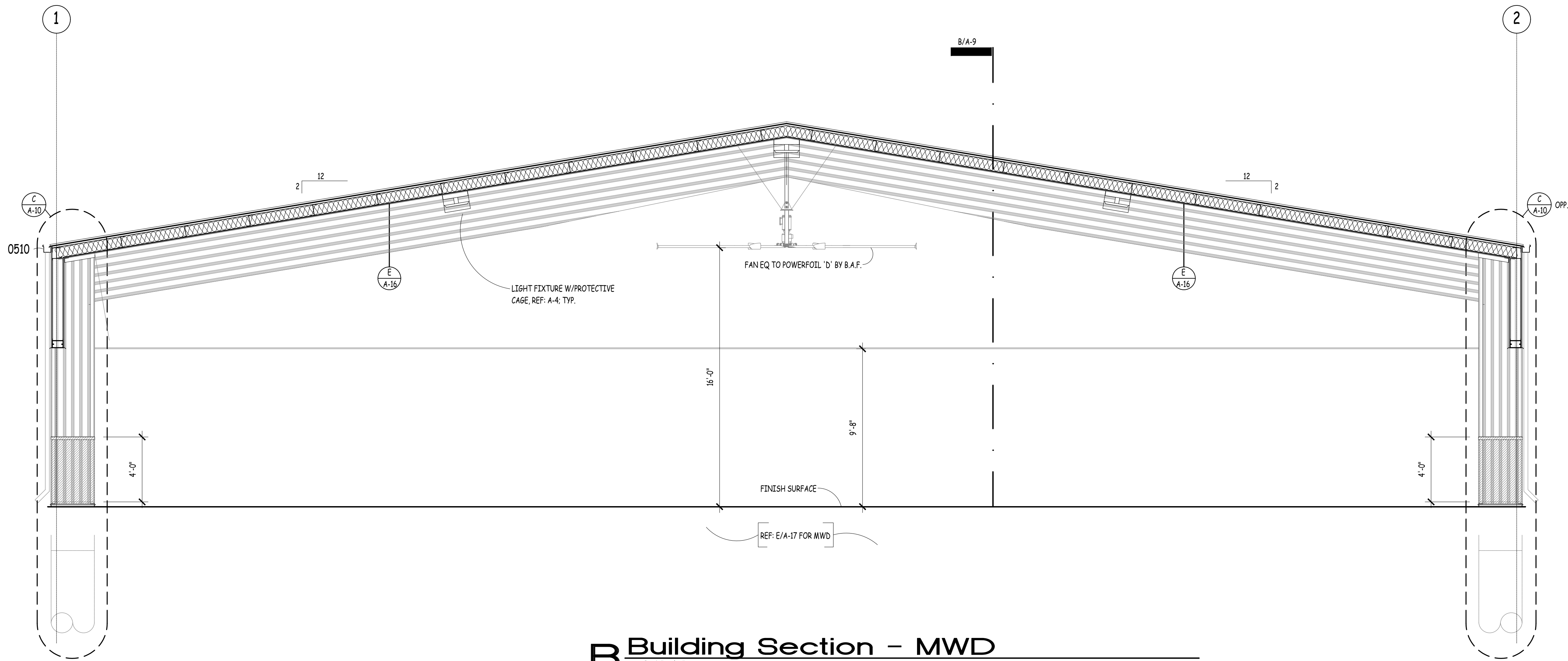
SHEET TITLE  
BUILDING SECTIONS

Date:  
April, 2020

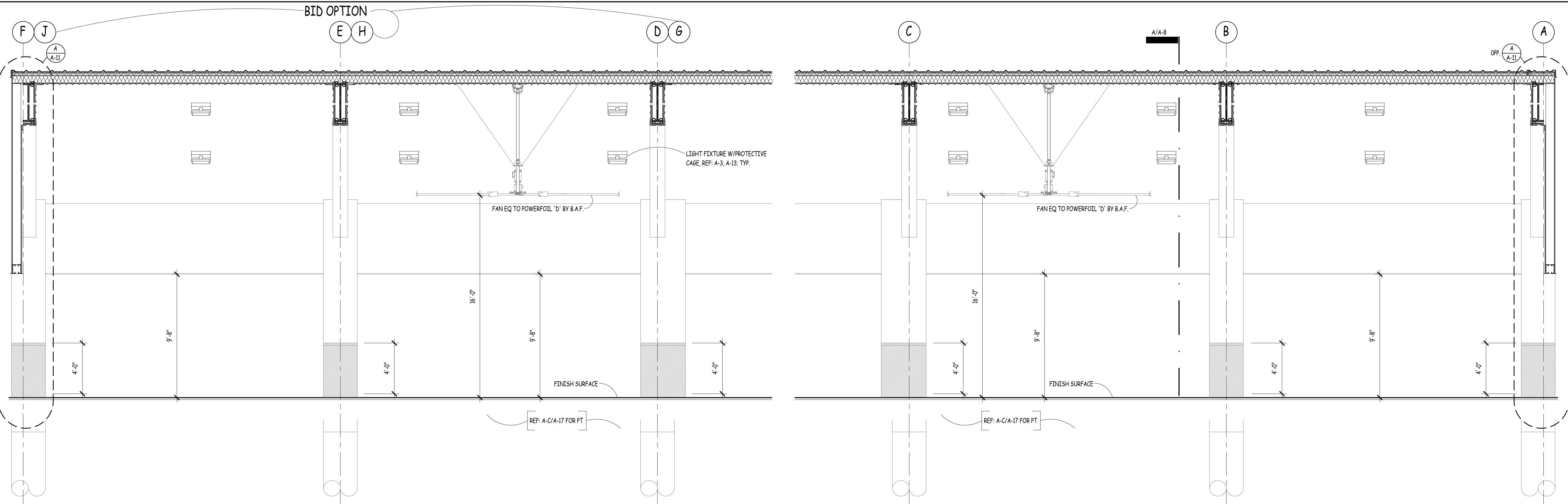
SEQ.	SHEET	OF
17	A-8	26



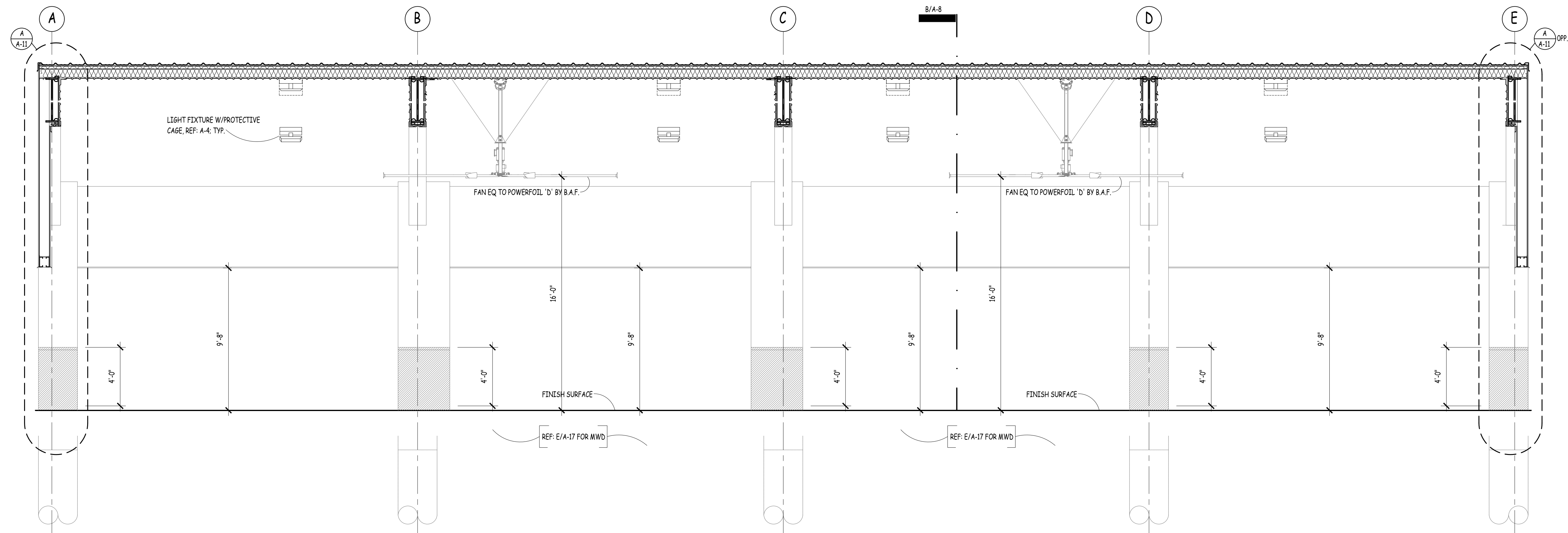
**A Building Section - PT [Base Bid/Bid Opt.]**  
SCALE: 1/4" = 1'-0"



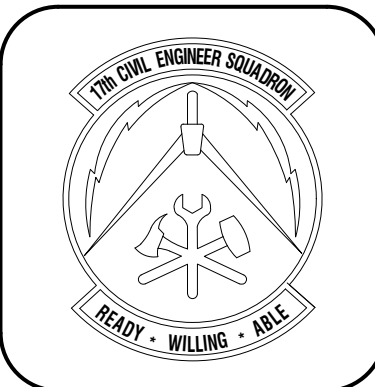
**B Building Section - MWD**  
SCALE: 1/4" = 1'-0"



