



EL PASO
INDEPENDENT
SCHOOL DISTRICT
Facilities & Construction

CONTRACT DOCUMENTS MANUAL

AND

TECHNICAL SPECIFICATIONS

FOR

TIPS RCSP 230602 Pavement and Other Related Services

EPISD PROJECT No. 17.622D

PROJECT TITLE: Austin HS Driveway Ramp Improvements

**Facilities & Construction
1100 N. STANTON STREET
EL PASO, TEXAS 79902**

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JOB ORDER CONTRACT

THIS JOB ORDER CONTRACT (the "Contract") is made and entered into this _____ day of _____ 2023 by and between Keystone GC, LLC, a Texas Limited Liability Company dba Keystone Contractors & Engineers ("Contractor") and the El Paso Independent School District, an independent school district and political subdivision of the State of Texas ("Owner"). Capitalized terms used in this Contract, unless otherwise defined herein shall have the meanings ascribed to them in the Proposal Documents.

WITNESSETH:

That the Contractor and the Owner for the consideration hereinafter named agree as follows:

ARTICLE I SCOPE OF WORK

The Contractor agrees to provide all the materials and perform all the work as shown or required pursuant to Scope of Work included in this Contract for the Project entitled Project No. 17.622D, Austin HS Driveway Ramp Improvements, TIPS RCSP 230602 Pavement and Other Related Services.

ARTICLE II TERM OF CONTRACT

Work will begin upon notice to proceed and substantial completion shall be no more than one hundred twenty (120) calendar days thereafter. Final completion shall occur no later than thirty (30) days after substantial completion.

ARTICLE III THE CONTRACT SUM

Owner shall pay Contractor for the performance of the Contract, in current funds. The total sum is not to exceed a total amount of One hundred fifty-nine thousand eight hundred seventy eight dollars and 40/100 (\$159,878.40), which includes payment and performance bonds not to exceed the amount of Four thousand one hundred forty-seven dollars and 40/100 (\$4,147.40).

The Contract Sum is based upon Request for Proposals – Job Order Contracting & Facilities Construction Services – State of Texas for TIPS Interlocal Purchasing System – TIPS RCSP 230602 (TIPS CONTRACT or TIPS Contract) Pavement and Other Related Services Contract. Contractor represents, warrants and covenants to Owner that the Contract Sum meets and does not exceed the Contractor requirements and pricing terms required by the TIPS CONTRACT. Contractor shall comply with the requirements in the TIPS CONTRACT. Contractor specifically warrants that its proposal pricing meets and does not exceed the RS Means Cost Breakdown requirements as defined by the TIPS CONTRACT.

ARTICLE IV PROGRESS PAYMENTS

The Owner shall make payments on account of the Contract as provided therein as follows:

Within thirty (30) days following Owner's receipt of an Application for Payment, Owner shall pay to the Contractor ninety-five percent (95%) of the value, less the aggregate of previous payments. The Owner shall not be obligated to make more than one (1) payment during any thirty (30) day period. Upon completion of the Work, Owner shall pay to Contractor a sum sufficient to increase the total payment to one hundred percent (100%) of the Project, less the amount reflecting the Owner's determination of the amount required for the Owner to complete any pending items.

ARTICLE V ACCEPTANCE AND FINAL PAYMENT

Final payment for the Work shall be due thirty (30) days after Final Acceptance of the Work under this Contract, provided the Work is fully completed and the Contract fully performed.

ARTICLE VI LIENS

No mechanic, contractor, subcontractor, supplier or other person can or will contract for or in any manner have or acquire any lien upon the buildings or works covered by the Contract, or the land upon which the same is situated.

ARTICLE VII INSURANCE

The Contractor hereby certifies that it has in full force and effect all of the insurance as follows:

1. **Liability Insurance.** The Contractor shall purchase and maintain such insurance as will protect Contractor and the Owner from claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable in the amounts hereinafter set forth:
2. **Employer's Liability Coverage.** Lines of Five Hundred Thousand and No Dollars (\$500,000.00) per accident per employee per lease. In addition, if employees will be provided through a leasing company, Contractor shall provide Owner with a copy of the leasing company's Texas State License and evidence of workers' compensation coverage insuring the leased employees.
3. **Commercial General Liability Insurance.** Contractor shall maintain commercial general liability insurance with a combined single line of One Million and No Dollars (\$1,000,000.00) covering claims for damages because of bodily injury, sickness or disease, death and property damage, with an endorsement naming Owner as Additional Insured. Such insurance shall be on a commercial general liability form and provide coverage on an occurrence per project basis. The following coverages shall be included:
 - (a) Premises and Operations coverage, including coverage for explosion, collapse and underground damage, if applicable;
 - (b) Products and Completed Operations coverage;
 - (c) Blanket contractual coverage;
 - (d) Personal and Advertising Injury coverage;
 - (e) Fire damage with a limit of One Hundred Thousand and No Dollars (\$100,000.00);
 - (f) An endorsement naming Owner as an additional insured; and
 - (g) Deductible limitation Five Thousand and No Dollars (\$5,000.00).
4. **Business Auto Liability Insurance.** Contractor shall provide Business Automobile Liability Insurance, including (a) any auto, or (b) all owned, hired and non-owned automobiles, in an amount of not less than One Million Dollars (\$1,000,000.00). An endorsement naming Owner as Additional Insured shall be provided.
5. **Umbrella Liability Insurance.** Contractor shall provide an umbrella policy in an amount of not less than Two Million Dollars (\$2,000,000.00) for bodily injury and/or property damage liability listing above underlying policies, with an endorsement naming Owner as Additional Insured.
6. **Property Insurance.**

The Contractor shall purchase and maintain Builder's Risk Insurance upon the entire Work at the site to the full insurable value thereof until Final Acceptance of the Project by the Owner. Such insurance shall:

 - (a) be "All Risk" insurance or "Special Form" coverage;
 - (b) include the interests of the Owner (including its agents), the Contractor, subcontractors and sub-subcontractors in the Work and shall, without limitation, insure against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft (of property, tools, equipment, vehicles) vandalism and malicious mischief, collapse and water damage, flood and earthquake, testing and debris removal, including demolition occasioned by enforcement of any applicable legal requirements;
 - (c) cover reasonable compensation for Consultant's services and expenses required as a result of such insured loss.
 - (d) if not covered under Builder's Risk Insurance or otherwise provided in the Contract Documents, the Contractor shall effect and maintain similar property insurance on portions of the Work stored off the site or in transit when such portions of the Work are to be included in an Application for Payment. At Owner's discretion, Owner may accept an installation floater in lieu of Builder's Risk Insurance in the amount of the contract value.
7. Contractor shall maintain all of the foregoing insurance coverage in force until Final Acceptance of the Work other than the Products and Completed Operations Coverage required under Subparagraph 6.1.2(b) above, which shall be maintained for three (3) years following Final Acceptance of the Work.

8. If by the terms of this insurance any mandatory deductions are required, or if the Contractor should elect, with the concurrence of the Owner, to increase the mandatory deductible amounts or purchase this insurance with voluntary deductible amounts, the Contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

9. Losses are to be adjusted with the Owner. All insurance policies shall provide for occupancy by the Owner prior to Final Acceptance.

The Contractor further certifies that the Contractor provides workers' compensation insurance coverage for all of its employees who will be employed for any of the Work described herein. The Contractor agrees to require each of its subcontractors to provide a certificate to the Contractor certifying that all of the subcontractor's employees are covered by workers' compensation insurance, and the Contractor shall deliver such certificate(s) to the Owner prior to commencement of the Work.

ARTICLE VIII THE TIPS CONTRACT

This Contract is subject to the terms and conditions of the TIPS Interlocal Purchasing System (TIPS CONTRACT).

IN TESTIMONY WHEREOF, the parties have executed this Contract in quadruplicate effective on the day and year first set forth above.

CONTRACTOR: KEYSTONE GC, LLC, a Texas
Limited Liability Company, dba Keystone Contractors
& Engineers

ATTEST:

By: Abigail Macias
Abigail Macias

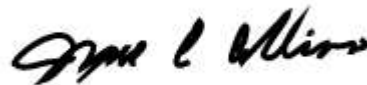
By: 
Name: **Francisco Guillen**
Title: **Principal**

EL PASO INDEPENDENT SCHOOL DISTRICT

By: _____
Name: Diana Sayavedra
Title: Superintendent

Approved as to Form

Signed: Friday, September 22, 2023



Signed: Friday, September 22, 2023

PERFORMANCE BOND
(Chapter 2253, Texas Government Code)

THE STATE OF TEXAS
COUNTY OF EL PASO

KNOW ALL MEN BY THESE PRESENTS: That we

_____, (Full Name of Contractor) a _____ of
_____, (Corporation/LLC/Partnership/Individual) of
_____ hereinafter called Principal, (Full Address of Contractor) and

(Full Name of Surety)
of _____, State of _____,
(City)

hereinafter called the Surety, are held and firmly bound unto the El Paso Independent School District, hereinafter called Owner, in the penal sum of _____ Dollars (\$ _____) in lawful money of the United States, to be paid in El Paso, El Paso County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal entered into a certain Contract with the Owner, dated the _____ day of _____, 20____, (the "Contract") for the construction of: Austin HS Driveway Ramp Improvements (Project No. 17.622D) which Contract is incorporated herein by this reference;

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform the Contract in accordance with the Plans, Specifications and other Contract Documents during the original term thereof, INCLUDING ANY WARRANTY AND GUARANTY PERIODS, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect. Whether the Contractor has defaulted under the Contract, and the duties and responsibilities of the Surety in the event of such default, shall be determined in accordance with the terms of the Contract.

PROVIDED FURTHER, that if any legal action be filed upon this bond, venue shall lie in El Paso County, State of Texas and that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the Contract or to the Plans or Specifications accompanying the same shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

All notices to the Principal or Surety may be mailed or delivered to the address shown following their respective signatures below.

IN WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20____.

PRINCIPAL:

ATTEST: _____

By _____
Secretary

By: _____
Name: _____
Title: _____

Witness as to Principal (if a Partnership or Individual)

(Address)

(Address)

By: _____
Name: _____

Partner

By: _____
Name: _____

Partner

SURETY:

By: _____
Name: _____

Attorney-in-Fact

(Address)

THE ADDRESS OF THE SURETY TO WHICH A NOTICE OF CLAIM SHOULD BE SENT MAY BE OBTAINED FROM THE TEXAS DEPARTMENT OF INSURANCE BY CALLING THE FOLLOWING TOLL-FREE TELEPHONE NUMBER: 800/252-3439

NOTE: Date of Bond must not be prior to date of Contract.
If Contractor is a Partnership, all partners must execute bond.

PAYMENT BOND
(Chapter 2253, Texas Government Code)
(Job Order Contract)

THE STATE OF TEXAS
COUNTY OF EL PASO

KNOW ALL MEN BY THESE PRESENTS: That we _____
of _____ hereinafter called Principal, and
_____ of _____
(Full Name of Surety) (City)

State of _____, hereinafter called the Surety, are held and firmly bound unto the El Paso Independent School District, hereinafter called Owner, in the penal sum of _____
(\$_____). In lawful money of the United States, to be paid in El Paso, El Paso County, Texas, the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal entered into a certain Job Order Contract with the Owner, dated the _____ day of _____, 20____, (the "Contract") for the Minor Construction, Repair, Rehabilitation and Alteration of Facilities of: Austin HS Driveway Ramp Improvements (JOC No. _____ (Project No. 17.622D)

WHEREAS, pursuant to the Contract, Owner has issued the Contract effective the _____ day of _____, 20____ (the "Contract").

NOW, THEREFORE, the condition of this obligation is such that, if the Principal shall promptly make payment to all payment bond beneficiaries as defined in Chapter 2253, Texas Government Code, as amended, supplying labor and materials in the prosecution of the Work provided herein, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

This bond is made and entered into solely for the protection of all payment bond beneficiaries supplying labor and material in the prosecution of the work provided for in said Contract for said Contract for said Contract, and all payment bond beneficiaries shall have a direct right of action under this bond as provided in Chapter 2253, Texas Government Code, as amended.

PROVIDED FURTHER, that if any legal action be filed upon this bond, venue shall lie in El Paso County, State of Texas and that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in anywise affect its obligation on this bond, and the Surety does hereby waive notice of any such change, extension of time, alteration or addition.

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

All notices to either the Principal or the Surety may be delivered to the address shown following their respective signatures below.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20____.

PRINCIPAL:

ATTEST:

By: _____
Secretary

By: _____

Name: _____

Title: _____

Witness as to Principal (if a Partnership
or Individual)

(Address)

**THE ADDRESS OF THE SURETY TO WHICH
A NOTICE OF CLAIM SHOULD BE SENT
MAY BE OBTAINED FROM THE TEXAS
DEPARTMENT OF INSURANCE BY CALLING
THE FOLLOWING TOLL-FREE TELEPHONE
NUMBER:**

800-252-3439

NOTE: Date of Bond must not be prior to date of the Contract.
If Contractor is a Partnership, all partners must execute bond.

(Address)

By: _____

Name: _____
Partner

By: _____

Name: _____
Partner

SURETY:

By: _____

Name: _____
Attorney-in-Fact

(Address)

STATE OF TEXAS)
COUNTY OF EL PASO)

EXEMPTION CERTIFICATE

The undersigned hereby claims an exemption from payment of taxes under Chapter 151, Texas Tax Code, known as the Limited Sales, Excise, and Use Tax Act, for the purchase of the tangible personal property described on the attached order or invoice which is made a part hereof, and will be purchased from _____.

The reason that the undersigned is claiming this exemption is: The material listed is to be used in the construction of Project No. 17.622D, Austin HS Driveway Ramp Improvements El Paso, Texas and an exemption is claimed under Section 151.309 of the Texas Tax Code. All of such material is to be furnished to the EL PASO INDEPENDENT SCHOOL DISTRICT, for which the improvements are being constructed by the undersigned.

The undersigned agrees that if the property is used in such a manner as to subject the sale thereof to tax under the Texas Limited Sales, Excise and Use Tax Act, the undersigned becomes liable for the tax.

EXECUTED this the _____ day of _____, 20__.