**A** Building Section - PT [Base Bid/Bid Opt.]  
SCALE: 1/4" = 1'-0"



**B** Building Section - MWD  
SCALE: 1/4" = 1'-0"



Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

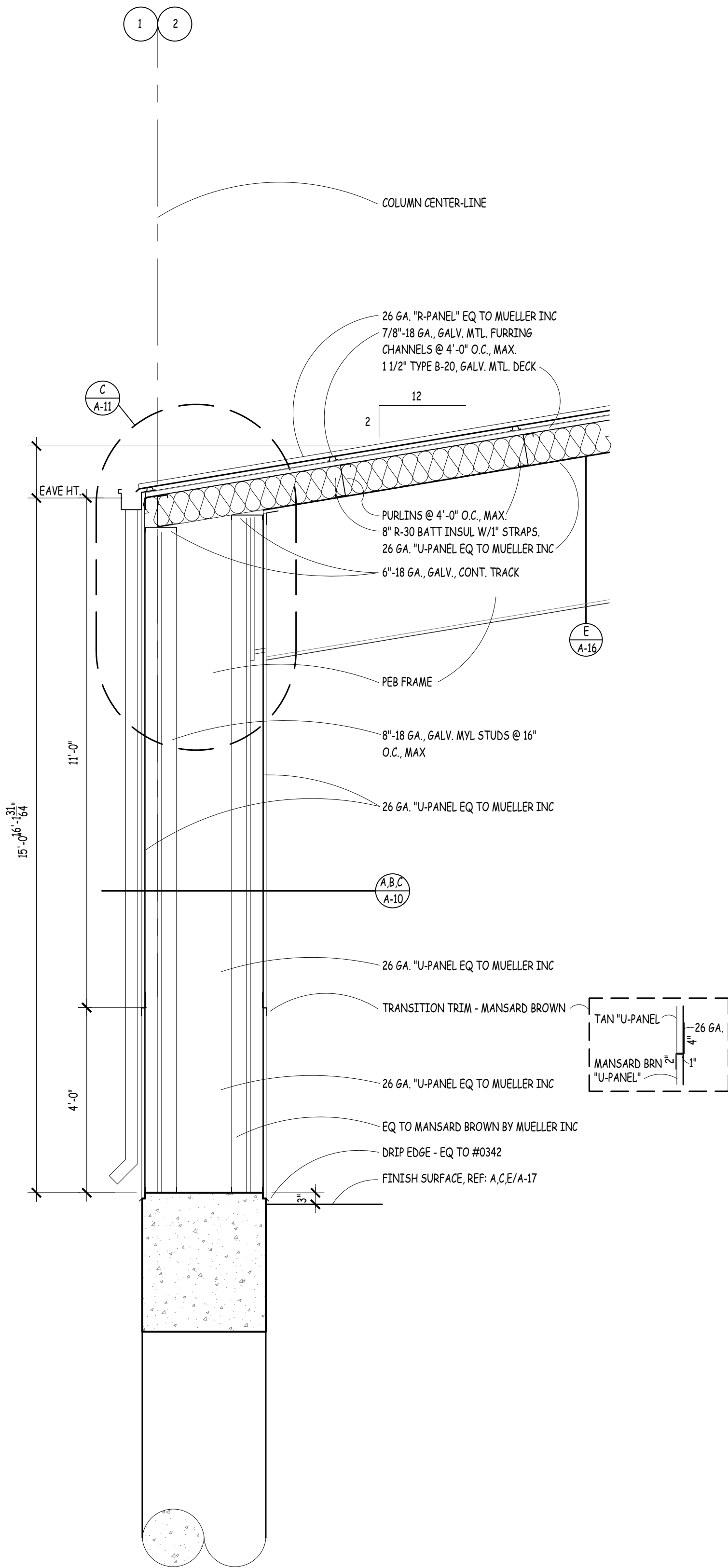
Designed by	W. RASK
Drawn by	
Reviewed by	
Submitted by	

PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number:	1056394
SHEET TITLE	BUILDING SECTIONS
Date:	April, 2020

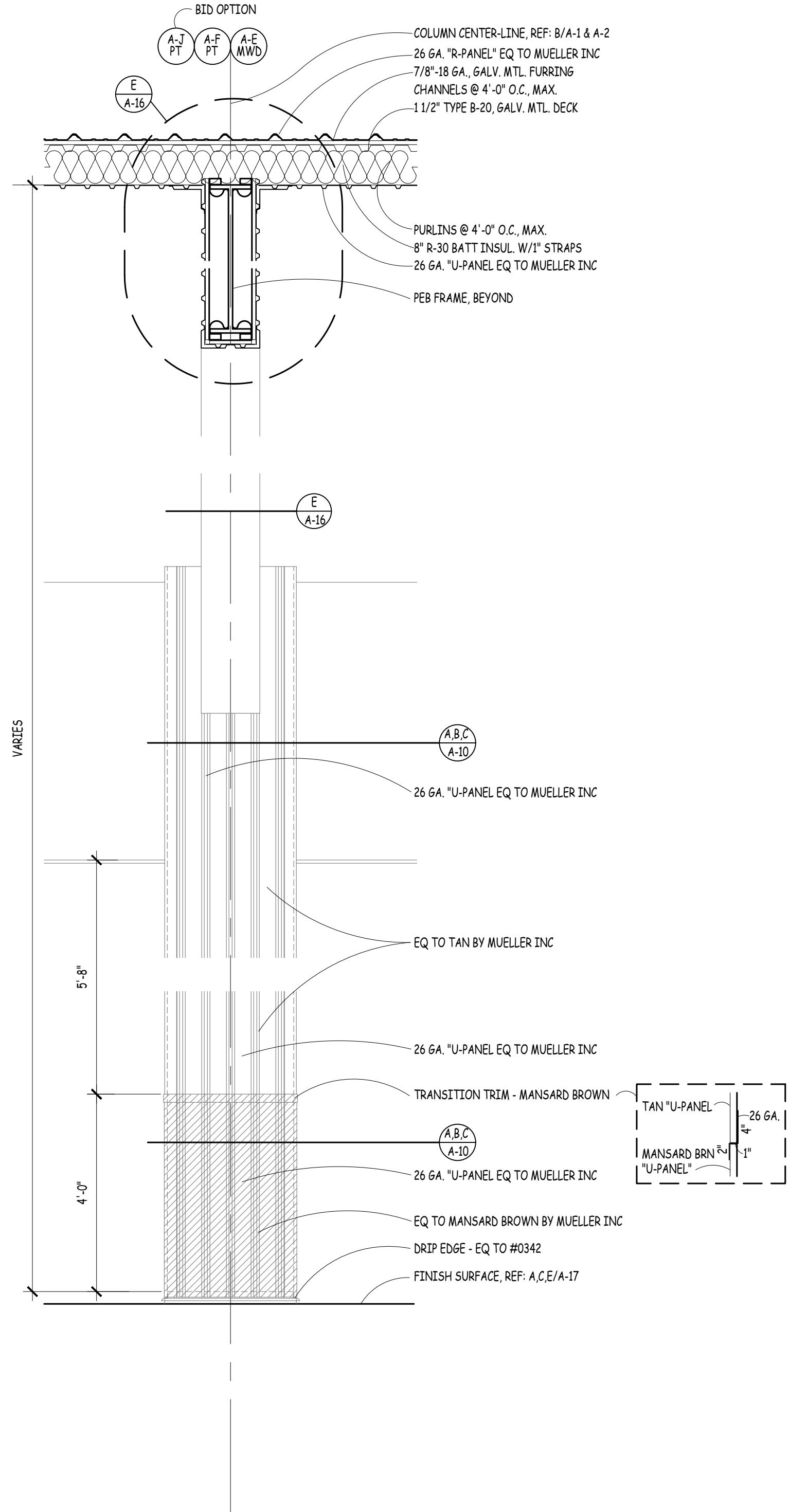
SEQ.	SHEET	OF
18	A-9	26





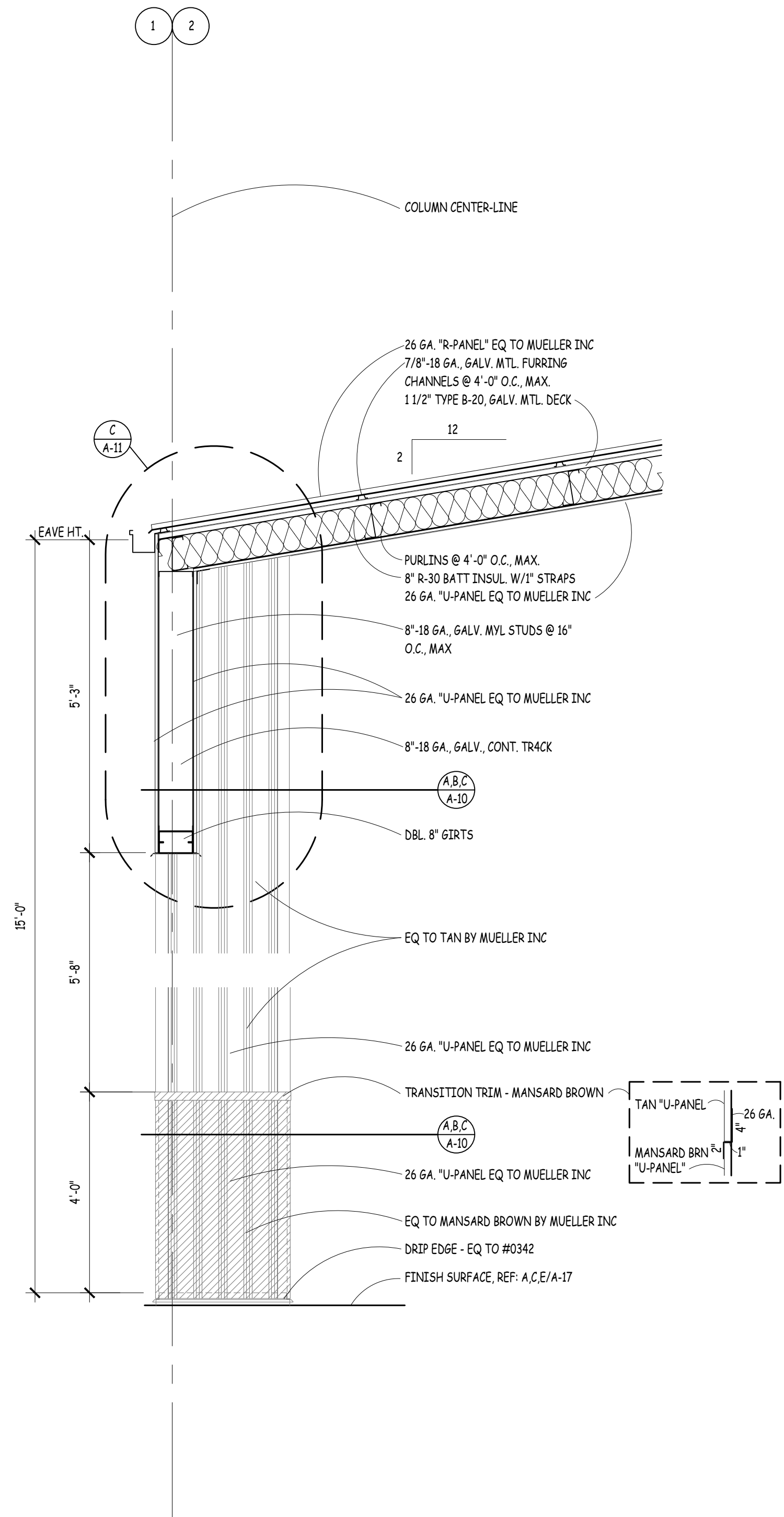
PROVIDE CEILING VENTS ALONG CEILING PERIMETER  
IN ACCORDANCE W/MRF. RECOMMENDATIONS.