CONTRACTOR:

KEYSTONE GC, LLC, a Texas Limited Liability Company, dba Keystone Contractors & Engineers

By:  _____

Name: Francisco Guillen

Title: Principal

EL PASO Independent School District TAX EXEMPT NO. 1-74-6000769-7



KEYST-1

OP ID: JD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

09/14/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER AIS Anderson Ins. Services LLC 6090 Surety Dr., Suite 440 El Paso, TX 79906 Lynda Anderson	915-772-0456	CONTACT NAME: Jessica De Anda PHONE (A/C, H/L, Ext): 915-772-0456 E-MAIL: Jdeanda@aisandersoninsurance.com FAX (A/C, H/L): 915-778-3708
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Mountain States Indemnity Co		10177
INSURER B: Texas Mutual Ins. Co.		22945
INSURER C: Markel Ins. Co.		38970
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

NR	TYPE OF INSURANCE	ADOL	SUBR	POLICY NUMBER	POLICY EFF	POLICY EXP	LIMITS
LTR					(MM/DD/YYYY)	(MM/DD/YYYY)	
A	☒ COMMERCIAL GENERAL LIABILITY						
	☐ CLAIMS-MADE ☒ OCCUR			CPO9141266	09/17/2023	09/17/2024	EACH OCCURRENCE \$ 1,000,000
							DAMAGE TO RENTED PREMISES (EA occurrence) \$ 500,000
							MED EXP (Any one person) \$ 15,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COMPOD AGG \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						
	POLICY ☒ PER ☐ LOC ☐						
	OTHER:						
A	AUTOMOBILE LIABILITY						
	☒ ANY AUTO			CAO9141266	09/17/2023	09/17/2024	COMBINED SINGLE LIMIT (EA accident) \$ 1,000,000
	☐ OWNED AUTOS ONLY						BODILY INJURY (Per person) \$
	☐ HIRE AUTOS ONLY						BODILY INJURY (Per accident) \$
	☐ SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident) \$
	☐ NON-SCHEDULED AUTOS ONLY						
A	☒ UMBRELLA LIAB						
	☐ EXCESS LIAB			CXO9141266	09/17/2023	09/17/2024	EACH OCCURRENCE \$ 2,000,000
	☐ RETENTION \$ 0						AGGREGATE \$ 2,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						
	ANY PROGRAMS FOR PARTIAL/EXECUTIVE OFFICIALS/EMERGENCY EXCLUDED? (Mandatory in NH)	Y/N	N/A	0001204706	09/17/2023	09/17/2024	☒ PER STATUTE ☐ OTHER
	If yes, describe under DISPOSITION OF OPERATIONS below:						E.L. EACH ACCIDENT \$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution			CPLMOL114056	11/16/2022	11/16/2024	Poll Agg \$ 2,000,000
	Deductible \$10,000						Poll Occ \$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: 17.622D Austin HS Driveway Ramp Improvements
Project Location: Austin High School, 3500 Memphis Ave., El Paso, TX 79930

** See Holder Notes ** Next Page

CERTIFICATE HOLDER	CANCELLATION
EPISDDO	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
El Paso Independent School District 1100 N. Stanton El Paso, TX 79902	AUTHORIZED REPRESENTATIVE Lynda R. Anderson

ACORD 25 (2016/03)

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NOTEPAD:	HOLDER CODE	EPISDDD	KEYST-1	PAGE 2
	INSURED'S NAME	Keystone GC, LLC	OP ID: JD	Date 09/14/2023
GL & Auto include a blanket automatic additional insured endorsement that provides additional insured status to the certificate holder only when there is a written contract between the named insured and the certificate holder that requires such status. GL, Auto & WC include a blanket waiver of subrogation endt when required by written contract.				



EVIDENCE OF PROPERTY INSURANCE

OP ID: JD

DATE (MM/DD/YYYY)
09/21/2023

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST.

AGENCY AIS Anderson Ins. Services LLC 6090 Surety Dr., Suite 440 El Paso, TX 79905 Lynda Anderson		PHONE (A/C, No, Ext): 915-772-0456		COMPANY Ohio Casualty Insurance Co 175 Berkeley Street Boston, MA 02116	
FAX (A/C, No): 915-778-3708		E-MAIL ADDRESS:			
CODE: 9710814		SIB CODE:			
AGENCY CUSTOMER ID #: KEYST-1					
INSURED Keystone GC, LLC DBA Keystone Contractors & Eng 2718 Wyoming El Paso, TX 79903		LOAN NUMBER		POLICY NUMBER BMO66724447	
		EFFECTIVE DATE 10/09/2023		EXPIRATION DATE 10/09/2024	
				☐ CONTINUED UNITS TERMINATED IF CHECKED	
		THIS REPLACES PRIOR EVIDENCE DATED:			

PROPERTY INFORMATION	
LOCATION/DESCRIPTION 3500 Memphis Ave El Paso, TX 79930	Austin High School
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.	

COVERAGE INFORMATION		PERILS INSURED	BASIC	BROAD	☒ SPECIAL		AMOUNT OF INSURANCE	DEDUCTIBLE
COVERAGE / PERILS / FORMS								
Builders Risk Inland Marine Form							150,000	1,000
Debris Removal							5,000	
Limited Fungus							15,000	
Pollutant Cleanup							10,000	
Storage							10,000	
Transit							10,000	
Testing							150,000	

REMARKS (Including Special Conditions)
Project: 17.622D Austin HS Driveway Ramp Improvements

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST	
NAME AND ADDRESS El Paso Independent School District 1100 N. Stanton El Paso, TX 79902	☒ ADDITIONAL INSURED ☐ MORTGAGEE LOAN # LENDER'S LOSS PAYABLE ☒ LOSS PAYEE AUTHORIZED REPRESENTATIVE <i>Lynda R. Anderson</i>

ACORD 27 (2016/03)

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STANDARD TERMS AND CONDITIONS
FOR JOB ORDER CONTRACTS

The Contractor agrees that the Job Order Contract (the "Contract") shall be governed by the following terms and conditions.

1. COMMENCEMENT OF WORK.

1.1 No work shall be performed under the Contract unless has been executed by the Superintendent of Schools and insurance certificates and payment and performance bond documents (if applicable) have been provided to the Owner.

1.2 The Contractor shall deliver to Owner a revised certified payroll listing the Contractor's employees and their respective job classifications. To the extent that the services of any employee require a license, Contractor shall deliver to Owner current licenses.

2. THE WORK. The Contractor shall:

2.1 be expected to provide all labor, equipment, supplies, materials, superintendence and testing necessary for completion of the Work. The Contractor shall complete such details of work for the successful operation of systems.

2.2 perform Work to be done in a neat and orderly manner, in accordance with industry standards, required code and adhere to the Owner's construction specifications.

2.3 pay all applicable costs, fees and permits.

2.4 upon completion of work, clear the job site of any and all debris. All work shall be scheduled as to be safe and shall not interfere with classes or meetings in any way unless approved by the Owner Maintenance, Buildings and Grounds Director due to special need or an emergency situation.

2.5 be on call 24 hours a day in case of an emergency. Upon award, the Contractor shall provide the Director for Facilities and Construction with the telephone number(s) of the person or persons to be called in case of an emergency. All calls shall only notice, with written authorization to follow.

2.6 provide only new equipment and materials, unless otherwise indicated in the Contract.

2.7 ensure that the manufacturer's name, address, model number and serial number are permanently attached in a conspicuous location, on all major equipment components.

2.8 ensure that all materials furnished under these specifications are the standard product of manufacturers regularly engaged in the production of such equipment and are the manufacturers' latest approved standard design.

2.9 comply fully and shall cause its Subcontractors and their respective employees to fully comply with all applicable federal, state, and local safety and health laws, ordinances, rules and regulations in the performance of the services, including but not limited to.

2.9.1 Executive Order 11246, Equal Opportunity Employment, as amended.

2.9.2 "Anti-Kickback" Acts.

2.9.3 Davis-Bacon Act, if applicable.

2.9.4 Sections 103 and 107 of the Contract Work Hours and Safety Standards Act.

2.9.5 Section 306 of the Clean Air Act, Section 508 of the Clean Water Act, Executive Order 11738, and the Environmental Protection Agency regulations 40 C.F.R., Part 51.

2.9.6 Energy Policy and Conservation Act (P.L. 94-163).

2.9.7 Latest update to Department of Labor Occupational Safety and Health Administration Regulation published in 29 C.F.R. Parts 1910 and 1926, dated Tuesday, August 9, 1994.

2.10 visit the premises where work is to be performed prior to start of work, as it is the Contractor's responsibility to identify all costs associated with a particular Contract.

2.11 carefully lay out all work in advance so as to minimize cutting, channeling, chasing or drilling of floor, walls, partitions, ceilings, etc.

2.12 perform all cutting, drilling, anchoring or welding of structural members in a manner having the Owner's prior approval.

- 2.13 fire seal any penetrations of firewalls per specific U.L. System Number.
- 2.14 perform any work details and materials not otherwise mentioned shall be included in the scope of work for this Contract.
- 2.15 with respect to electrical:
 - 2.15.1 shall perform all cutting, channeling, drilling, etc. as required for the proper support, concealment, installation or anchorage of raceways, outlets, or electrical equipment in a careful manner. Any damage to the building, structure, equipment, or defaced finish or metal work shall be repaired by skilled workers of the trades involved at the bidder's expense and to the satisfaction of the Owner.
 - 2.15.2 ensure that all electrical personnel working on an Owner site are licensed and working under the supervision of a Master Electrician, as appropriate, at all times.
 - 2.15.3 shall provide a suitable box or crate electrical equipment and cover with waterproof covers to protect against dirt, moisture or other accidental exposure.
 - 2.15.4 where the Underwriters Laboratories (UL) have established standards and issued labels for a particular group, class or type of material, apparatus, type of appliance or device, shall provide the UL label on all such items in that category incorporated into the work.
 - 2.15.5 where such items are not covered by UL standards, meet or exceed the requirements of the current National Electric Code (NEC) or, if not covered there, by the applicable published recognized standard of the American National Standards Institute (ANSI) or the industry, and the related engineering society. Example: National Electrical Manufacturers Association (NEMA) and Institute of Electrical and Electronics Engineers (IEEE).
- 2.16 with respect to carpentry:
 - 2.16.1 adhere at all times to general practices for the carpentry trade within the scope of work. A Carpentry Foreman shall supervise work performed.
 - 2.16.2 where specified, in the Scope of Work, use only the type of materials specified.
- 2.17 with respect to painting:
 - 2.17.1 adhere at all times to general practices for the painting trade within the scope of work. A Supervisor shall supervise work performed.
 - 2.17.2 where specified, use only the type of paint (brand and color) specified for the completion of the work.
- 2.18 mark equipment in detail according to the specifications or in the same manner as existing equipment being replaced, (no dymo (stick-on indented plastic) label will be permitted) and identify equipment as designated by Owner.
- 2.19 retain all portable and detachable parts or portions of installation until final completion of work. These parts shall be delivered to the Owner Maintenance, Buildings and Grounds Director and acknowledged as itemized receipts to obtain request for final payment.
- 2.20 use all means necessary to protect the work and materials before, during and after installation and to protect the work and materials of all other surroundings.
- 2.21 in the event of damage, immediately make all repairs and replacements necessary to the approval of Owner, with no additional cost to the Owner.
- 2.22 store and protect materials and equipment in accordance with the manufacturer's recommendations.
- 2.23 use only thoroughly trained and experienced workmen completely familiar with the items required or with the manufacturer's recommended methods of installations. In acceptance or rejection of work performed, no allowance will be made for the lack of skill on the part of the worker(s).
- 2.24 where details or specific installation specifications are not included, follow approved manufacturer's recommendations.
- 2.25 install, complete, thoroughly check, correctly adjust, clean and leave ready for operations all equipment and material connected with the project.
- 2.26 cooperate with other parties and Contractors so that the installation of materials and equipment may be properly coordinated and provide minimum disruption.

2.27 furnish three (3) copies of the operating maintenance manuals to the Owner, as well as copies of all approved submittal data as it applies.

2.28 be fully responsible to the Owner for all acts and omissions of the Subcontractors just as the Contractor is responsible for the Contractor's own acts and omissions. Nothing in the Contract shall create for the benefit of any such Subcontractor any contractual relationship between the Owner and any such Subcontractor, nor shall it create any obligation on the part of the Owner to pay or to see to the payment of any monies due any such Subcontractor except as may otherwise be required by law.

2.29 for jobs exceeding thirty (30) days, provide thirty (30) day progress reports indicating current status of the Work to include verification of work schedule and percentage of Work completion.

2.30 maintain and will cause its Subcontractors to maintain a daily log for each worksite in form acceptable to Owner and which, at a minimum, identifies time-in/time-out for each employee and his/her job classification.

3. PREVAILING WAGE RATE.

3.1 The Owner has determined a Prevailing Wage Rate Schedule of Per Diem Wages for most crafts or types of workmen or mechanics, and has specified this rate. These rates, set out elsewhere, form part of the Contract Documents, and are incorporated herein by reference in their entirety. Except as set forth in Section 3.2, the Contractor and any Subcontractor under him shall pay no less than the aforesaid rates. Nothing herein shall prevent the payment of an amount greater than such rates. The provisions of Chapter 2258 of Texas Government Code, as presently in effect or hereafter amended, are incorporated herein by reference in their entirety. If the Contractor or any Subcontractor violates this section, the Contractor or Subcontractor shall pay to Owner Sixty and No/100 Dollars (\$60.00) for each worker employed for each calendar day or part of the date that the worker is paid less than the Prevailing Wage Rate Schedule. Contractor and each Subcontractor shall provide records showing the name and occupation of each worker employed with respect to the Project and the actual per diem wages paid to each worker on a certified payroll. Such records shall be open at all reasonable hours for inspection by the Owner and its agents.

3.2 The Contractor or Subcontractor shall insert in all subcontracts the provisions of this Section 3 and a clause requiring the Subcontractors to include these clauses in any lower tiered subcontracts. The Contractor shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with the requirements of this Section 3.

3.3 To insure compliance with the provisions of this Section 3, the Contractor shall:

- post the Prevailing Wage Rate schedules made part of this Contract at each work site in a prominent location readily accessible to the workers through the duration of the Project.
- shall post a notice to be provided by Owner regarding Prevailing Wage Rates, in English and Spanish, which shall be posted nearby the Prevailing Wage Rate schedules.

No worker shall be discharged by the Contractor or a Subcontractor or in any other manner discriminated against because such worker has filed an inquiry or complaint or instituted or caused to be instituted any legal or equitable proceeding or has testified or is about to testify in any such proceeding under or relating to the Prevailing Wage Rates.

The Contractor and each Subcontractor shall allow expeditious jobsite entry by the Owner's Director of Planning, Engineering & Construction and/or his agents and representatives displaying and presenting proper identification credentials to the jobsite superintendent or his/her representative. The Contractor and each Subcontractor shall allow Project employees to be interviewed at random or specifically ask to speak to workers for a reasonable duration by the Owner's Director of Planning, Engineering & Construction and/or his agents and representatives to facilitate compliance determinations regarding the provisions of this Contract with reference to the Prevailing Wage Rates. The Owner's representative will have the employee sign the interview sheet and compare the sheet to the submitted payroll to determine if there are any discrepancies. Attached, as Schedule 1, is a sample worker interview form.

The Owner reserves the right to terminate this Contract for cause if the Contractor and/or any Subcontractor shall breach any of these provisions regarding the Prevailing Wage Rates.

Contractor and each Subcontractor must indicate on the certified payroll submitted, employees in their employ. The Owner will provide a uniform format to the Contractor and each Subcontractor for certified payroll submissions, which will include the employee's name, social security number, job title, and wage. Attached, as Schedule 2, is a sample format for certified payroll submission and a sample of work classification certification, as Schedule 3.

3.4 Contractor's records will, upon reasonable notice, be open to inspection and subject to audit and/or reproduction during normal business working hours. Such audits may be performed by an Owner's representative or an outside representative engaged by the Owner. The Owner or its designee may conduct such audits or inspections throughout the term of the contract and for a period of five (5) years after final payment or longer if required by law.

Contractor's records as referred to in this Contract will include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, agreements, purchase orders, leases, commitments, arrangements, notes, daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in Owner's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by the Contract Document. Such records will include (hard copy, as well as computer readable dates if it can be made available), written policies and procedures; time sheets; payroll registers; canceled checks; subcontract files; original estimates; estimating work sheets; correspondence; change order files (including documentation covering negotiated settlements); back charge logs and supporting documentation; general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of interest to Owner in connection with the Contractor's dealings with the Owner (all of the foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of Contractor's compliance with Contract requirements.

3.5 If an audit inspection or examination in accordance with this article discloses overpricing or overcharges (of any nature) by the Contractor to the Owner in excess of one percent (1%) of the total Contract billings, in addition to making adjustments and/or payments, the reasonable actual cost of the Owner's audit will be reimbursed to the Owner by the Contractor. Any adjustments and/or payments which must be made as a result of any such audit or inspection of the Contractor's invoices and/or records will be made within a reasonable amount of time (not to exceed ninety (90) days) from presentation of Owner's finding to Contractor.

3.6 If accounting or audit services are required in order to reconcile the Contractor's account (payments; billings), and it is determined that the reconciliation is required as a result of the action or lack of action on the Contractor's part, then the Contractor will be liable for all reasonable accounting and or audit costs incurred by the Owner to perform the reconciliation.

4. PERSONNEL STANDARDS. The Contractor shall employ only orderly and competent workers, skilled in the performance of the services, which they will perform under the Contract. The Contractor, its employees, Subcontractor, and Subcontractor's employees may not use or possess any firearms, alcoholic or other intoxicating beverages, tobacco products, illegal drugs or controlled substances while on the job or on the Owner's property, nor may such workers be intoxicated, or under the influence of alcohol or drugs on the job. The following personnel standards shall apply to all Contractor's personnel assigned to Owner's property. Deviations from these standards require written consent of the Owner before Contractor's personnel are assigned to Owner's property.

4.1 EMPLOYMENT BACKGROUND. Provision Deleted.

4.2 CRIMINAL BACKGROUND. Contractor's personnel assigned to Owner's property shall have a clean criminal record. The Contractor shall conduct local and statewide criminal record checks. Contractor must give written notice to the Owner if the person or an Owner or operator of the business entity has been convicted of a felony. The notice must be given prior to entering the contract to the Owner, and must include a general description of the conduct resulting in the conviction of a felony. The Owner has the right to terminate a contract with a person or business entity if the Owner determines that the person or business entity failed to give the notice required in this paragraph or misrepresented the conduct resulting in the conviction. This paragraph does not apply to a publicly held corporation. Contractor shall comply at its sole expense with all applicable laws in performance of the contract to be awarded. If the award involves the provision of any services to the Owner, the person or business entity that proposes to enter into a contract with the Owner shall furthermore comply at its sole expense with the requirements of Section 22.0834 of the Texas Education Code, Section 153.1117 of Title 19 of the Texas Administrative Code, and any Owner board policy relating to or arising from such statute or regulation, shall ensure that no covered employee of the person or business entity that proposes to enter into a contract with the Owner or of any subcontractor [if authorized] with a disqualifying criminal history performs services under the award at or for the Owner, and shall timely provide to Owner written certifications thereunder in such form and substance as requested by the Owner. The Contractor shall execute and deliver the Contractor Certification Regarding Criminal History in the form attached hereto as Exhibit "2".

4.3 DRIVING RECORD. Contractor's personnel shall possess driving records reflecting reasonable care and judgment. The benchmark for failure to meet this standard shall be:

- 4.3.1 Three moving violations within the past three years;
- 4.3.2 Or any upheld suspension or revocation of license within the past three years;
- 4.3.3 Or any conviction for driving under the influence of intoxicants (DWI), without a time limit.

Vendor shall provide results of motor vehicle record checks.

4.4 FREEDOM FROM DRUG USE. Contractor's personnel assigned to Owner's property shall be demonstrably free from addiction to, or use of, illicit drugs, as determined by a ten-panel urinalysis drug screening. Testing shall be accomplished at clinically supervised independent collection sites, certified by the Substance Abuse and Mental Health Services Administration (formerly National Institute of Drug Abuse).

4.5 APPEARANCE. Contractor's personnel assigned to Owner's property should present a positive appearance that reflects good personal grooming habits. Appearance standards are:

- 4.5.1 Only prescription eye-glasses may be worn. Sunglasses shall not be worn inside the building except on written recommendation of a physician.
- 4.5.2 No jewelry in their noses or ears, except for women with pierced ears who may wear earring studs. No excessive or "dangling" jewelry may be worn on the neck, wrist or waist. Two rings and a wristwatch only, may be worn on finger and wrist.

4.6 PUBLIC RELATIONS SKILLS. Personnel assigned to Owner's property shall possess satisfactory public relations skills, sufficient to permit them to interact positively with Owner's employees, visitors, and the general public.

4.7 IDENTIFICATION BADGES. All persons present on the Project site are required to possess and display on their person a form of identification. The Contractor is required to provide, at its own expense, an identification badge for all employees working on the project, i.e. Contractor's and Subcontractor's personnel, and ensure they are prominently displayed at all times while on the Project site. A color photo identification badge, furnished by the Contractor, must include a recent facial color photograph, the individual's full name and the name of the company employing them on the project premises. The photo identification badge must not be smaller than a Texas issued drivers' license. A duplicate copy of each color photo ID shall be submitted to the Owner for its records.

5. PRICING.

5.1 The Contractor shall furnish a price breakdown, itemized as required by Owner, for the Work.

5.2 Pricing requested on the Proposal Form, for miscellaneous trades shall be a cost differential from a standard trade price book such as R.S. Means. This pricing method may be used for general trades other than those specified and the rates for these minor construction trades shall be established under this price structure. If using other than R.S. Means, the Contractor must provide two copies of the price book rates from which the rates will be calculated.

5.3 Hourly rates contained in the Proposal shall be firm for the duration of the Contract term including extensions.

5.4 Where a specific item or type of work is not covered by specified rates or in the price book, the price book may be used to determine prices for the item or type of work based on a comparison of form, fit, and function to those specified in the price book.

5.5 Where pricing cannot be determined by the price book or comparison, the Contractor shall furnish a price breakdown sufficient in detail to permit analysis of material, labor, equipment, sub-contract, and overhead costs, as well as profit, and shall cover all work involved, whether such work was deleted, added or changed. Any amount claimed for subcontracts shall be supported by a similar price breakdown. All costs claimed are subject to negotiation.

5.6 Owner and Contractor acknowledge and agree that any percentage mark-up contained in the Proposal Form is intended to, and shall cover the Contractor's profit and all indirect cost including but not limited to, home office expenses, branch office and field office overhead expenses of any kind; project management, superintendents, detailing; legal, accounting, data process or other administrative expenses; shop drawings, permits; comprehensive general liability insurance; auto insurance; vehicle cost; and all tools and equipment. Project Managers shall be considered part of field supervision and are included as part of overhead, unless they are working foremen. As used herein, "working foreman" is a person who works (production work) with his subordinates one hundred (100%) of his time each day at each work site.

5.7 When specified, Owner will allow a mark-up on equipment that is purchased by other means to achieve completion in a timely manner. To prevent discrepancies that would otherwise keep the Work from progressing, this amount will be paid as part of the retention and paid in full on project completion at the end of warranty period.

5.8 Contractor shall not mark-up freight charges associated with the delivery of repair/replacement parts. All freight charges shall be billed at Contractor's direct cost.

6. INVOICING REQUIREMENTS.

6.1 Contractor shall bill not more than one (1) time every thirty (30) days. All invoices must be original, facsimile (FAX) or photostatic copies of invoices will not be acceptable.

6.2 Each invoice must:

- 6.2.1 contain the Contractor's name, remittance address, vendor number, unique invoice number, the Owner's project number, the Owner's purchase order number, Owner's unique account string, payment terms and invoice total.
- 6.2.2 contain the applicable hourly rates, parts cost and other pertinent information, on the service report/invoice for tracking purposes.

- 6.2.3 be legible. Invoices, which are illegible, will not be processed but will be returned to the Contractor's for correction and re-submittal.
- 6.2.4 accurately reflect the invoice total. Incorrect invoices (unit price or arithmetic errors) will not be processed but will be returned to the Contractor for correction and re-submittal.
- 6.3 Not Applicable.
- 6.4 Payment will not be made by the Owner to Contractor for any employee not listed on the certified payroll and on the Contractor's manpower reports.
- 6.5 Employees of Contractor performing two (2) or more jobs for a substantial period of time during the course of the day should be properly classified and shown on the payroll and all of the different jobs performed at each worksite. The corresponding wage rates for the different classifications, as well as the time worked (time-in/time-out) on each project should be shown on the payroll records.
- 6.6 No time charges for overtime hours worked on the Project will be allowed if the employee is not actually paid for the overtime.
7. **REPRESENTATIONS AND WARRANTIES.** The Contactor represents and warrants to Owner that:
- 7.1 the prices quoted in the Scope of Work are in compliance with the TIPS Contract.
- 7.2 it has good and indefeasible title to all services and materials furnished under the Contract, and that the services and materials are free and clear of all liens, claims, security interests and encumbrances. The Contactor shall indemnify and hold the Owner harmless from and against all adverse title claims to the services and materials.
- 7.3 all services and materials sold the Owner under the Contract shall be free from defects in design, workmanship or manufacture, and conform in all material respects to all applicable State, Federal or local laws, rules, and regulations, and industry codes and standards.
- 7.4 all services to be provided the Owner under the Contract will be fully and timely performed in a good and workmanlike manner in accordance with generally accepted industry standards and practices, the terms, conditions, and covenants of the Contract, and all applicable Federal, State and local laws, rules or regulations.
- 7.5 the services and materials supplied by the Contactor in accordance with the specifications in the Contract will not infringe, directly or indirectly, any patent, trademark, copyright, trade secret, or any other intellectual property right of any kind of any third party; that no claims have been made by any person or entity with respect to the ownership or operation of the services and materials and the Contactor does not know of any valid basis for any such claims.
- 7.6 that no person or selling agency has been employed or retained to solicit or secure the Contract upon any agreement or understanding for commission, percentage, brokerage, or contingent fee, excepting bona fide employees of bona fide established commercial or selling agencies maintained by the Contactor for the purpose of securing business. For breach or violation of this warranty, the Owner shall have the right, in addition to any other remedy available, to cancel the Contract without liability and to deduct from any amounts owed to the Contactor, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.
- 7.7 if this contract is valued at \$100,000 or more and if Contractor has at least ten (10) full time employees, then Contractor represents and warrants to the Owner that the Contractor: (1) does not boycott Israel and will not boycott Israel during the term of this Contract; and (2) does not boycott energy companies and will not boycott energy companies during the term of the contract. This section does not apply to a sole proprietorship.
- 7.8 Contactor represents and warrants that: (1) it is not engaged in business with Iran, Sudan, or a foreign terrorist organization, as prohibited by Section 2252.152 of the Texas Government Code; and (2) it is not listed in the prohibited vendors list authorized by Executive Order No. 13224, "Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism," published by the United States Department of the Treasury, Office of Foreign Assets Control.
- 7.9 under Section 231.006 of the Texas Family Code, to the extent applicable to the Contract, the Contactor certifies that the individual or business entity named in this Contract is not ineligible to receive the specified payments and acknowledges that this Contract may be terminated and payment withheld if this certification/representation and warranty is inaccurate.
- 7.10 Contractor certifies that it does not require its customers to provide any documentation certifying the customer's COVID-19 vaccination or post-transmission recovery on entry to, to gain access to, or to receive service from the Contractor's business. Contractor acknowledges that such a vaccine or recovery requirement would make Contractor ineligible for a state-funded contract.

7.11 if Contractor is required to make a verification pursuant to Section 2274.002 of the Texas Government Code, Contractor verifies that it (1) does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association.

7.12 Contractor is not a provider or affiliate as defined in Texas Government Code §2273.003(a).

8. INDEMNIFICATION.

8.1 **TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND ITS AGENTS AND EMPLOYEES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES, ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE WORK, PROVIDED THAT ANY SUCH CLAIM, DAMAGE, LOSS OR EXPENSE (1) IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR TO INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY INCLUDING THE LOSS OF USE RESULTING THEREFROM, AND (2) IS CAUSED IN WHOLE OR IN PART BY ANY NEGLIGENT ACT OR OMISSION OF THE CONTRACTOR, ITS AGENTS, EMPLOYEES AND SUBCONTRACTOR OF ANY TIER. SUCH OBLIGATION SHALL NOT BE CONSTRUED TO NEGATE, ABRIDGE, OR OTHERWISE REDUCE ANY OTHER RIGHT OR OBLIGATION OF INDEMNITY, WHICH WOULD OTHERWISE EXIST AS TO ANY PARTY OR PERSON, DESCRIBED IN THIS PARAGRAPH.**

8.2 **IN ANY AND ALL CLAIMS AGAINST THE OWNER OR ANY OF ITS AGENTS OR EMPLOYEES BY THE CONTRACTOR, ITS AGENTS, EMPLOYEES AND SUBCONTRACTOR OF ANY TIER, THE INDEMNIFICATION OBLIGATION UNDER THIS PARAGRAPH SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR UNDER WORKERS' COMPENSATION ACTS, DISABILITY BENEFITS ACTS OR OTHER EMPLOYEE BENEFIT'S ACTS.**

9. **TERMINATION FOR CAUSE.** In the event of a default by the Contractor, the Owner shall have the right to terminate the Contract for cause, by written notice effective ten (10) days, unless otherwise specified, after the date of such notice, unless the Contractor, within such ten (10) day period, cures such default, or provides evidence sufficient to prove to the Owner's reasonable satisfaction that such default does not, in fact, exist. In addition to any other remedy available under law or in equity, the Owner shall be entitled to recover all actual damages, costs, losses and expenses, incurred by the Owner as a result of the Contractor's default, including, without limitation, reasonable attorneys' fees, court costs, and prejudgment and post-judgment interest at the maximum lawful rate.

10. **TERMINATION WITHOUT CAUSE.** The Owner shall have the right to terminate the Contract, in whole or in part, without cause any time upon seven (7) days' prior written notice. Upon receipt of a notice of termination, the Contractor shall promptly cease all further work pursuant to the Contract, with such exceptions, if any, specified in the notice of termination. The Owner shall pay the Contractor, to the extent of funds appropriated or otherwise legally available for such purposes, for all goods delivered and services performed and obligations incurred prior to the date of termination in accordance with the terms hereof.

11. **DELAYS.** The Owner may delay scheduled delivery or other due dates by written notice to the Contractor if the Owner deems it is in its best interest without additional cost.