**A.W. Scn.**  
SCALE: 1/4" = 1'-0"



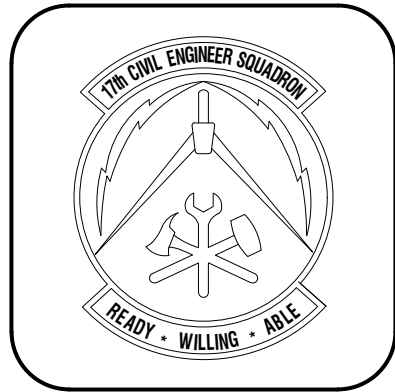
PROVIDE CEILING VENTS ALONG CEILING PERIMETER  
IN ACCORDANCE W/MRF. RECOMMENDATIONS.

**B.W. Scn.**  
SCALE: 1/4" = 1'-0"



PROVIDE CEILING VENTS ALONG CEILING PERIMETER  
IN ACCORDANCE W/MRF. RECOMMENDATIONS.

**C.W. Scn.**  
SCALE: 1/4" = 1'-0"



Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.


Designed by: <b>W. RASK</b>	Drawn by:	Reviewed by:	Submitted by:
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PROJECT TITLE  
**CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS**

Project Number: <b>1056394</b>
SHEET TITLE <b>WALL SECTIONS</b>
Date: <b>April 2020</b>

SEQ.	SHEET	OF
<b>19</b>	<b>A-10</b>	<b>26</b>

[illegible][illegible]

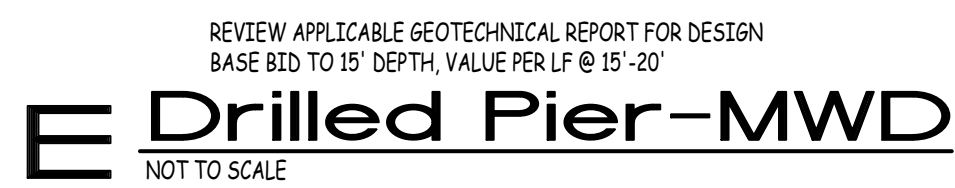
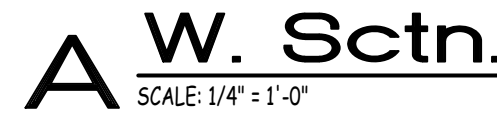
Designed by:  RASK
Drawn by:
Reviewed by:
Submitted by:

PROJECT TITLE

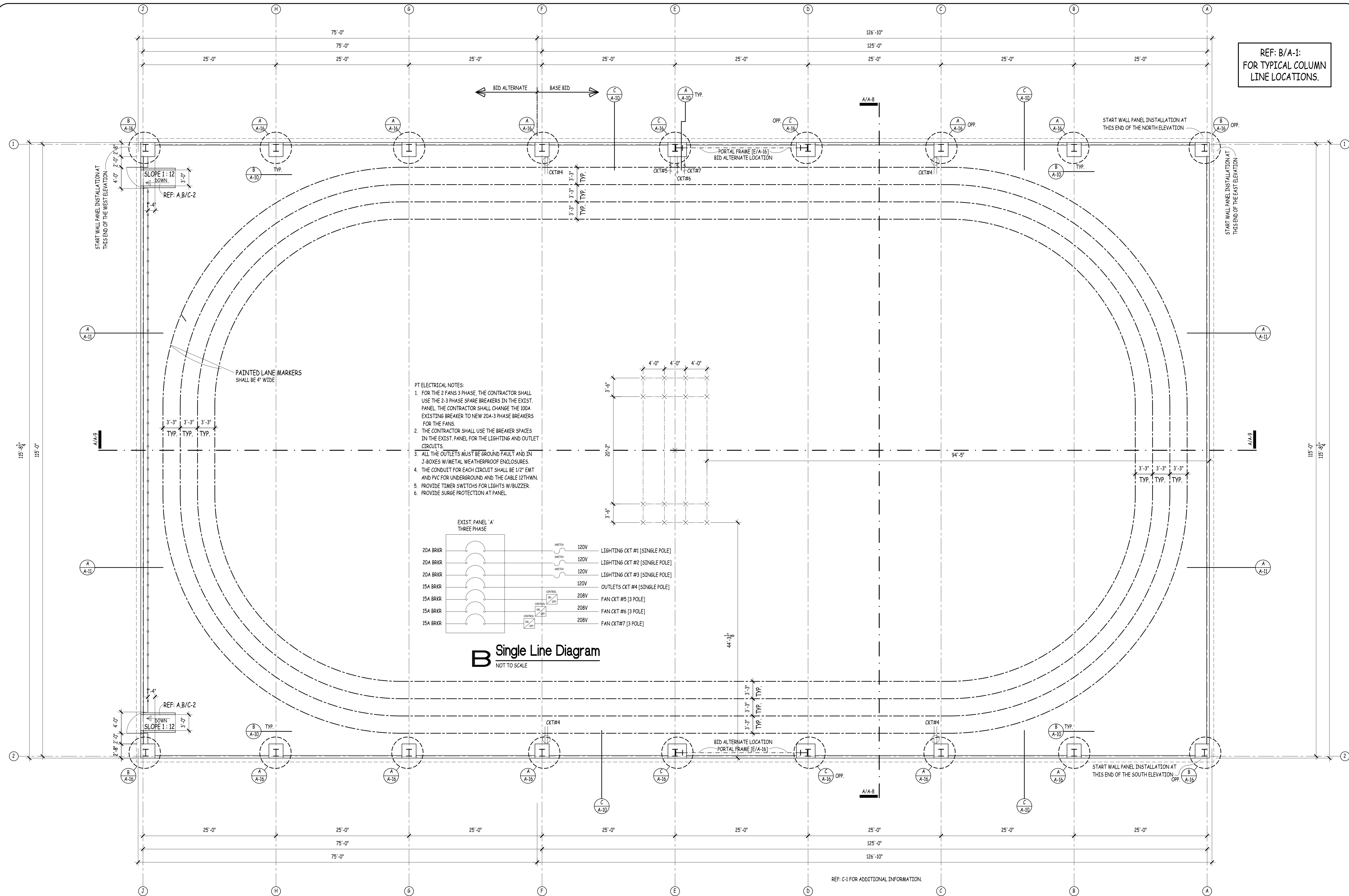
CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number: 1056394
SHEET TITLE WALL SECTION, DETAILS. PIERS
Date: April, 2020

SEQ.	SHEET	OF
20	A-11	26







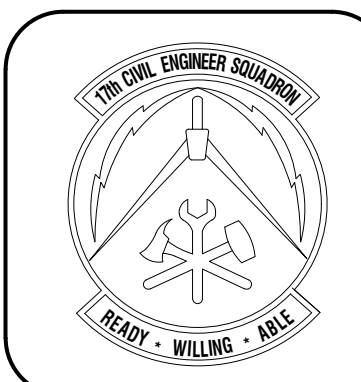
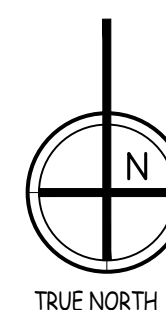
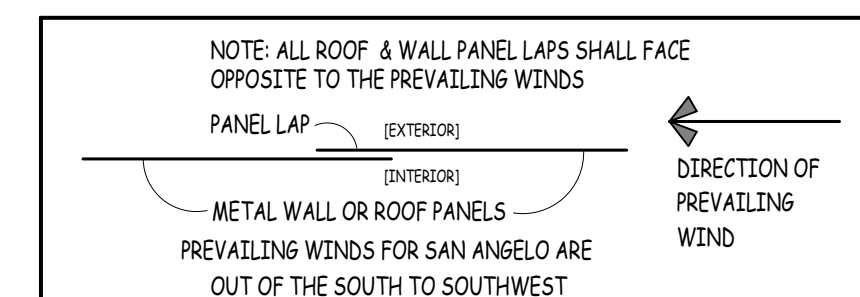
REF: C-3 FOR ADDITIONAL INFORMATION.

ALL ELECTRIC CIRCUITS SHALL RUN WITHIN THE ROOF PURLIN SPACE AND THE THE COLUMN FURRING SPACE TERMINATING AT COL. A-1 FROM THERE TRENCHED TO THE ELECTRIC PANEL AT THE SW CORNER OF THE PT AREA. REF: C-1. COORDINATE RE-INSTALL LOCATION OF ALPHA WARRIOR UNIT WITH THE GOVERNMENT.

COMPLY WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND NEC.