12. **GRATUITIES.** The Owner may, by written notice to the Contractor, cancel the Contract without liability if it is determined by the Owner that gratuities were offered or given by the Contractor or any agent or representative of the Contractor to any officer or employee of the Owner with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such contract. In the event the Contract is canceled by the Owner pursuant to this provision, the Owner shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by the Contractor in providing such gratuities.

13. **ASSIGNMENT.** The Contract shall be binding upon and inure to the benefit of the Owner and the Contractor and their respective successors and assigns, provided however, that no right or interest in the Contract shall be assigned by the Contractor without the prior written consent of the Owner. Any attempted assignment by the Contractor shall be void unless made in conformity with this paragraph. The Contract is not intended to confer rights or benefits on any person, firm or entity not a party hereto; it being the intention of the parties that there be no third party beneficiaries to the Contract.

14. **WAIVER.** No claim or right arising out of a breach of the Contract can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party. No waiver by either the Contractor or the Owner of any one or more events of default by the other party shall operate as, or be construed to be, a permanent waiver of any rights or obligations under the Contract, or an express or implied acceptance of any other existing or future default or defaults, whether of a similar or different character.

15. **MODIFICATIONS.** The Contract can be modified or amended only by a writing signed by both parties. No pre-printed or similar terms on any of the Contractor's invoices, orders or other documents shall have any force or effect to change the terms, covenants, and conditions of the Contract.

16. **INTERPRETATION.** The Contract is intended by the parties as a final, complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties or course of performance or usage of the trade shall be relevant to supplement or explain any term used in the Contract. Although the Contract may have been substantially drafted by one party, it is the intent of the parties that all provisions be construed in a manner to be fair to both parties, reading no provisions more strictly against one party or the other. Whenever a term defined by the Uniform Commercial Code, as enacted by the State of Texas, is used in the Contract, the UCC definition shall control, unless otherwise defined in the Contract.

17. **JURISDICTION AND VENUE.** The Contract is made under and shall be governed by the laws of the State of Texas. All issues arising from this Contract shall be resolved in the courts of El Paso County, Texas and the parties agree to submit to the exclusive personal jurisdiction of such courts. The foregoing, however, shall not be construed or interpreted to limit or restrict the right or ability of the Owner to seek and secure injunctive relief from any competent authority as contemplated herein.

18. **FINAL INSPECTION**

- 18.1 The Contractor shall demonstrate that the work completed meets the requirements of Owner. The Owner shall give final approval to all work performed.
- 18.2 Should any portion of the work fail to meet the requirements of the Owner, the Contractor shall repair or replace items failing to meet requirements until items can be demonstrated to comply.
- 18.3 Upon completion of jobs where materials are used, the Contractor shall submit proof of purchase (invoice) to Owner, or designated Project Manager, with each payment request.

19. **PLACE AND CONDITION OF WORK.** The Owner shall provide the Contractor access to the sites where the Contractor is to perform the services as required in order for the Contractor to perform the Work in a timely and efficient manner. The Contractor acknowledges that it has satisfied itself as to the nature of the Work requirements and specifications, the location and essential characteristics of the work site(s), the quality and quantity of materials, equipment, labor and facilities necessary to perform the services, and any other condition or state of fact which could in any way affect performance of the Proposer's obligations under the Contract. **THE CONTRACTOR HEREBY RELEASES AND HOLDS THE OWNER HARMLESS FROM AND AGAINST ANY LIABILITY OR CLAIM FOR DAMAGES OF ANY KIND OR NATURE IF THE ACTUAL SITE OR SERVICE CONDITIONS DIFFER FROM EXPECTED CONDITIONS.**

SECTION 01010: COVERED SITES AND CONTACTS

Austin High School
3500 Memphis Ave
El Paso, Texas 79930

Project Manager
Manny Rivera
jmriver2@episd.org
915-230-2311

Executive Director for Facilities and Construction
Irene Ramirez
idramirez@episd.org
(915) 230-2291



EL PASO
INDEPENDENT
SCHOOL DISTRICT

Facilities & Construction

Finance and Operations
Facilities & Construction

RECORD OF WORKER/TRADESMAN INTERVIEW

Sensitive information. The information collected on this form is considered sensitive and is protected by the Privacy Act. The Privacy Act requires that these records be maintained with appropriate administrative, technical, and physical safeguards to ensure their security and confidentiality. In addition, these records should be protected against any anticipated threats or hazards to their security or integrity which could result in substantial harm, embarrassment, inconvenience, or unfairness to any individual on whom the information is maintained.

Project Number:	Prime Contractor:
Project Name	Employer (Contractor or Subcontractor)
Name of Worker	Home Address and Zip Code
Date first worked on project;	Average no. of hours worked on project daily:
Your hourly pay rate \$	Your Job Classification
Your Duties:	
Tools or equipment used:	
Do duties observed by interviewer conform to Job Classification trade? Circle One: Yes No (If no, please explain)	
Remarks (Continue on back if necessary):	
Name of Foreman on project site:	
Signature of Worker:	Date of Interview:
Payroll Examination: Remarks (Continue on back if necessary):	
Date: PM Initials:	

Worker Interview form

SCHEDULE 1

Certified Payroll

Company: _____

Pay Period: _____ to _____

	Employee	SSN	Job Title	Wage
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
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21				
22				
23				
24				
25				

SCHEDULE 2

EMPLOYEE'S STATEMENT OF WORK

CLASSIFICATION

I, _____, DO HEREBY CERTIFY THAT I AM ENGAGED IN
THE FOLLOWING WORK CLASSIFICATION(S):

(NAME AND/OR TITLE OF WORK CLASSIFICATION)

FURTHERMORE, I DO AGREE TO THE WAGE RATE OF \$ _____ PER HOUR.

(SIGNATURE OF EMPLOYEE)

(DATE SIGNED)

(PRINT OR TYPE THE NAME OF THE ABOVE EMPLOYEE)

EMPLOYER'S NAME, ADDRESS & PHONE NO.:
(CONTRACTOR/SUBCONTRACTOR COMPANY)

() _____

EMPLOYER/COMPANY REPRESENTATIVE
SIGNATURE:

(OWNER, PARTNER, OR OFFICER OF COMPANY)

DATE

SCHEDULE 3

SCOPE OF WORK AND SCHEDULE

Austin High School
3500 Memphis Ave
El Paso, Texas 79930

Owner: El Paso Independent School District
Project: Austin HS Driveway Ramp Improvements
Date of Proposal: September 15, 2023

Scope of Work:

Exterior work consisting of widening an existing vehicular concrete ramp, the demolition of concrete and construction of concrete retaining wall, and concrete paving. The Scope of the Work is as detailed in the Plans and Specifications included at P&S 1-76. To the extent of any conflict between the Plans and Specifications and the Contractor's Proposal of September 15, 2023, the Plans and Specifications take precedence and control.

Sub Total

1. Contractor's direct cost total \$154,531.00
2. Payment and Performance bond \$4,147.40
3. Builder's Risk \$1,200.00
- 4. Proposed Price \$159,878.40**

The dollar amount will not be exceeded unless a CO is requested.

Preliminary Schedule

120 calendar days total anticipated duration from Notice to Proceed to Substantial Completion.

Final Completion shall be reached within 30 calendar days of Substantial Completion

TIPS RCSP 230602 Pavement and Other Related Services Requirements

Contractor represents and warrants that the Scope of Work and Contract is in and will remain in compliance with TIPS Interlocal Purchasing System, RCSP 230602 Pavement and Other Related Services Contract (TIPS CONTRACT).

The Contractor further represents, covenants, and warrants to the Owner that this Contract meets all requirements of and Contractor will submit all required documents pursuant to the TIPS CONTRACT in the performance of this contract.



PROPOSAL SUBMITTED TO:
El Paso Independent School District
 STREET
1100 N. Stanton St.
 CITY, STATE, AND ZIP CODE
El Paso, Texas 79902

WORK PROPOSAL

DATE SENT: September 15, 2023	PROPOSAL NO.: PR23-74
ATTENTION: Manny Rivera, Project Manager	
JOB LOCATIONS 3500 Memphis Ave, El Paso, TX 79930	
JOB NAME Driveway Ramp	
PHONE (915) 252-3386	FAX/ EMAIL jmriv2@episd.org

DESCRIPTION OF WORK:

We propose to furnish all labor, material, and equipment necessary for the following work; as per plans by WSP USA dated August 21, 2023:

SWP3

- Provide and install fence as per plans
- Provide and install rock for the construction exit
- Remove silt fence

Demolition

- Remove rock retaining wall
- Saw cut concrete and asphalt paving
- Demolition of concrete and asphalt paving
- Load and haul off debris from the premises

Retaining Wall

- Footing excavation and trimming
- Concrete footing as per plans
- Wall formwork and necessary accessories
- Concrete retaining wall reinforced as per plans
- Perforated PVC pipe along the retaining wall
- Stripping of formwork
- Backfill behind retaining wall

Paving

- Subgrade preparation for concrete paving
- Reinforcing steel for concrete paving
- Concrete paving 6" thick 4500-PSI reinforced with #4 rebar at 12" o.c.e.w.
- Contraction joints and dowels as per plans
- Apply curing compound
- Subgrade preparation for asphalt paving
- 6" Base course installation
- Provide and install 2" HMA paving

Pipe Bollards

- Provide and install 6" steel pipe bollards two each

Construction Cost 154,531.00
PP Bonds \$ 4,147.40
Builder's Risk \$ 1,200.00
Grand Total \$159,878.40

Exclusions:

1. Any other material or work not directly expressed in this proposal.

Should you have any questions, do not hesitate to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'F. Guillen', is positioned above the printed name.

Francisco Guillen, P.E.

Keystone Contractors & Engineers

Office: (915) 562-4159 x 23

Fax: (915) 503-2235

Email: fguillen@keystone-ce.net

EPISD Construction and Facilities

Date: 09/15/2023

Year 2023 Quarter 3

KEYSTONE

RSM means data
from GERMAN®

LineNumber	Description	Quantity	Unit	Total Incl. O&P	Ext. Total Incl. O&P
032053403950	Structural concrete, in place, continuous strip footing (2000 psi), 36" wide x 12" deep, reinforced, includes forms(4 uses), grade 60 rebar, concrete (Portland cement Type 1), placing and finishing	40.00	C.Y.	\$310.01	\$12,400.40
312314130050	Excavating, trench or continuous footing, common earth, 2/8 C.Y. excavator, 1' to 4' deep, excludes sheeting or dewatering	75.00	B.C.Y.	\$11.30	\$847.50
312314132200	Excavating, trench or continuous footing, hardpan, firm soils and bottom for concrete pour, excludes sheeting or dewatering	650.00	S.F.	\$3.31	\$2,151.50
312321170170	Fill, from stockpile, 130 HP, 2-1/2 C.Y., 300' haul, spread fill, with front-end loader, excludes compaction	182.00	L.C.Y.	\$4.17	\$758.94
Category: PR23-74 Austin HS Driveway Ramp > Retaining Wall > Foundation Subtotal					\$26,586.50
Category: PR23-74 Austin HS Driveway Ramp > Retaining Wall > Concrete Wall					
031113052000	C.I.P. concrete forms, wall, job built, plywood, to 8' high, 1 use, includes erecting, bracing, stripping and cleaning	1,760.00	SFCA	\$12.77	\$22,475.20
03151300350	Expansion joint, poured asphalt, plain, 1" x 2"	240.00	L.F.	\$5.35	\$1,284.00
03211140702	Reinforcing steel, in place, walls, #3 to #7, A615, grade 60, incl labor for accessories, excl material for accessories	7,000.00	Lb.	\$1.12	\$7,840.00
032111402000	Reinforcing steel, unload and sort, add to base	3.50	Ton	\$54.54	\$190.89
032053404200	Structural concrete, in place, free-standing wall (2000 psi), 8" thick x 8' high, includes forms(4 uses), grade 60 rebar, concrete (Portland cement Type 1), placing and finishing	36.00	C.Y.	\$524.57	\$18,886.52
079213200125	Joint sealants, caulking and sealants, bulk acrylic latex, 3/4" x 3/4", in place	172.00	L.F.	\$3.44	\$591.68
Category: PR23-74 Austin HS Driveway Ramp > Retaining Wall > Concrete Wall Subtotal					\$51,366.29
Category: PR23-74 Austin HS Driveway Ramp > Paving > Concrete Paving					
031513300100	Expansion joint, cold, layered, 24 ga. X 5-1/2" high, includes stakes	120.00	L.F.	\$4.16	\$499.20
031513302000	Expansion joint, premolded, bituminous fiber, 1/2" x 6"	120.00	L.F.	\$1.63	\$195.60
032105101220	High chains, for reinforcing steel, individual (HC), plain steel, 8' high, includes material only	15.00	C	\$274.64	\$4,119.60
032105101220	Concrete pavement highway, for small irregular areas, add	1.00	%	\$27.46	\$411.96
032111406002	Reinforcing steel, in place, sub on grade, #3 to #7, A615, grade 60, incl labor for accessories, excl material for accessories	2,000.00	Lb.	\$1.24	\$2,480.00
032111406002	Concrete pavement highway, for small irregular areas, add	1.00	%	\$0.46	\$96.00
032111402000	Reinforcing steel, unload and sort, add to base	1.00	Ton	\$54.54	\$54.54
032111402430	Reinforcing steel, in place, dowels, deformed, 2' long, #6, A615, grade 60	150.00	Ea.	\$5.11	\$766.50
032111409000	Reinforcing steel, in place, minimum labor/equipment charge, A615, grade 60	1.00	Job	\$104.64	\$104.64
032921130300	Concrete surface treatment, curing, sprayed membrane compound	7.00	C.S.F.	\$23.58	\$165.06
312214101050	Final grading, fine grade for small irregular areas, to 15,000 S.Y.	80.00	S.Y.	\$3.69	\$295.20

RSMeans data
from BERQUAN

LineNumber	Description	Quantity	Unit	Total Incl. O&P	Ext. Total Incl. O&P
321313250020	Concrete pavement highway, 4500 psi, fixed form, unreinforced, 12" pass, 6" thick, includes joints, finishing, and curing	80.00	S.Y.	\$36.47	\$2,917.60
321313250020	Concrete pavement highway, for small irregular areas, add	1.00	%	\$6.84	\$547.36
Category: PR23-74 Austin HS Driveway Ramp > Paving > Concrete Paving Subtotal					\$13,525.26
Category: PR23-74 Austin HS Driveway Ramp > Paving > Asphalt Paving					
312216100012	Fine grading, finish grading, small area, to be paved with grade	82.00	S.Y.	\$6.52	\$534.64
312216109000	Fine grading, hand grading, includes compaction, minimum labor/equipment charge	6.00	Job	\$299.40	\$1,796.40
321123230200	Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 9" deep	82.00	S.Y.	\$12.89	\$1,056.90
321216131000	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 2" thick, no hauling included	0.00	S.Y.	\$71.75	\$0.00
321216133000	Plant-mix asphalt paving, pre-treatment for paving, prime coat, emulsion, 0.30 gallons/S.Y., 1000 S.Y.	82.00	S.Y.	\$3.55	\$291.10
321216133100	Plant-mix asphalt paving, pre-treatment for paving, tack coat, emulsion, 0.10 gallons/S.Y., 1000 S.Y.	82.00	S.Y.	\$1.80	\$147.60
321216141000	Asphaltic concrete paving, parking lots & driveways, hot mix, 2" thick, fill pot holes, no asphalt hauling included	740.00	S.F.	\$1.62	\$1,190.80
Category: PR23-74 Austin HS Driveway Ramp > Paving > Asphalt Paving Subtotal					\$5,025.52
Category: PR23-74 Austin HS Driveway Ramp > Pipe Bollards					
321713131400	Metal parking bumpers, pipe bollards, concrete filled/painted, 8" L x 4" D hole, 8" diam.	2.00	Ea.	\$670.72	\$1,341.44
Category: PR23-74 Austin HS Driveway Ramp > Pipe Bollards Subtotal					\$1,341.44