## A Floor Plan - PT: Bid Opt.

SCALE: 1/8" = 1'-0"



Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Designed by:	W. FASK
Drawn by:	
Reviewed by:	
Submitted by:	

PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

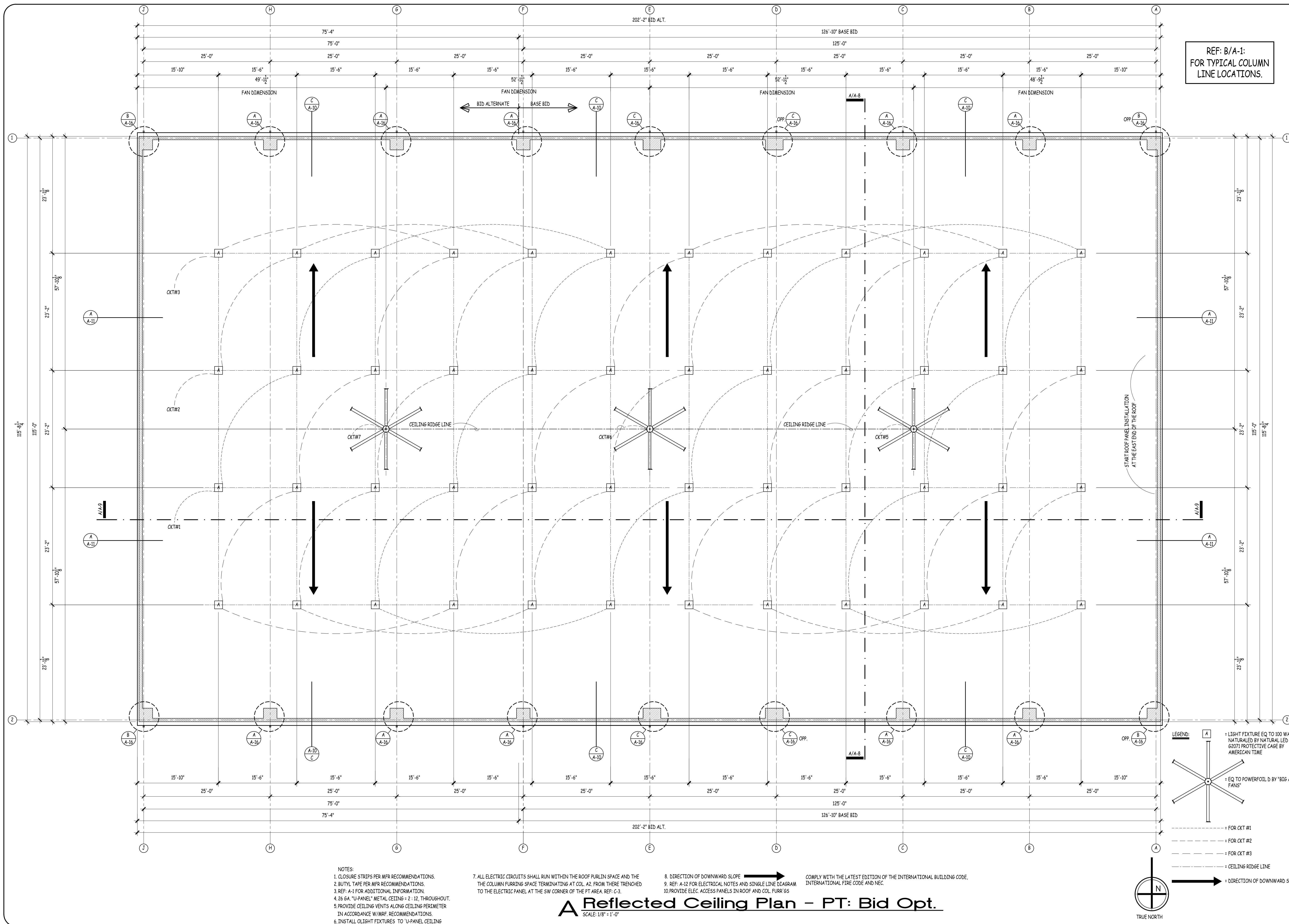
Project Number:  
1056394

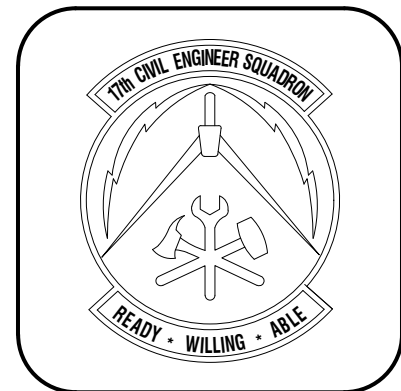
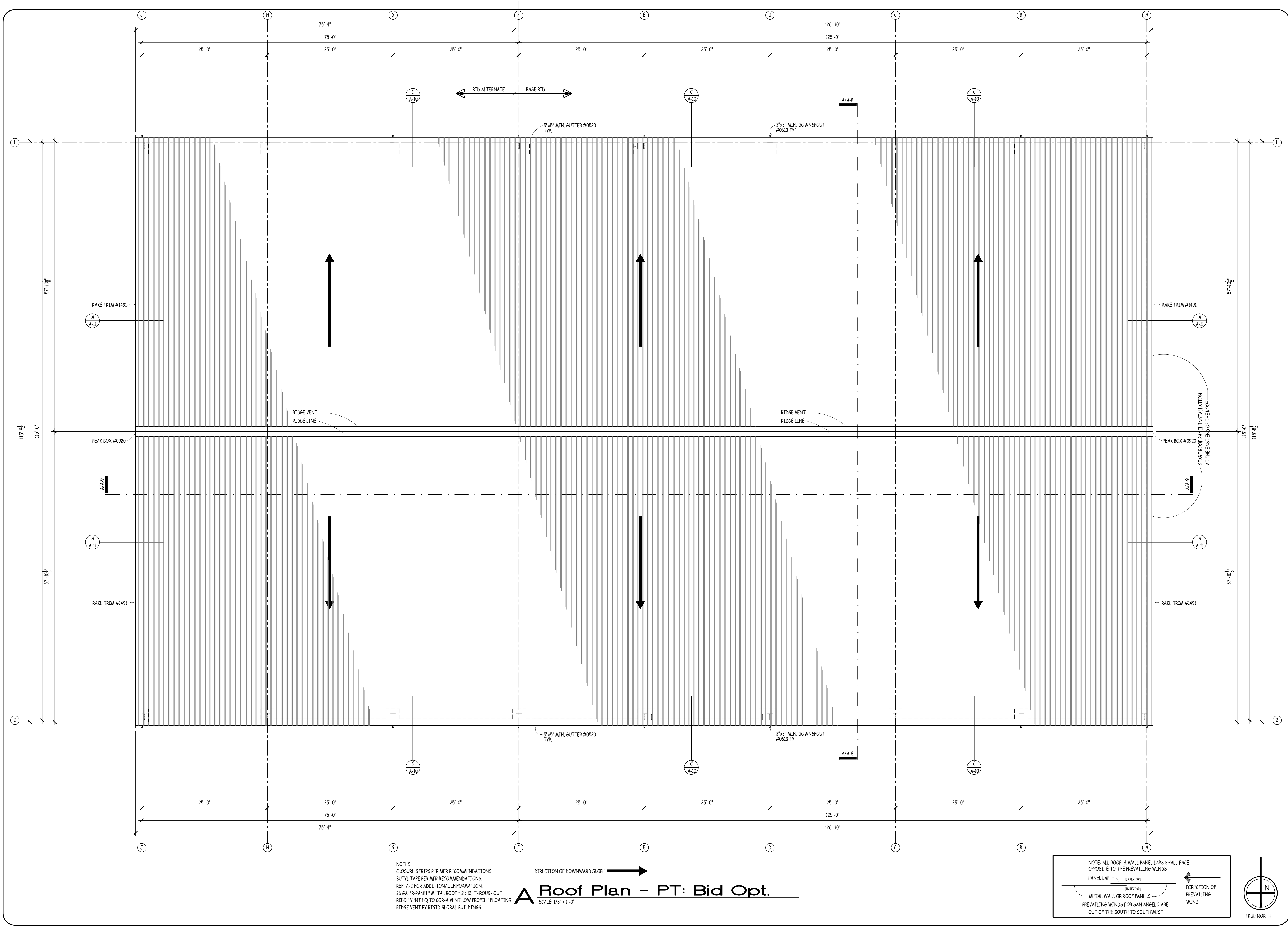
SHEET TITLE  
FLOOR PLAN - PT: BID OPTION

Date:  
April, 2020

SEQ. SHEET OF

21 A-12 26





Symbol	Description	Date	Appr

Symbol	Description	Date	Appr

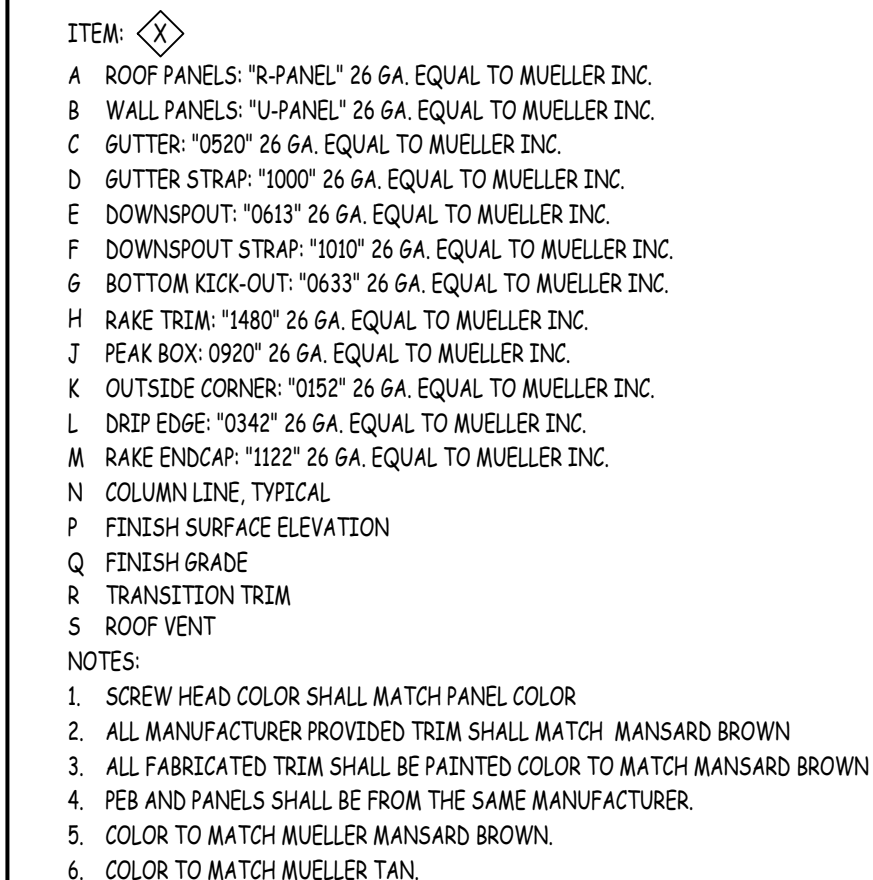
Designed by	Drawn by	Reviewed by	Submitted by