Line Number	Description	Quantity	Unit	Total Incl. O&P	Ext. Total Incl. O&P
Subtotal					\$116,627.36
General Contractor's Markup on Subs				0.00%	\$0.00
Subtotal					\$116,627.36
General Conditions				0.00%	\$0.00
Subtotal					\$116,627.36
General Contractor's Overhead and Profit				32.50%	\$37,903.89
Grand Total					\$154,531.25



2020 PREVAILING WAGE RATES BUILDING

CLASSIFICATION	BASE WAGE	BENEFITS	HOURLY PREVAILING WAGE RATE	(8 HOURS) PER DIEM WAGE RATE
Asbestos/Lead Abatement/Mold Remediation	31.51	12.06	43.57	348.56
Automatic Fire Sprinkler Fitter, Certified	30.64	21.68	52.32	418.56
Block, Brick, and Stone Mason	17.97	0.00	17.97	143.76
Carpenters – Acoustical Ceiling Installation	17.36	0.00	17.36	138.88
Carpenter – Rough	17.64	0.00	17.64	141.12
Carpenter – All Other Work	17.40	0.00	17.40	139.20
Caulker / Sealers	11.29	0.00	11.29	90.32
Cement and Concrete Finishers	16.30	0.00	16.30	130.40
Commercial Truck Driver	14.75	0.00	14.75	118.00
Communication/Security Technician	16.50	2.12	18.62	148.96
Crane and Heavy Equipment Operator	31.05	0.00	31.05	248.40
Door & Hardware Specialist	12.00	1.35	13.35	106.80
Drywall and Ceiling Tile Installers	14.40	0.00	14.40	115.20
Drywall Finishers & Tapers	15.55	0.00	15.55	124.40
Electrician	23.36	3.40	26.76	214.08
Elevator Installers and Repairers	31.35	15.10	46.45	371.60
Fence Erectors – Include with Skilled Labor	10.00	0.00	10.00	80.00
Floor Layers- Carpet and Resilient	12.87	0.00	12.87	102.96
Floor Layers- Specialty	13.00	0.00	13.00	104.00
Floor Layers - Wood	11.50	0.00	11.50	92.00
Glaziers	15.86	1.00	16.86	134.88
Hazardous Materials Removal Workers	10.00	0.00	10.00	80.00
Heating, Air Conditioning and Refrigeration Service Technician	31.14	12.43	43.57	348.56
Insulation Workers – Mechanical	31.26	11.96	43.22	345.76
Irrigator – Landscape, Certified	15.28	0.00	15.28	122.24
Laborer	13.13	0.58	13.71	109.68
Locksmith	12.00	1.35	13.35	106.80
Mechanic	17.00	0.00	17.00	136.00
Painters - Building	13.86	0.00	13.86	110.88
Paper Hanger	14.00	0.00	14.00	112.00
Pipe Layer (Utility)	18.00	0.00	18.00	144.00
Pipe Fitters and Steamfitters	23.53	9.02	32.55	260.40
Plaster, Stucco, Lather and EIFS Applicator	16.82	0.00	16.82	134.56
Plumber/ Medical Gas Installer	31.39	10.77	42.16	337.28
Reinforcing Iron and Rebar Workers	22.69	0.00	22.69	181.52
Roofers	16.00	0.00	16.00	128.00
Scaffolding Erector	13.69	0.00	13.69	109.52
Sheet Metal Workers	27.16	0.00	27.16	217.28
Structural Iron and Steel Workers / Metal Building Erector	25.57	13.24	38.81	310.48
Tile Setters	13.86	0.00	13.86	110.88

APPROVED 12/14/2020

2020 BUILDING DEFINITIONS

1	Asbestos/Lead Abatement/Mold Remediation	Assembles work platform and seals off work area, using plastic sheeting and duct tape. Positions mobile decontamination unit or portable showers at entrance of work area. Positions portable air evacuation and filtration system inside work area. Cuts and scrapes asbestos, mold or paint from surfaces, using knife and scraper. Assists in demolition and deconstruction activities of buildings. Shovels asbestos, mold or paint into plastic disposal bags and seals bags, using duct tape. Cleans work area of loose asbestos, mold or paint, using vacuum, broom, and dust pan. Places asbestos, mold or paint in disposal bags and seals bags, using duct tape, loads bags into truck. Cleans and maintains tools, sampling equipment and lab equipment. Responsible for keeping site and grounds clean and neat. Performs daily equipment checks. Picks up necessary supplies and tools from warehouse as directed. Loads and unloads scrap materials into trucks and roll off boxes. Performs work safely in accordance with departmental safety procedures and operates equipment safely. Reports any unsafe work condition or practice to supervisor. Performs other related and non-related duties as assigned.
2	Automatic Fire Sprinkler Fitter, Certified	Sprinkler Fitters specialize in piping associated with fire sprinkler systems. These types of systems are required to be installed and maintained in accordance with strict guidelines, usually National Fire Protection Association (NFPA) standards, in order to maintain compliance with building and fire codes. Sprinkler Fitters work with a variety of pipe and materials including plastic, copper, steel, cast iron, and ductile iron. The fire suppression piping may contain: water, air, antifreeze, fire retardant foam, gas, or chemicals for hood systems. Sprinkler systems installed by Sprinkler Fitters can include but not limited to: underground supply, standpipes, fire pumps as well as overhead piping systems.
3	Block, Brick, and Stone Mason	Lay and bind building materials, such as: brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct, or repair walls, partitions, arches, sewers, and other structures. Classify installers of mortarless segmental concrete masonry wall units. Constructs partitions, fences, walks, fireplaces, chimneys, smokestacks, et cetera using stone, marble, granite, slate. Cutting, grouting, and pointing of materials listed above which is necessary shall be part of this classification.
4	Carpenters – Acoustical Ceiling Installation	Construct, erect, install or repair acoustical ceiling grid, ceiling tile, and other items laid in acoustical grid.
5	Carpenter – Rough	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; wood stairways, window and door frames. May also install cabinets, and siding. Include brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways to control the proper circulation of air through the passageways.

6	Carpenter – All Other Work	Construct, erect, install or repair cabinets and other fixtures or structures requiring a high level of workmanship. Includes Cabinetmakers and Bench Carpenters – cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut or shape lumber or to fabricate parts for wood products. Perform related duties such as trim work.
7	Caulker/Sealers	Applies water proofing agents or caulk to a variety of structures and materials.
8	Cement and Concrete Finishers	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; use saws to cut expansion joints. Classify installers of mortarless segmental concrete wall units.
9	Commercial Truck Driver	Drive a truck, van or tractor-trailer combination to transport and deliver goods, or materials in liquid, loose, or packaged form. May be required to unload truck.
10	Communication/Security Technician	Set-up, re-arrange, or remove switching and dialing equipment used in central offices. Service or repair telephones and other communication equipment on customers' property. May install equipment in new locations or install wiring and telephone jacks in buildings under construction. Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Exclude "Electricians" who do a broad range of electrical wiring.
11	Crane and Heavy Equipment Operator	A worker who operates a crane or other types of heavy equipment to hoist and move materials, raise and lower heavy weights and perform other related operations. May be crawler type or rubber-tired. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
12	Door and Hardware Specialist	Installs or repairs doors, hardware and accessories. Are responsible for the installation of contract commercial hardware and custom architectural grade wood doors, steel doors and frames for all Prevailing Wage jobs. Shall be trained by their employer's, employer's apprenticeship, or in factory training classes in the proper methods and techniques and requirements for the installation of Architectural Grade commercial wood and metal doors, frames and hardware in conformance with all local, state, and federal code.
13	Drywall and Ceiling Tile Installers	Apply plasterboard, or other wallboard to ceilings, or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of sound-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Includes metal stud framing. Exclude "Carpet Installers", "Carpenters – Acoustical Ceiling Installation", and "Tile and Marble Setters".
14	Drywall Finishers and Tapers	Seal joints between plasterboard or other wallboard, including bedding and texturing, to prepare wall surface for painting or papering.

15	Electrician	Plan and execute the layout and installation of electrical conduit, switch panels, buss bars, outlet boxes, electrical wires and cables, lighting standards, lighting fixtures, receptacles, switches, and other electrical devices and apparatus necessary for the complete electrical installation. To include the installation of cabling, wire, conduits and end devices for Temperature Control, Building Automation, and Energy Management Systems, et cetera. Includes installation of photovoltaic solar panels.
16	Elevator Installers and Repairers	Assemble, install, repair, or maintain electric or hydraulic freight or passenger conveyances including but not limited to elevators, escalators, dumbwaiters, moving walks and wheelchair lifts.
17	Fence Erectors - Include with Skilled Labor	Erect and repair metal and wooden fences and fence gates around highways, industrial establishments, residences, or farms, using hand and power tools. Excludes rock and stone fences.
18	Floor Layers – Carpet and Resilient	Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors. Lay and install carpet from rolls, tiles or blocks on floors. Install padding and trim flooring materials. Installs variety of soft floor materials including vinyl and VCT. Exclude wood floors and specialty floors.
19	Floor Layers - Specialty	Prepares surface, installs and finishes specialty floor material such as manufactured or engineered and laminated wood.
20	Floor Layers - Wood	Install, scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish to include gymnasium and bowling alleys.
21	Glaziers	Installs glass in windows skylights, store fronts and display cases, or on surfaces such as: building fronts, interior walls, ceilings and table tops. The installation, setting, cutting, preparing, fabricating, distributing, handling or removal of the following: glass and glass substitutes used in place of glass, pre-glazed windows, retrofit window systems, mirrors, curtain wall systems, window wall systems, cable net systems, canopy systems, structural glazing systems, unitized systems, interior glazing systems, photovoltaic panels and systems, suspended glazing systems, louvers, skylights, entranceway systems including doors and hardware, revolving and automatic door systems, patio doors, store front systems including the installation of all metals, column covers, panels and panel systems, glass hand rail systems, decorative metals as part of the glazing system, and the sealing of all architectural metal and glass systems for weatherproofing and structural reasons, vinyl, molding, rubber, lead, sealants, silicone and all types of mastics in wood, iron, aluminum, sheet metal or vinyl sash, doors, frames, stone wall cases, show cases, book cases, sideboards, partitions and fixtures. Performs other related duties.

22	Hazardous Materials Removal Workers	Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, contaminated soil, mold, et cetera. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.
23	Heating, Air Conditioning and Refrigeration Service Technician	Repair and service heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, heating stoves, and air handlers. (Installation of systems is performed by sheet metal worker). Includes HVAC mechanic.
24	Insulation Workers – Mechanical	This work includes the preparation, alteration, application, removal, hauling, erection, assembling, molding, spraying, pouring, mixing, hanging, adjusting, repairing, dismantling, reconditioning, maintenance, finishing, and/or weatherproofing of cold or hot thermal insulations with such materials as may be specified when those materials are to be installed for thermal purposes in voids, or to create voids, or on either piping, fittings, valves, boilers, ducts, flues, tanks, vats and equipment, or on any hot or cold surfaces for the purpose of thermal control or to be installed for sound control purposes mechanical devices, equipment, piping, surfaces related in an integral way to the insulation of such mechanical devices, equipment and piping. This work also includes all labor connected with insulation for; temperature control, personnel protection, safety and/or prevention of condensation. This work also includes all labor connected with hauling, distribution and cleanup of materials on the job premises. All thermal tape, pads, metered fittings (insulation, metal or plastic), batts and lags.
25	Irrigator- Landscape, Certified	Certified by TCEQ to install watering systems in various sizes and grades of lawn in order to maintain sufficient pressure and to insure even dispersal of water.
26	Laborer	Performs manual duties in all phases of construction. Demolition (interior and exterior), Flagging and Traffic Control, General Clean-Up, Air and Power Tool Operators (Including chipping guns, jackhammers and tampers), all material handling and clean-up, except refractory, chute/hose operator, raking, shoveling and vibrating, raking, shoveling, luting, ironing, dumping and spreading, trenching, material handling, back filling (*Equipment Operators Incidental to Laborers' scope of work). Landscape or maintain grounds of property using equipment as needed. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler repair, and installation of mortarless segmental concrete masonry wall units. Does not ordinarily perform work permitting exercise of independent judgment or without close direction by other workers.
27	Locksmith	Self-explanatory.

28	Mechanic	Maintains and repairs construction tools and equipment.
29	Painters - Building	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. Exclude "Paperhangers."
30	Paper Hanger	Measures, cuts, and hangs wallpaper and Fiber Reinforced Paneling.
31	Pipe Layer (Utility)	Installs concrete, clay, steel, ductile iron, plastic, corrugated pipe and any other type of pipe for storm drainage, water lines, gas lines and sanitary sewer lines. Lays underground communication and electrical ducts. May install and set electrical ground boxes, hand holes, manholes, inlets and other structures. Caulks joints, makes threaded and flanged connections. Installs valves and other accessories. Performs other related duties.
32	Pipe Fitters and Steamfitters	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes pressurized lines and flow lines for gas, air, and oil found in industrial settings.
33	Plaster, Stucco, Lather, and EIFS Applicator	Apply interior or exterior plaster, stucco, or similar materials. May also set ornamental plaster. Applies acoustical plaster, interior and exterior plastering of stone imitation or any patented materials when cast. Molds and sets ornamental plaster and trim and runs ornamental plaster cornice and molding.
34	Plumbers/ Medical Gas Installer	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Assemble, install, alter, and repair pipelines or pipe systems that carry medical gases or liquids. Specialized training and certification required.
35	Reinforcing Iron and Rebar Workers	Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Includes post-tensioning. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools.
36	Roofers	Cover roofs of structures with shingles, tile, slate, asphalt, aluminum, wood, metal and related materials. May spray roofs, sidings, and walls with material to bind or seal sections of structures. Includes metal and membrane roofs.