PROJECT TITLE

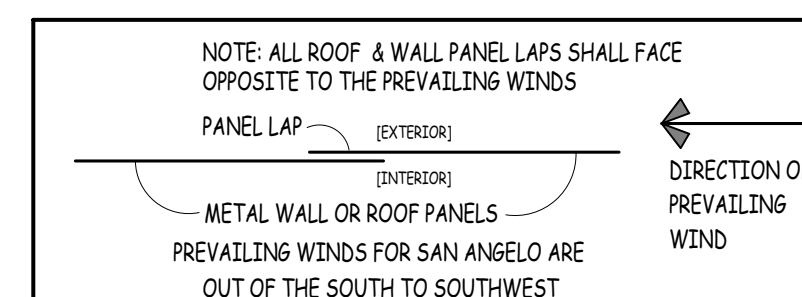
CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS


Project Number:	1056394
SHEET TITLE	ROOF PLAN - PT BID OPTION
Date:	April, 2020

SEQ.	SHEET	OF
23	A-14	26



Architectural section drawing showing a comparison between a 'BASE BID' and a 'BID ALTERNATE' for a building facade. The drawing includes structural elements like columns (A-J), beams, and various wall and floor sections. Dimensions are provided for heights and widths. A reference note at the bottom states 'REF: A-C/A-16 FOR PT: BID ALT.'

[illegible][illegible]

Designed by: 
Drawn by:
Reviewed by:
Submitted by:

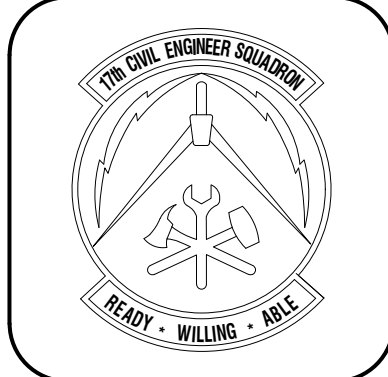
PROJECT TITLE

CANOPIES  
PT and MWD  
17th TRAINING WING  
GOODFELLOW AIR FORCE BASE, TEXAS

Project Number:	1056394
SHEET TITLE	BUILDING ELEVATIONS BID OPTION
Date:	April, 2020

SEQ.	SHEET	OF
24	A-15	26





Symbol	Description	Date	Appr.

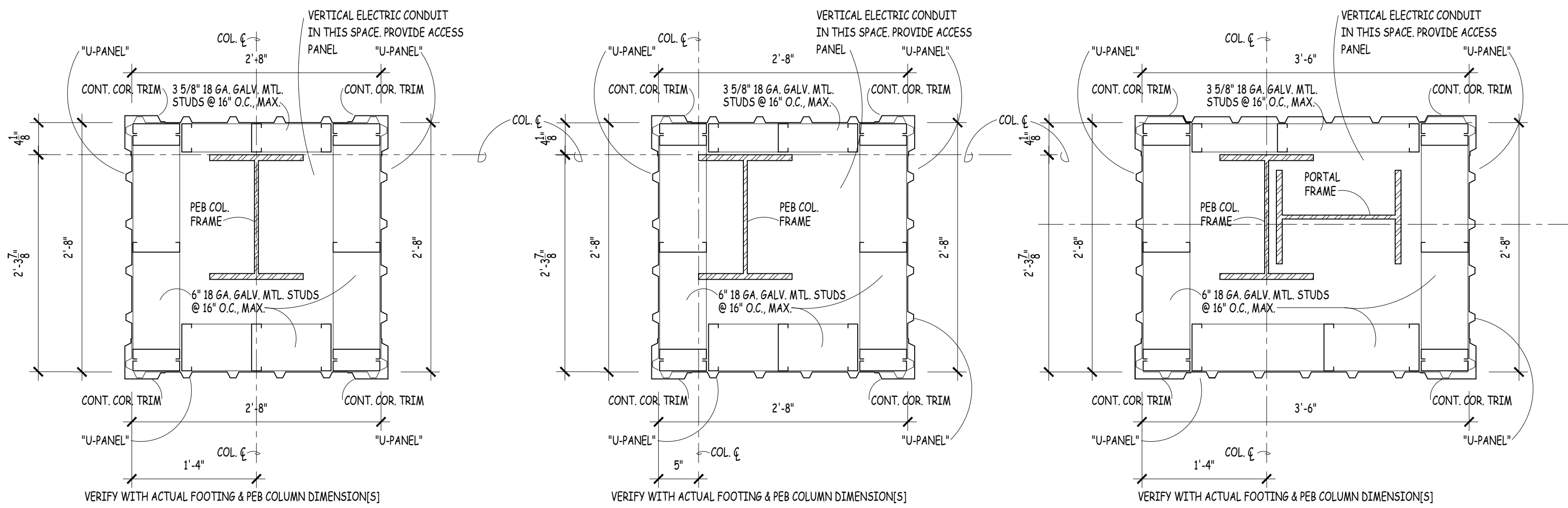
Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