37	Sheet Metal Workers	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, seal the system, pressure test and test and balance, control boxes, drainpipes, architectural sheet metal, hangers, brackets, used in the installation of sheet metal, and installs grills, registers, and furnace casings. Work may involve any of the following: setting-up and operating fabricating machines to cut, bend, and straighten sheet metal, operating soldering equipment to join sheet metal parts; inspecting, assembling, and smoothing seams and joints of burred surfaces, including metal flashings, gutters, canopies, soffits, louvers, skylights and custom metal roofs. Installs warm air furnaces except where necessary piping for gas, or oil is performed under the plumbing and pipefitting classification. Include sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes. Fire life safety, damper inspection, stairwell pressurization. May install other heating and cooling devices which are in connection with duct systems.
38	Structural Iron and Steel Workers/Metal Building Erector	Rigging, raise, place, and unite iron or steel, prefabricated metal buildings precast concrete, precast "tilt-up" panels, concrete and steel bridge members, concrete decking, ornamental iron, hand rails, stairs, curtain wall/glass framework, girders, columns, beams, and other structural members to form completed structures or structural frameworks using hand tools, power tools, and hoisting equipment. Erects frame of building, using hoist. Bolts steel frame members together. Attaches wire and insulating materials to framework. Attaches sheet metal panels to framework including standing seam sheets. Installs and trims sheet metal on prefabricated metal buildings, using cutting torch, power saw, and tin snips. Rigging of heavy equipment, assembly and disassembly of cranes. May erect metal storage tanks. Exclude "Reinforcing Iron and Rebar Workers".
39	Tile Setters	Apply hard tile, terrazzo tile and veneer to walls, floors, and ceilings. Includes surface preparation as necessary.
40	Scaffolding Erector	Erection of a temporary elevated platform (both supported and suspended) and its supporting structure (including points of anchorage) to be used for supporting employees or material or both.

- **Welder** - Receives rate prescribed for craft performing operation to which welding is incidental.
- **Fork Lift and Man Lift (boom and scissor)** - Receives rate prescribed for craft performing operation to which operation of this equipment is incidental.



2020 PREVAILING WAGE RATES HEAVY / HIGHWAY

CLASSIFICATION	BASE WAGE PER HOUR	TOTAL FRINGES PER HOUR	HOURLY PREVAILING WAGE RATE	PER DIEM WAGE RATE
Asphalt Distributor Operator	16.07	2.78	18.85	150.80
Asphalt Paving Machine Operator / Spreader Box Operator	14.62	1.42	16.04	128.32
Asphalt Raker	14.30	1.44	15.74	125.92
Backhoe Operator	16.43	1.25	17.68	141.44
Concrete Finishers (Paving and Structures)	15.58	1.41	16.99	135.92
Crane Operator, Lattice Boom	17.50	0.00	17.50	140.00
Crane Operator, Hydraulic	20.00	0.00	20.00	160.00
Electrician	23.62	1.97	25.59	204.72
Excavator Operator	18.61	1.52	20.13	161.04
Form Builder/Setter	17.84	0.75	18.59	148.72
Form Setter (Paving and Curb)	12.86	0.00	12.86	102.88
Front End Loader	16.28	1.09	17.37	138.96
Laborer	13.53	1.16	14.69	117.52
Laborer (Skilled)(Utility)	15.49	0.73	16.22	129.76
Mechanic	17.50	0.00	17.50	140.00
Milling Machine Operator	24.96	0.00	24.96	199.68
Motor Grader Operator (Fine)	20.76	2.41	23.17	185.36
Pavement Marking Machine Operator	16.28	1.09	17.37	138.96
Pipe Layer (Utility)	15.24	2.69	17.93	143.44
Reinforcing Steel Setter (Structure and Paving)/ Structural Steel Worker	17.00	0.00	17.00	136.00
Rock Mason	14.00	0.00	14.00	112.00
Roller Operator	14.96	2.32	17.28	138.24
Servicer	14.33	0.00	14.33	114.64
Truck Driver, Single Axle	13.56	0.00	13.56	108.48
Truck Driver, Tandem Axle	17.43	0.93	18.36	146.88
Utility Operator Grade 1	14.32	0.76	15.08	120.64
Utility Operator Grade 2	15.31	1.46	16.77	134.16
Welder, Certified/ Structural Steel Welder	20.00	0.00	20.00	160.00

APPROVED 12/14/2020

2020 HEAVY / HIGHWAY DEFINITIONS

1	Asphalt Distributor Operator	Drives distributor truck, sets spray bars and operates valves and levers to control distribution of bituminous material for highway surfacing. May oil, grease or otherwise service and make adjustments to equipment as needed. Performs other related duties.
2	Asphalt Paving Machine Operator/Spreader Box Operator	Operates paving machine that spreads and levels asphaltic concrete on highway. Controls movement of machine, raises and lowers screed, regulates width of screed. Operates spreader box by adjusting hopper and strike-off blade so that gravel, stone or other material may be spread to a specific depth on road surface during seal coat and surface treatment operations. May oil, grease, service and make adjustments to equipment as needed. Performs other related duties.
3	Asphalt Raker	Distributes asphaltic materials evenly over road surface by hand-raking and brushing material to correct thickness; may control screed to regulate width and depth of materials; directs Laborers (skilled and unskilled) when to add or take away material to fill low spots or to reduce high spots.
4	Backhoe Operator	Operates a rubber-tired machine mounted with a backhoe bucket on one end and a loader bucket on the other end. Used for excavating ditches and structures, laying pipe and precast concrete structures, carrying material in the loader bucket, and general excavation and backfill. May also be equipped with hydraulic attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
5	Concrete Finisher (Paving and Structures)	Finishes the exposed surfaces of fresh concrete paving, median barrier and every element of concrete structures. Operates bridge deck finishing machine. Forms and finishes edges and joints. Finishes concrete curbs and gutters. Finishes exposed surface of concrete after forms have been removed by patching imperfections with fresh concrete, rubbing surface with abrasive stone, and directing others in removing excess or defective concrete with power tools. Performs other related duties.
6	Crane Operator, Lattice Boom	A worker who operates a lattice boom type crane to hoist and move materials, raise and lower heavy weights and perform other related operations. May be crawler type or rubber tired. May include placement of rock riprap, clamshell, dragline, pipe and pile driving operations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
7	Crane Operator, Hydraulic	A worker who operates a hydraulic telescoping boom type crane to hoist and move materials, raise and lower heavy weights and perform other related operations. May be crawler type or rubber-tired. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

8	Electrician	Plan and execute the layout and installation of electrical conduit, switch panels, buss bars, outlet boxes, electrical wires and cables, lighting standards, lighting fixtures, receptacles, switches, and other electrical devices and apparatus necessary for the complete installation of wiring systems, works on overhead distribution systems and underground distribution systems. Includes installation of photovoltaic solar panels.
9	Excavator Operator	Operates a crawler or rubber-tired machine mounted with an excavator bucket. Used for excavating ditches and structures, laying pipe and precast concrete structures, loading trucks and placing rock riprap. May also be equipped with various hydraulic attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
10	Form Builder/Setter	Works from plans to build, assemble, fit together, align, plumb, and set in place forms for molding concrete structures. Forms may be wood, steel, aluminum, fiberglass or any other type of material. Checks forms while concrete is being placed. May install miscellaneous materials integral to concrete structures. May set precast concrete elements. Prepares for slip forming traffic rail and median barrier. May install permanent metal deck forms. May work with power tools. Performs other related duties. Includes guardrail installation.
11	Form Setter (Paving and Curb)	Fits together, aligns and sets to grade metal and wooden forms for placement for concrete paving and curbs. Works with survey crew to set stringline for paving, curb and gutter and curb. Performs other related duties.
12	Front End Loader	Operates a rubber-tired, skid steer or crawler type tractor with an attached scoop type bucket on front end. Machine is used to load materials from stockpiles, excavation, charging batch plants, loading and unloading trucks. May be used with attachments in lieu of the bucket. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
13	Laborer	A general term used on construction work covering many unskilled classifications requiring work of a physical nature. Performs a variety of work ranging from pick and shovel work to cleaning up lumber with hammer, shoveling and placing concrete, uses air tools, under the supervision of qualified personnel. Cleans concrete joints and fills joints with sealing compound from bucket or with hose and nozzle from a central source, applies coating of oil to inside face of forms and strip forms, unloads and transports reinforcing steel, cures newly poured concrete, assists pipelayers, works with dirt crew keeping construction layout stakes out of the way of dirt-moving equipment. May fine grade excavation and ditches, shovels hot asphalt material. May use power tools and other necessary equipment in demolition work under the supervision of qualified personnel. Does not ordinarily perform work permitting exercise of independent judgment or without close direction by other workers. Installs and maintains erosion control. Performs other related duties.

14	Laborer (Skilled) (Utility)	Performs a variety of manual duties, usually working in a utility capacity by working on multiple projects and tasks where demands require workmen with varied experience and ability to work without close direction. Unloads and transports reinforcing steel. Directs laborers in pouring concrete. Erects trench shoring and bracing. Installs, operates, and maintains de-watering systems. May assist equipment operators in positioning machines, verifying grades and signaling operators to dumping positions to maintain grades as directed. Uses power tools and air tools. May work as lead man in a labor crew. Is more or less a general utility construction worker. May be a second step in learning a skill. Includes Concrete/Gunite Pump Operator, Concrete Saw Operator, Fence Erector, Flagger, and Sign Erector. Performs other related duties.
15	Mechanic	Assembles, assist set up, adjusts and maintains and repairs all types of construction equipment and trucks. May perform the duties of a welder in repair of equipment. Performs other related duties.
16	Milling Machine Operator	Operates power-driven milling machine that planes material off the roadbed and discharges the material into a hauling unit or a window. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
17	Motor Grader Operator (Fine)	Operates motor grader. Performs many of the same duties of Motor Grader, Rough, but in addition performs finish grade work to blue tops or other close specification control. This work is subject to strict inspection and must conform closely to specifications. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
18	Pavement Marking Machine Operator	Operates a machine used in laying paint stripes or markers on all types of paving. Loads of machine with appropriate materials and may walk or ride on machine. May oil, grease or otherwise service and make necessary adjustments to equipment needed. Perform other related duties.
19	Pipelayer (Utility)	Installs concrete, clay, steel, ductile iron, plastic, corrugated pipe and any other type of pipe for storm drainage, water lines, gas lines and sanitary sewer lines. Lays underground communication and electrical ducts. May install and set electrical ground boxes, hand holes, manholes, inlets and other structures. Caulks joints, makes threaded and flanged connections. Installs valves and other accessories. Performs other related duties.
20	Reinforcing Steel Setter (Structure and Paving)/ Structural Steel Worker	Works from plans to lay out and install reinforcing steel within forms or in mats of concrete paving. Erects and places reinforcing steel and fabricated structural steel members, such as girders, plates, diaphragms, lateral bracing, and unites them permanently to form a completed structural steel unit, including reinforcing members. Fastens steel members together by welding or bolting. May include dismantling and erecting large units of equipment. Gives direction to reinforcing steel worker apprentice or utility laborers. Performs other related duties.

21	Rock Mason	Constructs partitions, fences, walls, using rock. Cutting, grouting and pointing of materials listed above which is necessary shall be part of this classification. May also build or repair rock retaining walls, cutting or placing of rock in mortar or other similar material.
22	Roller Operator	Operates a self-propelled machine with either steel wheels or pneumatic tires which is used to compact and smooth bituminous and flexible base materials and compact earth fills, subgrade, and all other types of materials. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.
23	Servicer	Drives a truck which carries various fuels, oils, greases and filters. Must have knowledge of and is responsible for the correct oiling and greasing and changing of filters on equipment according to manufacturers' specifications. Uses compressed air grease guns, wrenches and other tools. May make adjustments to clutches, brakes and other mechanical items. Keeps record of service for preventive maintenance records. May require a Commercial Driver's License if driving truck on public highways. Performs other related duties.
24	Truck Driver, Single Axle	Drives a light capacity truck for transporting loads of construction material. The truck is of single rear axle type, may have various kinds of beds attached such as dump, flat bed, tank, etc. May require CDL license for driving on highway. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.
25	Truck Driver, Tandem Axle	Drives a tandem axle powered vehicle. Hauls dirt, rock, aggregates or other material. May require CDL license for driving on highway. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.
26	Utility Operator Grade 1	Clam, ditching machine, side booms (except those in Grade 2), operator on dredges, cleaning machine, coating machine, , blending machine, water-kote machine, equipment welder, track tractor, derrick, dragline, shovel, motor grader rough grade, Crawler tractor, foundation drill operator, crawler and truck mounted, and piled river.
27	Utility Operator Grade 2	Pipe, gin truck or winch truck with poles when used for hoisting, side boom (cradling rock drill), tow tractor, farm tractor road boring machine, fork lift (industrial type), pot fireman (power agitated), straightening machine, boring machine, bombardier (track or tow rig), , hydrostatic testing operator, scraper, staking machine, plant mix pavement roller operator, plant mix pavement, pneumatic motor operator. Concrete paving curing, float, texturing machine, subgrade trimmer, slip-form machine, milling machine, self-propelled sweeping machine, trenching machine, directional drill, , trenching, screening plant, and joint sealer. Off Road Hauler, Pavement Marking Machine Operator Reclaimer/Pulverizer Operator, Slurry Seal or Micro-Surfacing Machine Operator.

28	Welder, Certified/ Structural Steel Welder	Certified by the American Welding Society to perform structural steel welding. Operates welding equipment. Welds structural steel girders and diaphragms. May weld permanent metal deck forms. Cuts, lays-out, fits and welds metals or alloyed metal parts to fabricate or repair equipment. Welds the joints between lengths of pipe for oil, gas or other types of pipelines. May assist in welding of permanent metal deck forms. Performs other related duties.
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Chapter 22 Criminal History Records Contractor Certification:
Contractor/Subcontractor Employees

Introduction: Section 22.0834 of the Texas Education Code requires entities that contract with school El Paso Independent School Districts to provide services to obtain criminal history records on covered employees. Covered employees with disqualifying criminal histories are prohibited from serving at a school El Paso Independent School District. Service contractors with access to the DPS FACT Clearinghouse under the National Child Protection Act (NCPA) or state criminal history information for employees hired before January 1, 2008, must certify to the El Paso Independent School District that they have complied and must obtain similar certifications from their subcontractors.

The El Paso Independent School District may not obtain criminal histories for contractors. The law requires each contractor to obtain the criminal histories of its covered employees if contractor access is permitted by law. For more information to set up an account for criminal history record information through the DPS FACT Clearinghouse, a contractor should contact the Texas Department of Public Safety's DPS Fingerprint Services Unit by email at fingerprint.service@dps.texas.gov or by phone at 512.424.2474 – Option 6.

Definitions:

Covered employees: Employees of a contractor who have or will have continuing duties related to the service to be performed at the El Paso Independent School District and have or will have direct contact with students. The El Paso Independent School District will be the final arbiter of what constitutes *continuing duties* or *direct contact* with students.

Disqualifying criminal history: (1) a conviction or other criminal history information designated by the El Paso Independent School District; or (2) one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; (c) an equivalent offense under federal law or the laws of another state.

On behalf of KEYSTONE GC, LLC, a Texas corporation, doing business as KEYSTONE GC, LLC, I, the undersigned authorized signatory for Contractor, certify to the El Paso Independent School District that [check one]:



None of Contractor's employees are *covered employees*, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that its employees will not become *covered employees*. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

Or



Some or all of Contractor's employees are *covered employees*. If this box is checked, I further certify that:

- (1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.
- (2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.
- (3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees. Contractor is responsible for all District costs and expenses for the District obtaining the information on the covered employees.

If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

I also certify to the El Paso Independent School District on behalf of Contractor that Contractor has obtained certifications from its subcontractors of compliance with Texas Education Code chapter 22.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

Signature: _____



 Digitally signed by Francis Oulien
Date: 2023.09.12 17:47:12 -0500

Date: 09/12/2023

Title: Principal

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DIVISION I

1.01 WORK DESCRIPTION:

The work is summarized as follows: The project will consist of the widening of an existing concrete paved ramp to allow for additional vehicle access at Austin High School. The project will consist of the demolition of the existing rock retaining wall and a portion of the asphalt pavement for the reconstruction of a new concrete paved ramp and retaining wall.

The limits of the project are limited to the existing ramp area located along the southwest portion of the Austin High School campus.

1.02 WORK SEQUENCE:

Work will be constructed in one phase. Multiple elements will be completed within the established schedule and will include

Demolition of the existing rock retaining wall
Limited demolition of the existing concrete paved ramp
Limited demolition of the existing asphalt pavement
Site preparation and excavation
Site grading and backfilling
Concrete retaining wall construction
Construction of concrete paving within ramp area
Commissioning and closeout

1.03 SPECIFICATIONS

- A. Titles of sections are introduced for convenience and do not reflect a complete segregation of the various units of materials and labor.
- B. These specifications are intended to supplement the drawings, it will not be the province of these specifications to mention any portion of the construction which the drawings are competent to explain.
- C. All specifications of National Organizations and Trade Associations, as referred to in this specification shall mean the latest revision of such specification.
- D. Execute the work as per the contract documents. Where detailed information is lacking, refer matter to the Engineer for decision before proceeding with the work.

1.04 CODES, ORDINANCES, AND PERMITS:

- A. Comply with all codes applicable to the work.
- B. The contractor shall obtain all permits, licenses, etc. as required to perform this contract, at his expense.

1.05 SITE EXAMINATION:

- A. Examination of the site shall be the duty of the contractor and all trades involved. All visits will be coordinated with the Owner.
- B. Contractors are advised to visit the site prior to bidding, and attend the Pre-Bid Meeting, if scheduled.

1.06 OWNER'S REVIEW OF THE CONSTRUCTION PROCESS:

- A. The Owner and/or his agent shall be accorded every opportunity to review the work to ensure compliance with the intent of the contract documents.

1.07 SUPERVISION:

- A. The contractor shall keep on the work site a competent superintendent approved by the Owner and any necessary assistants during the entire construction period.
- B. The contractor shall be responsible for coordinating all subcontractors and providing current construction schedules.

1.08 INSTALLATION OF THE WORK:

- A. Examine the site and all drawings before proceeding with the layout and installation of this work.
- B. Exact layout is to be made on the job to suit field conditions.
- C. Provide and coordinate for required chases, slots, openings and other supporting elements.
- D. Install and work in a neat and workmanlike manner, using only workmen thoroughly qualified in the trade or duties they are to perform.
- E. All subcontractors shall be responsible for damages caused to other trades' work or Owner's property and finished work. All damages shall be repaired by the proper trade.
- F. The Contractor shall be required to provide all work shown on all drawings, and to coordinate all work of all sub-trades in the best interest of total completion of the project. Conflicts between drawings, or drawings and specifications, or specifications must be brought to the Engineer's attention prior to bidding. After bidding such conflicts shall be resolved by the Contractor on a "No Additional Cost" basis, in a manner acceptable to Owner and Engineer.

1.09 CONTRACTOR/SUBCONTRACTOR WARRANTY:

Contractor/Subcontractor shall warranty all equipment and installations to function properly for a period of one year from the date of final acceptance, accept as noted elsewhere.

1.10 PROTECTION

- A. Furnish and erect such protection and take all requisite precautions to avoid injury to persons or damage to adjoining property.
- B. Temporary Fencing: The Contractor shall provide a temporary construction fence around the project site. Temporary fencing shall be chain link, except as permitted otherwise by the Engineer and Owner, minimum 6'—0" in height, with locking gates for entry. Posts shall be minimum 1.5" diameter galvanized steel firmly embedded in concrete. Fencing shall be maintained straight and secure for the duration of Construction operations requiring its presence. Remove when no longer needed.
- C. Follow the requirements of local, state and federal laws and codes in the construction of the items mentioned above.
- D. Provide temporary barricades for dust and noise protection. Remove when no longer needed.

1.11 HOURS OF WORK:

- A. Working hours shall be reviewed and approved by Owner prior to proceeding.
- B. Modifications to the working hours shall be requested and approved by the Owner a minimum of one week prior to modifying the work schedule.
- C. No overtime pay for night or weekend work will be granted.

1.12 MEASUREMENTS:

All measurements shall be verified with the actual field condition at the site before ordering any material or doing any work.

1.13 SAFETY REQUIREMENTS:

- A. The contractor and his subcontractors are to work in close cooperation with the Owner's personnel and all safety regulations will apply to the contractor and his sub-contractors. The contractor shall contact the Project Engineer for specific safety instructions in regard to protection of personnel, equipment and services while work is in progress.

1.14 FIRE AND PREVENTIVE MEASURES:

- A. The contractor shall take all necessary precautions to eliminate all possible fire. Contractor shall maintain approved fire extinguishers on site at all times.

1.15 FIRSTAID:

The contractor shall provide and maintain his own first aid equipment, and his own means of providing for medical care.

1.16 CONSTRUCTION SEQUENCE:

- A. The Contractor shall submit a construction schedule for Owner's approval.
- B. Construction shall follow in sequence the approved construction schedule. Work on the preceding phase shall be substantially complete before work on the next phase may begin.
- C. Construct work in stages to accommodate Owner's use of premises during construction period, coordinate construction schedule and operations with the Owner.

1.17 DEFINITIONS:

- A. Contract - The Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations or agreements, either written or oral.
- B. Work - The completed construction or portion thereof required by the Contract Documents, including all necessary labor, materials, and equipment incorporated or to be incorporated in such construction.
- C. Governing Authority - All federal, state and local laws and regulations applicable to the Project.
- D. Engineer – WSP Environment & Infrastructure Inc. The Engineer's Project Manager to whom all correspondence shall be addressed is:

David A Varela, P.E.
WSP Environment & Infrastructure Inc.
125 Montoya Road
El Paso, Texas 79932
(915) 585-2472
- E. Owner – El Paso Independent School District. The Owner's Representative to whom all correspondence shall be directed is:

Jesus Manny Rivera Jr., EIT, MSCE
Project Manager - Construction
Facilities & Construction Department
1100 N. Stanton, 8th Floor
El Paso, Texas 79902
C: 915-252-3386
- F. Contractor - The person or entity identified as such in the Owner-Contractor Contract. The term "Contractor" means the Contractor or his authorized representative.
- G. Subcontractor - A person or entity who has a direct contract with the Contractor to perform any of the Work and means of Subcontractor or his authorized representative. The term "Subcontractor" does not include any separate Contractor or his Subcontractor.

- H. Subsubcontractor - A person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work and means a Sub-subcontractor or authorized representative. A Sub-subcontractor is also a person or entity who has a direct or indirect contract with another Sub-subcontractor to perform any of the Work.
- I. Contract Time - The period of time allotted in the Contract Documents for Substantial Completion of the Work, including authorized adjustments thereto.
- J. Date of Commencement - The date established in a Notice to Proceed. If there is no Notice to Proceed, it shall be the date of the Owner-Contractor Agreement or such other date as may be established therein.
- K. Date of Substantial Completion - The date certified by the Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended.
- L. Day - Calendar day.
- M. Clarification - A document issued by the Engineer defining a problem and its solution. This does not authorize any change in Contract Sum or Contract Time. This is not a Change Order or a request for a change of Contract Sum or Time.
- N. Proposal Request - A document issued by the Engineer or Owner requesting proposal for a change of Contract Sum or Contract Time or both.
- O. Change Order - A written order to the Contractor signed by the Contractor, Engineer, and Owner and issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum or the Contract Time.
- P. Product - Materials, systems and equipment.
- Q. Provide - Furnish, install and pay all cost for.

1.18 EXECUTION, CORRELATIONS AND INTENT

- A. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by anyone shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce the intended results. In case of a discrepancy between the Drawings and Specifications or among Drawings, the strongest, the larger quantity or better quality, as determined by the Engineer shall govern. If an item is shown on the Drawings, but not specified, the Contractor shall request a clarification prior to providing that item. If an item is specified, but not shown on the Drawings, it shall be located as directed by the Owner or Engineer.

- B. The Drawings are indications of the design intent, as well as specific instructions. The "details" show the intent of all similar areas. If questions arise about the construction of an area not specifically detailed, consult the Engineer, who will provide further sketches or instruction. Such further documentation shall not alter the Contract Sum.
- C. All instructions in the Contract Documents are directed to the Contractor. It is his responsibility to execute, assign, control, enforce, maintain, and coordinate the requirements of each Contract Document with his Subcontractors.

1.19 REVIEW OF CONTRACT DOCUMENTS:

- A. The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any inconsistency, omission, or error he may discover. The Contractor shall not be liable to the Owner for any damage resulting from errors, inconsistencies, or omissions in the Contract Documents, if such are promptly reported to the Engineer. The Contractor shall perform no portion of the Work at any time without Contract Documents or where required Shop Drawings, Product Data, or Samples for such portion of the Work.
- B. Do not scale the Drawings, follow the indicated dimensions. In case of discrepancy in the figures, bring the matter to the attention of the Engineer for his decision before proceeding with the Work. Failure to follow this procedure shall be at the Contractor's own risk, and the Engineer's decision shall be final.

1.20 CONTRACTOR'S RESPONSIBILITY

- A. The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner, and shall at once report to the Engineer, errors, inconsistencies, or omissions discovered. If the Contractor performs any construction activity, knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Engineer, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.
- B. The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents, before commencing activities. Errors, inconsistencies or omissions discovered, shall be reported to the Engineer at once.
- C. The submission of a bid proposal and subsequent signing of a construction contract will be regarded as a guarantee that the Contractor has verified all field conditions, and fully understands the scope of the project. Henceforth, only concealed or unknown existing conditions and scope changes will be considered as a basis for a change order.
- D. The assumption is made that subcontractors for all trades possess at least a minimum standard of expertise in their trade, and therefore will bear partial responsibility for the proper execution of their work. The identification and notification of the Engineer regarding errors, inconsistencies and omissions in the Contract Documents prior to the implementation of any work, are inclusive of such responsibility.

- E. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.
- F. The Contractor shall review, approve and submit to the Engineer, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents with reasonable promptness, and in such a sequence as to cause no delay in the Work or in the activities of the Owner, or of separate contractors.
- G. By approving and submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- H. The contractor shall be solely responsible for the provision of all work indicated on drawings and in specification sections. The common practice of dividing the contract documents into trades portions, is explicitly discouraged. Pertinent information for any trade may be referenced in any portion of the contract documents and must be provided. In other words, all electrical work is not necessarily exclusively referenced in the electrical drawings and specification sections, the plumbing provisions are not necessarily all confined to plumbing drawings, and specs., all concrete is not necessarily in structural, wood work and cabinets, not necessarily in millwork, etc.

1.21 SUPERVISION AND CONSTRUCTION PROCEDURES:

- A. Contractor shall supervise and direct the Work. He shall be solely responsible for all construction means, methods, techniques, safety, schedules, sequences, and procedures and for coordinating all portions of the Work under the Contract.
- B. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him.
- C. The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors and their agents and employees, and other persons performing any of the Work under a Contract with the Contractor.

1.22 WARRANTY:

The Contractor warrants and guarantees to the Owner and the Engineer that all materials and equipment furnished under the Contract Documents will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects, and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly authorized, may be considered defective. If required by the Engineer or Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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1.23 NOTICES AND LAWS:

- A. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the Work.
- B. It is not the responsibility of the Contractor to make certain that the Contract Documents are in accordance with applicable laws, statutes, building codes, and regulations. If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the Engineer in writing, and any necessary changes shall be accomplished by appropriate Modification.
- C. If the Contractor performs any Work knowing it is contrary to such laws, ordinances, rules, and regulations and without such notice to the Engineer, he shall assume full responsibility and shall bear all costs attributable thereto.

1.24 SUPERINTENDENT:

- A. The Contractor shall employ a competent superintendent approved by the Owner and necessary assistants who shall be in attendance at the Project Site during the progress of the Work. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case.
- B. Immediately after the award of the Contract, the Contractor shall submit an outline experience record of his intended Project Superintendent in order that the Owner may review and approve his qualifications. Until completion and acceptance of the Work, the Contractor shall not change or remove the Superintendent except with the consent or direction of the Owner.

1.25 EQUAL OPPORTUNITY:

- A. The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and the employees are treated during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.
- B. The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.

1.30 COORDINATION:

The General Contractor is responsible for the assignment of work to the trades. Do not infer inclusion of an item to one subcontractor over another due to placement within the drawings or specifications. All work covered in any area of the construction documents must be completed. Who conducts this work is determined by the General Contractor, who must read all sections of the specifications and coordinate all work among the subcontractors to perform a complete job.

1.31 LEASING OF PUBLIC-RIGHT-OF-WAY:

Contractors are encouraged to contact appropriate departments of the City of El Paso and El Paso Independent School District in order to make arrangements relative to "leasing of public right-of-way" areas, as may be deemed necessary for the implementation of this construction project.

2.0 PROJECT LAYOUT

- 2.1 The Contractor shall employ an experienced and competent Registered Professional Land Surveyor; cause him to establish permanent bench marks to which easy access may be had during the progress of Work, to determine all lines and grades and to verify same from time to time as Work progresses. He shall keep the benchmarks in good working condition and allow the Engineer unrestricted use of the benchmarks at all times.
- 2.2 The Contractor shall employ an experienced and competent Registered Professional Land Surveyor to lay out all lines, grades and measurements necessary to the proper prosecution and control of the Work contracted for under the Contract Documents.

3.0 EXISTING STRUCTURES

- 3.1 The Contract Documents show the locations of all known surface and sub-surface structures. However, the location of many gas mains, water mains, conduits, sewers, etc., is unknown and the Owner assumes no responsibility for failure to show any or all of these structures on the Plans or show them in their exact location. It is mutually agreed that such failure will not be considered sufficient basis for claims for additional compensation.

4.0 RIGHT OF WAY

- 4.1 All right of way for the construction of the Project will be provided by the Owner.