PROJECT TITLE
CANOPIES PT and MWD 17th TRAINING WING GOODFELLOW AIR FORCE BASE, TEXAS

Project Number: 1056394
SHEET TITLE MISCELLANEOUS DETAILS
Date: April, 2020

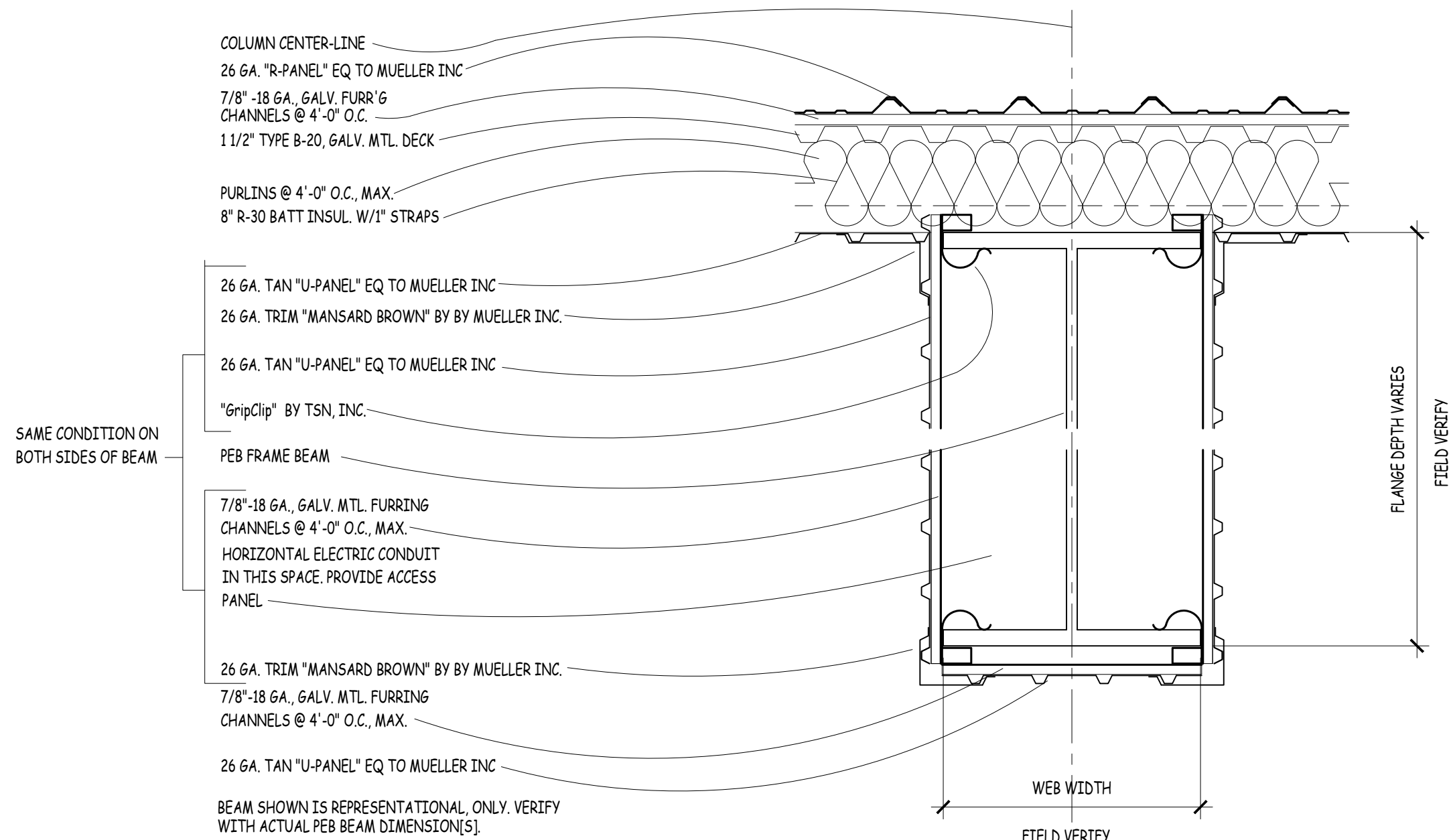
SEQ.	SHEET	OF
25	A-16	26



**A** Col. Furr'g

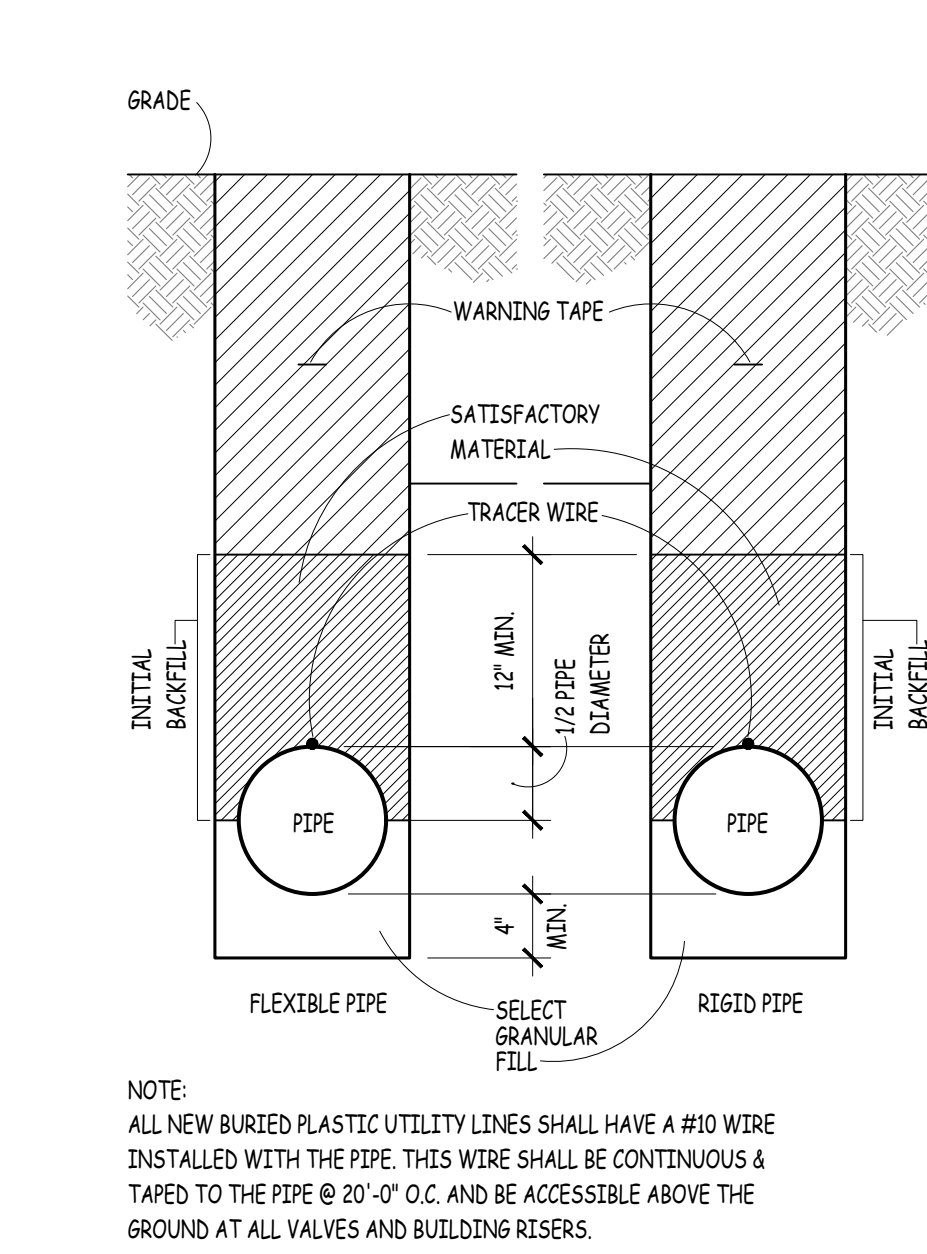
**B** Col. Furr'g

**C** Col. Furr'g



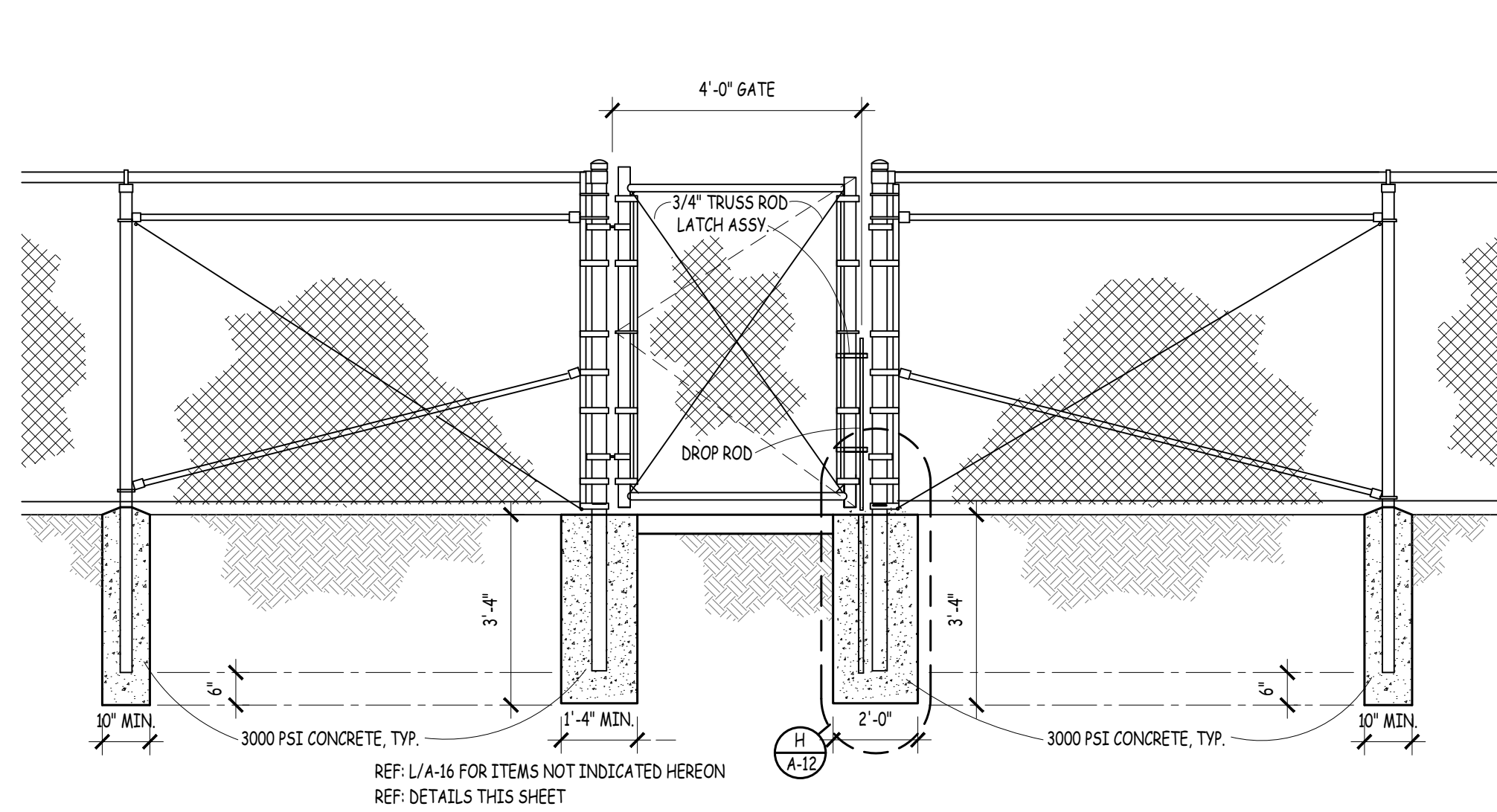
**E** Col. Furr'g

SCALE: 1" = 1'-0"



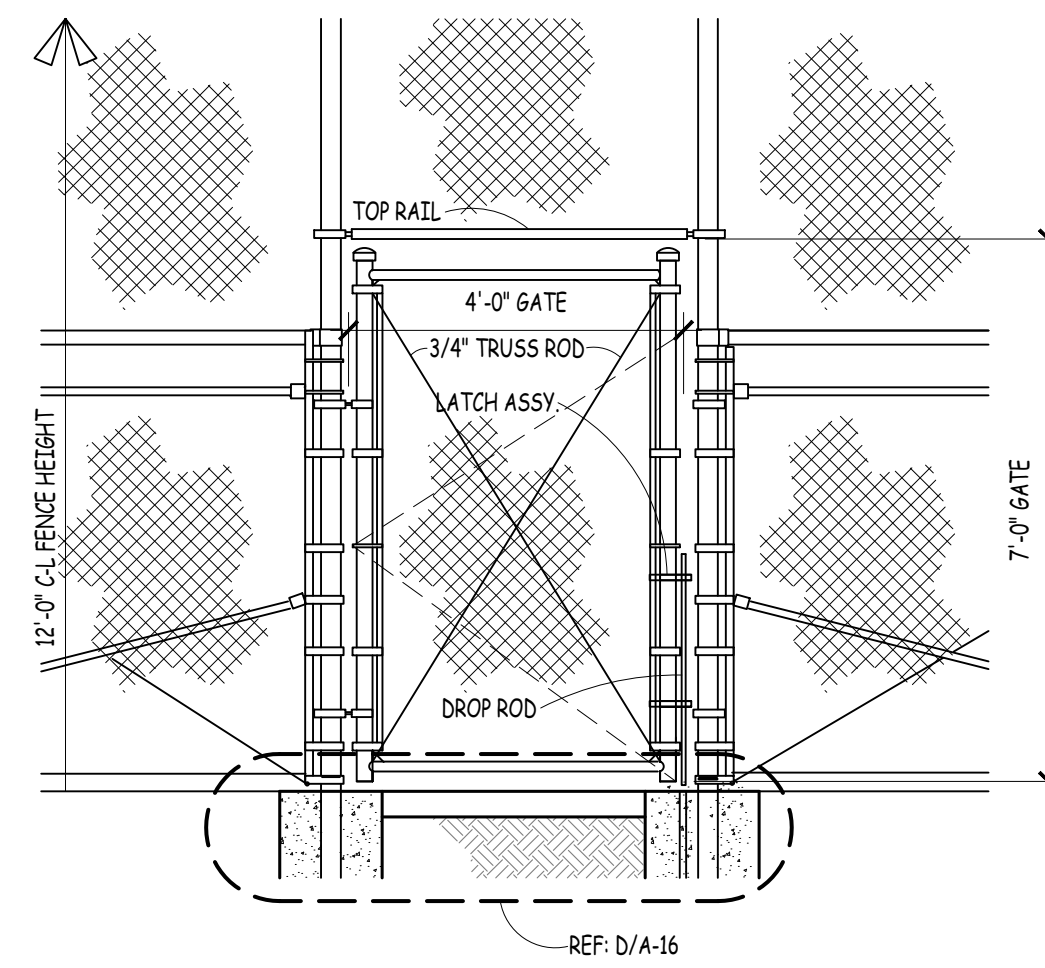
**F** Typ. Utility Trench

NOT TO SCALE



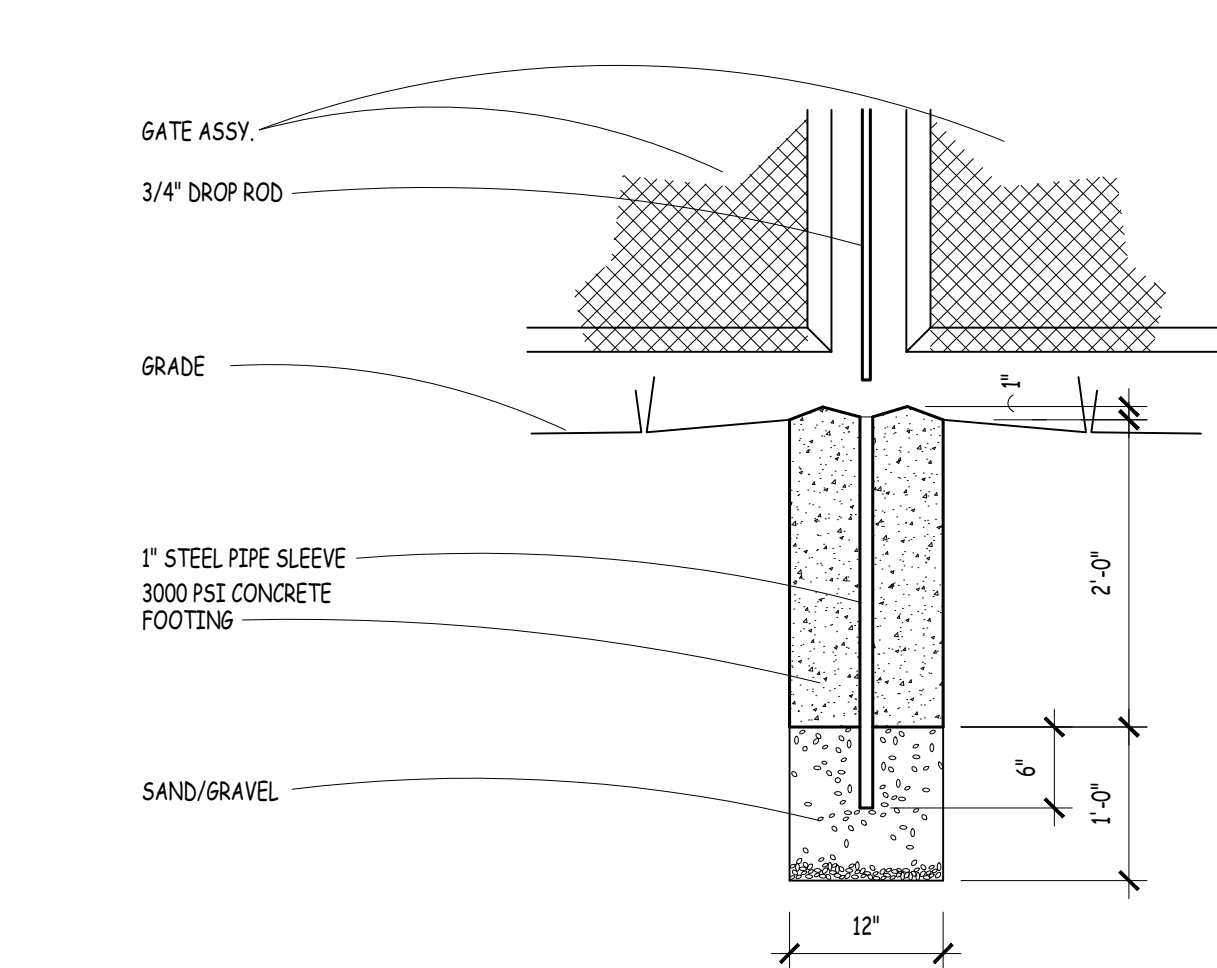
**D** Gate Elevation

NOT TO SCALE



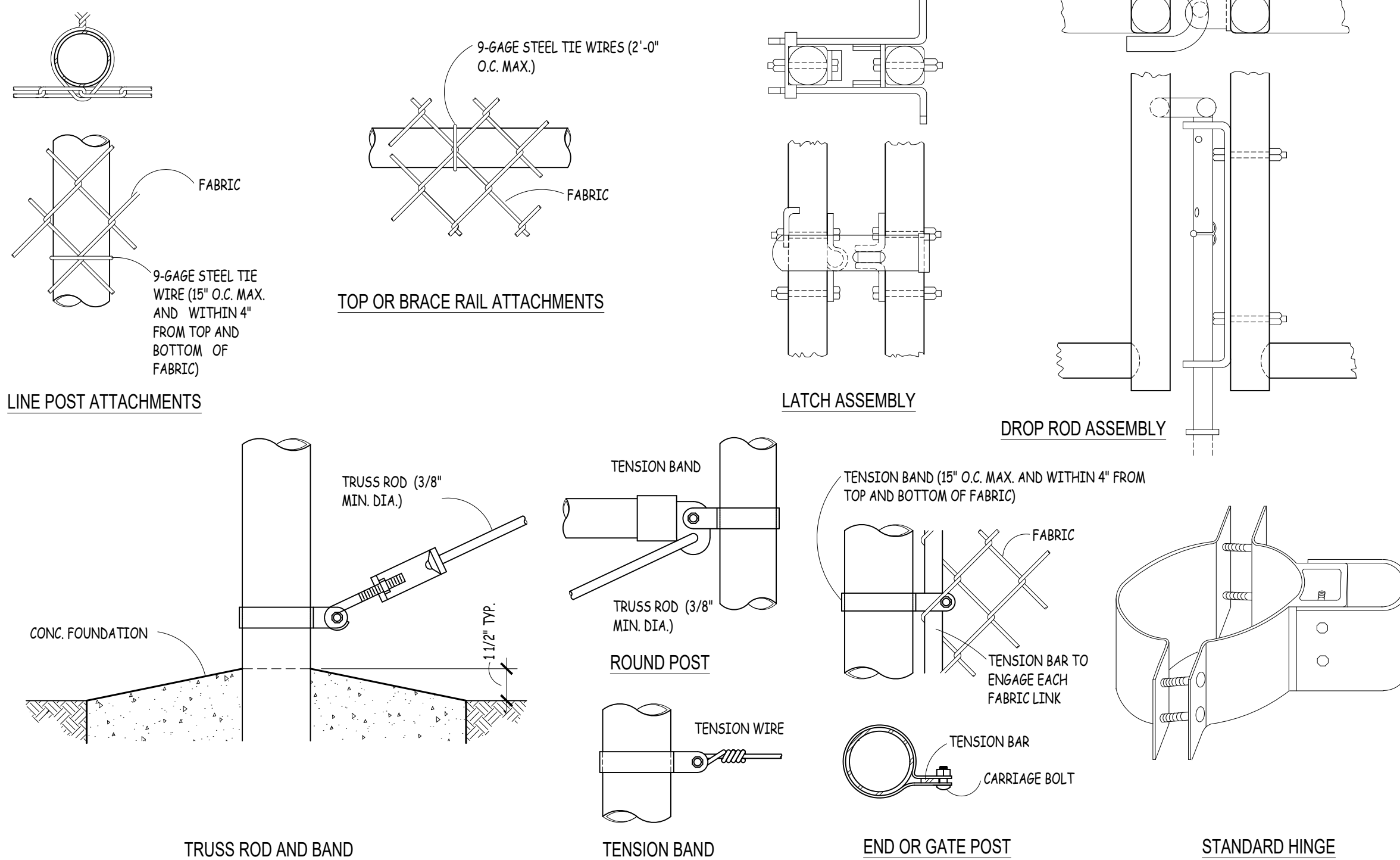
**G** 7'-0" Gate Elevation

NOT TO SCALE



**H** Drop Rod Found. Dtl.

NOT TO SCALE



**K** Miscellaneous Fence Details

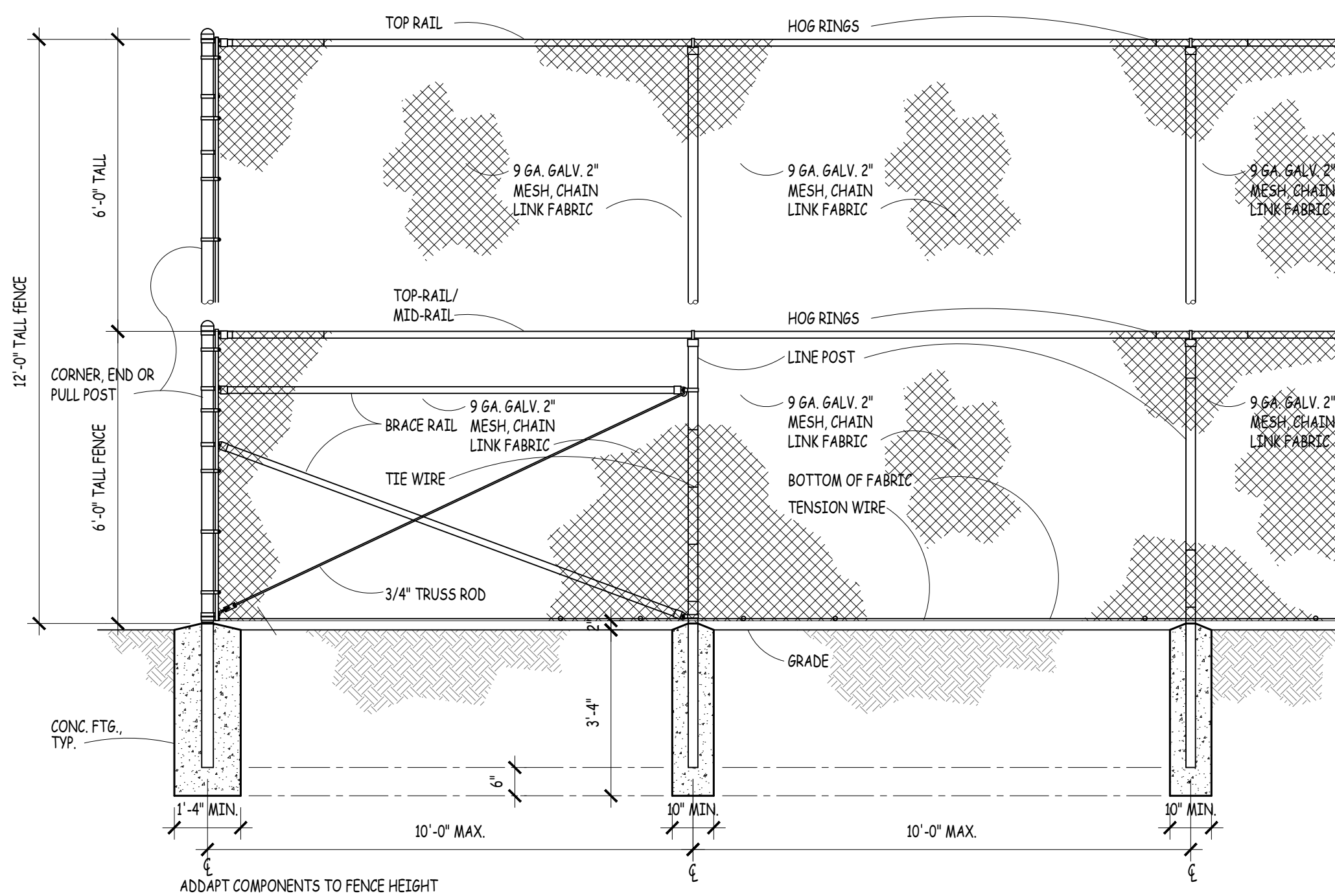
NOT TO SCALE

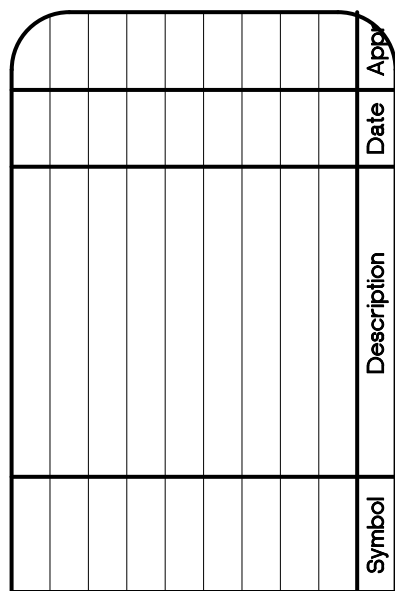
2 OUNCE/SQUARE FOOT GALVANIZED STEEL POST SCHEDULE		
USE: TUBULAR & ROUND	MINIMUM OUTSIDE DIMENSIONS	WEIGHT/LINEAR FOOT
CORNER, END, GATE & PULL POSTS	2 7/8" O.D.	3.26 PLF
LINE POSTS	2 1/2" O.D.	2.32 PLF
TOP, BOTTOM & BRACE RAILS	1 5/8" O.D.	1.43 PLF
GATE FRAME	2" O.D.	1.74 PLF
BRACE ASSEMBLY	1 5/8" O.D.	2.27 PLF
ROD W/ADJUSTABLE TAKE-UP	3/4" DIAMETER	-----


- NOTES:
- REFERENCE STATEMENT OF WORK FOR ADDITIONAL INFORMATION.
  - DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF FENCE SECTIONS AND METHODS OF INSTALLATION THAT COMPLY WITH THE STATEMENT OF WORK.
  - WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. CHAIN-LINK FABRIC SHALL BE PLACED ON THE SIDE OPPOSITE THE SECURE AREA.
  - SWING GATES SHALL BE CONSTRUCTED WITH DROP RODS, PADLOCKS, LATCH ASSEMBLY AND GATE KEEPERS EXCEPT AS NOTED.
  - ALL GATE FRAMES SHALL MEET THE MINIMUM REQUIREMENTS OF ASTM F900.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER RIGID CONSTRUCTION OF ALL FENCES & GATES SUPPLIED.

**J** Typical Chain-link Fence Elevation

NOT TO SCALE

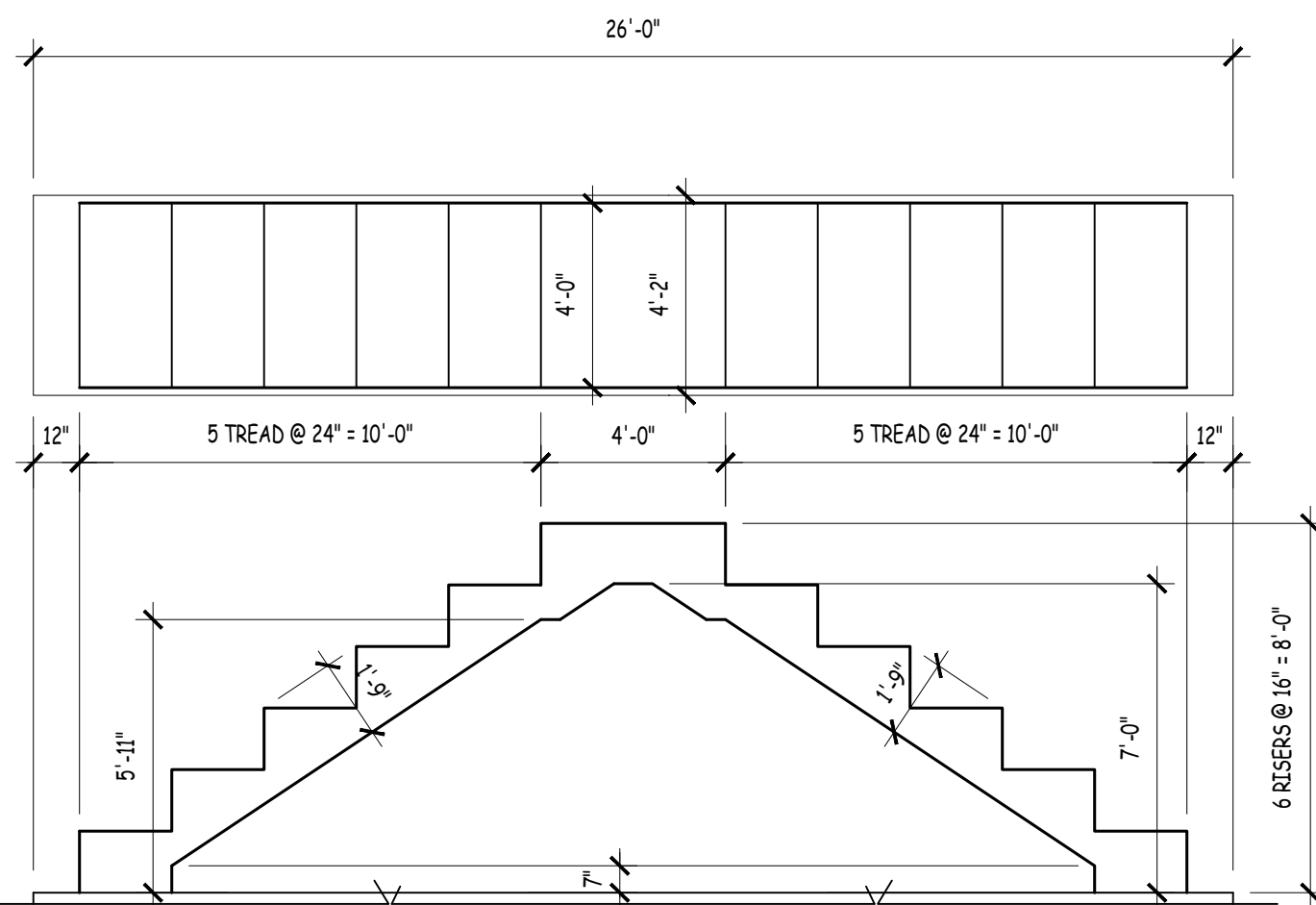


[illegible]

Designed by:	 WIRAK
Drawn by:	
Reviewed by:	
Submitted by:	

Project Number: 1056394
SHEET TITLE MISCELLANEOUS DETAILS
Date: April, 2020

SEQ.	SHEET	OF
26	A-17	26



CONCRETE OBSTACLE. REF: C-3  
IMAGE ABOVE, FOR REFERENCE, ONLY. PROVIDE CONCRETE BASE

**New Stair-Step**  
NOT TO SCALE