5.0 PRIVILEGES OF CONTRACTOR IN STREETS, ALLEYS AND RIGHTS OF WAYS

- 5.1 For the performance of the Contract, the Contractor will be permitted to occupy such portions of streets or alleys, or other public places or other rights of way as provided for in the ordinances of the City of El Paso as shown on the Plans or as permitted by the Engineer. A reasonable amount of tools, materials, and equipment for construction purposes may be stored at such space, but not more than is necessary to avoid delays in the construction. Excavated and waste materials shall be piled or stacked in such a way as not to interfere with spaces that may be designated to be left free and unobstructed, nor inconvenience occupants of adjoining property. Other Contractors of the Owner may, for all purposes required by their contracts, enter upon the Work and premises used by the Contractor and

the Contractor shall give to such other Contractors of the Owner all reasonable facilities and assistance for the completion of adjoining work. Any additional grounds desired by the Contractor for his own use shall be provided by him at his own cost and expense.

6.0 STORAGE OF MATERIALS

- 6.1 Materials shall be stored so as to insure the preservation of their quality and fitness for the Work. When directed by the Architect, they shall be placed on wooden platforms or other clean surfaces and not on the ground and shall be placed under cover when directed. Stored materials shall be placed and located so as to facilitate prompt inspection.
- 6.2 Contractor shall be responsible for the proper care and protection of all his materials, equipment, and supplies delivered at the site.
- 6.3 Building materials, Contractors' equipment, and supplies may be stored on the premises, but the placing of same shall be subject to the approval of the Engineer.
- 6.4 Contractor shall protect and be responsible for any damage to the Work or materials, from the date of the Contract until the final payment is made, and shall make good, without cost to the Owner, any damage or loss that may occur during this period.
- 6.5 Contractor shall handle all material as directed, so that it may be inspected by the Engineer.
- 6.6 All cement, lime and other materials affected by the weather shall be covered and protected to keep them free from damage while they are being transported or stored at the site.

END OF SECTION

01000-10

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. General requirements for coordination of Work.
 - 2. Field engineering.
 - 3. Requirements for participation in and administration of:
 - a. Pre-construction conference.
 - b. Progress meetings.
 - c. Pre-installation conferences.
 - 4. Progress schedule.
 - 5. Construction photographs.

1.2 SUBMITTALS

- A. Provide in accordance with Section 01300 - Submittal Procedures:
 - 1. Coordination drawings:
 - a. Provide where coordination is critical for installation of components fabricated off site and where space is limited, and maximum utilization of space is required.
 - b. Show relationship and integration of components and construction entities, required installation sequence, dimensions, and tolerances.
- B. Staff assignment list:
 - 1. List of Contractor's principal staff assignments for the Project. Indicate names, duties and responsibilities, addresses, and telephone numbers.
 - 2. Distribute and post in the field office and elsewhere on site as appropriate to provide coordination information.

1.3 GENERAL COORDINATION REQUIREMENTS

- A. Scheduling: Coordinate scheduling, submittals, and work of various specification sections to ensure an efficient and orderly sequence of installation of interdependent construction elements. Ensure that the work of one specification section is not installed in such a manner as to limit, preclude, or restrict the work of another section. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure the efficient and orderly installation of each part of the Work. Coordinate construction operations included
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in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on the installation of other components, before or after its own installation.
 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Coordinate completion and cleanup of work of separate specification sections in preparation for final inspection specified in Section 017700 - Closeout Procedures.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and scheduled activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.

After acceptance of Work, coordinate access to facility for required maintenance, monitoring, adjusting, and correcting deficiencies to manner to minimize disruption of Owner's activities.

1.4 FIELD ENGINEERING

- A. Existing control datum for field engineering is indicated on Drawings.
- B. Locate or establish survey control and reference points prior to starting site construction. Protect points during construction and record locations with horizontal and vertical data on Project Record Documents.
- C. Prior to the start of construction, verify the location of control points and layout information on Drawings relative to property, setback, and easement lines.

- D. Provide competent field engineering services. Establish elevations, lines, and levels utilizing recognized engineering survey practices. Periodically verify layouts.
- E. Promptly replace dislocated control and reference points based on original survey control.

1.5 PRE-CONSTRUCTION CONFERENCE

- A. Schedule and administer Pre-Construction Conference to be held after execution of the Agreement and issuance of Notice to Proceed. A conference shall be held at the site or other locations convenient to all parties.
- B. Attendance: Owner, Engineer, Consultants, Contractor, and major subcontractors and suppliers.
- C. Agenda:
 - 1. Notice to Proceed.
 - 2. Distribution of Contract Documents.
 - 3. Designation of responsible personnel representing the Owner, Contractor, and Engineer.
 - 4. Use of premises by Contractor and Owner, Owner's occupancy requirements, work hours, and right-of-way restrictions.
 - 5. Channels of communication.
 - 6. Construction schedule, work sequence, project meetings, and delivery priorities.
 - 7. Construction facilities, storage, controls, and temporary utilities.
 - 8. Procedures for processing submittals, applications for payment, substitution requests, field decisions, and contract modifications.
 - 9. Employment practices and wage rates.
 - 10. Security, safety, first aid, and housekeeping procedures.
 - 11. Permits.
 - 12. Procedures for maintaining project record documents.
 - 13. Contract closeout procedures.
 - 14. Public relations.
 - 15. Other pertinent items.

- 1.6 PROGRESS MEETINGS, (NOTE ALL REQUIREMENTS FOR PROGRESS MEETINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR).
- A. Schedule and administer construction progress meetings throughout the progress of Work. Meetings shall be held monthly or more frequently as required. Location of meetings to be on site or other location approved by Architect.
 - B. Make arrangements for meetings, prepare agenda, and distribute notice of meetings to participants, Engineer, and Owner three (3) days in advance of the meeting.
 - C. Preside at meetings. Record minutes and distribute copies within three (3) days after the meeting to participants, entities affected by meeting decisions, the Engineer, and the Owner.
 - D. Attendance: Contractor, job superintendent, and subcontractors and suppliers as appropriate to agenda. Owner representatives, Engineers, and consultants may attend as appropriate.
 - E. Prepare agenda to cover topics pertinent to continued progress and successful completion of Work. Suggested topics:
 - 1. Review previous meeting minutes.
 - 2. Review schedules and progress, identify impediments and determine measures to maintain schedules.
 - 3. Review field observations, problems, and decisions.
 - 4. Status of submittals.
 - 5. Off-site fabrication and delivery schedules.
 - 6. Quality control.
 - 7. Review proposed change orders and effect on schedule.
 - 8. Review Project Record Documents.
- 1.7 PRE-INSTALLATION CONFERENCES
- A. When required by an individual specification section, convene a pre-installation conference at the site.
 - B. Require attendance of entities directly concerned with the item of work.
 - C. Notify the Engineer four (4) days in advance of the meeting.
 - D. Prepare agenda and preside at the conference. Record minutes and distribute copies within three (3) days to participants and the Engineer.
 - E. At meetings, review conditions of installation, preparation and installation procedures, and coordination with related work.
-

1.8 PROGRESS SCHEDULE

- A. Format: Horizontal bar chart:
 - 1. Approximate sheet size: 17 by 28 inches.
 - 2. Provide a separate bar for each major item of Work. Arrange in sequence and identify bars with specification section numbers and titles from the Project Manual Table of Contents.
 - 3. Horizontal scale: Time with the first workday of each month identified. Adjust scale to show the entire construction period plus extensions.
 - 4. Vertical spacing: Allow space for notations and revisions.
- B. Show the complete sequence of construction by activity. Indicate:
 - 1. Dates for beginning and completion of each construction item.
 - 2. Projected percentage of completion for each item as of the first workday of each month.
 - 3. Projected percentage of completion for total Work as of the first day of each month.
 - 4. Required dates for the return of specific submittals and for the selection of finishes.
- C. Procedures:
 - 1. Submit for review by Engineer three (3) copies of the preliminary Progress Schedule within twenty (20) days of the date of the Agreement Between Owner and Contractor.
 - 2. Revise to address review comments and resubmit.
 - 3. Update the Progress Schedule and submit three (3) copies with each Application for Payment.
 - a. Identify the progress of each activity to the date of submittal and projected completion date.
 - b. Identify activities modified since the previous submittal and other identifiable changes.
 - c. Provide narrative report as needed to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken or proposed and its effect.

1.9 CONSTRUCTION PHOTOGRAPHS

- A. Submit monthly with each Application for Payment two (2) sets of photographs showing the progress of Work.
- B. Take photographs within seven (7) days of end of Application for Payment period.
- C. Type: Use a digital camera and provide an electronic file plus two (2) sets of 3 by 5 inches color prints.
- D. Minimum number of views per month:
 - 1. Three (3) exterior site views.
- E. Label photographs with project name and date taken.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. Verify utility requirements and characteristics of equipment are compatible with facility utilities. Coordinate work of various specification sections having interdependent requirements for installing, connecting to, and placing in service such equipment.

END OF SECTION

I. GENERAL**A. SECTION INCLUDES:**

1. Submittal procedures.
2. Construction progress schedules.
3. Proposed Products list.
4. Shop Drawings.
5. Product Data.
6. Samples.
7. Manufacturer's installation instructions.
8. Manufacturers' certificates.

B. SUBMITTAL PROCEDURES

1. Sequentially number the transmittal form. Revise submittals with the original number and a sequential alphabetic suffix.
2. Identify the Project, Contractor, Subcontractor, or supplier, pertinent drawing and detail number, and specification section number, as appropriate.
7. Apply the Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information, is in accordance with the requirements of the work and Contract Documents.
8. Schedule submittals to expedite the Project, and deliver to WSP USA Environment & Infrastructure Inc., 125 Montoya Road, El Paso, Texas 79932. Coordinate submission of related items.
5. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
9. Identify variations from Contract Documents and Product or system limitations, which may be detrimental to the successful performance of the completed work.
10. Provide space for Contractor and Engineer review stamps.
11. Revise and resubmit, identify all changes made since the previous submission.

12. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
13. Submittals not requested will not be recognized or processed.

C. CONSTRUCTION PROGRESS SCHEDULES

1. Submit the initial schedule in duplicate within 15 days after the date of the Owner-Contractor Agreement (established in the Notice to Proceed).
2. Revise and resubmit as required.
3. Submit revised schedules with each Application for Payment, identifying changes since the previous version.
4. Submit a horizontal bar chart with separate lines for each major section of work, identifying the first workday of each week.
5. Show the complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities; indicate the early and late start, early and late finish, float dates, and duration.
6. Indicate the estimated percentage of completion for each item of work at each submission.
7. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by the owner and required by Allowances.

D. PROPOSED PRODUCTS LIST

1. Within 15 days after the date of the Owner-Contractor Agreement or Notice to Proceed, submit list of major products proposed for use, with the name of the manufacturer, trade name, and model number of each product.
2. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

E. SHOP DRAWINGS

1. Submit the number of opaque reproductions, which the Contractor requires, plus six (6) copies to be retained by the Engineer.
2. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

F. PRODUCT DATA

1. Submit the number of copies, that the Contractor requires, plus six (6) copies to be retained by the Engineer.
2. Mark each copy to identify applicable products, models, options, and other data. Supplement the manufacturers' standard data to provide information unique to this Project.
3. Indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

G. SAMPLES

1. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
2. Submit samples of finishes, textures, and patterns for Engineer selection with identification on each sample, including full Project information.
4. Submit the number of samples specified in individual specification sections, six (6) of which will be retained by the Engineer.
5. Reviewed samples, which may be used in the work, are indicated in individual specification sections.

H. MANUFACTURER INSTALLATION INSTRUCTIONS

1. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to the Engineer in quantities specified for Product Data.
2. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

I. MANUFACTURER CERTIFICATES

1. When specified in individual specification sections, submit certification by the manufacturer to the Engineer, in quantities specified for Product Data.
2. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
3. Certificates may be recent or previous test results on material or Product but must be acceptable to the Engineer.

II. PRODUCTS

Not Used

III. EXECUTION

Not Used

END OF SECTION

I. GENERALA. SECTION INCLUDES

1. Quality assurance - control of installation.
2. Tolerances.
3. References.
4. Inspecting and testing laboratory services.
5. Manufacturers' field services and reports.

B. RELATED SECTIONS

1. Section 01300 - Submittals: Submission of manufacturers' instructions and certificates.

C. QUALITY ASSURANCE - CONTROL OF INSTALLATION

1. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
2. Comply with manufacturers' instructions, and material specifications, including each step-in sequence.
3. Should manufacturers' instructions conflict with Contract Documents, request clarification from the Project Engineer before proceeding. Work performed without review and approval by the Project Engineer may be subject to rejection and removal; reconstruction of Work will be at the Contractor's expense.
4. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
5. Perform work by persons qualified to produce workmanship of specified quality.
6. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

D. TOLERANCES

1. Comply with tolerances described in material's specifications (i.e., cast in place concrete)
2. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.
3. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from the Project Engineer before proceeding. Work performed without review and approval by the Project Engineer may be subject to rejection and removal; reconstruction of Work will be at the Contractor's expense.
4. Adjust Products to appropriate dimensions; position before securing Products in place.

E. REFERENCES

1. For Products or workmanship specified by association, trade, or other consensus standards comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
2. Conform to reference standard by date of issue current on the date of Contract Documents, except where a specific date is established by code.
3. Obtain copies of standards where required by product specification sections.
4. Maintain copy at the Project site during submittals, planning, and progress of the specific work, until Substantial Completion.
5. Should specific reference standards conflict with Contract Documents, request clarification from the Project Engineer before proceeding. Work performed without review and approval by the Project Engineer may be subject to rejection and removal; reconstruction of Work will be at the Contractor's expense.
6. The contractual relationship, duties, and responsibilities of the parties in the Contract nor those of the Project Engineer shall not be altered from the Contract Documents by mention or inference otherwise in any referenced document.

F. INSPECTING AND TESTING LABORATORY SERVICES

1. Consult Engineer for testing requirements.
2. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspecting and testing.
3. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by the Project Engineer or the Owner.
4. Inspecting, testing, and source quality control may occur on or off the project site. Perform off-site inspecting or testing as required by the Project Engineer or the Owner.
5. Reports will be submitted by the independent firm to the Project Engineer and the Contractor, in triplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
6. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - a. Notify the City Inspector, Project Engineer, and independent firm 24 hours prior to the expected time for operations requiring services.
 - b. Make arrangements with independent firm and pay for additional samples and tests required for the Contractor's use.
7. Testing or inspecting does not in any way relieve the Contractor to perform Work to contract requirements.
8. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Project Engineer. Payment for re-testing will be charged to the Contractor by deducting inspecting or testing charges from the Contract Sum/Price.

G. MANUFACTURERS' FIELD SERVICES AND REPORTS

1. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, and test, adjust, and balance of equipment, as applicable, and to initiate instructions when necessary.
2. Submit qualifications of observer to Project Engineer 30 days in advance of

3. required observations. Observer subject to approval of Project Engineer. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
4. Submit the report in triplicate within 30 days of observation to Project Engineer for information.

II. PRODUCTS

Not Used.

III. EXECUTION

Not Used.

END OF SECTION

DIVISION II

SCOPE: Furnish all plant, equipment, labor, materials, and supervision required for the preparation of the site and protection to adjacent existing properties and utilities to remain in place during construction.

Contractor shall be responsible for conducting their own tests to verify the actual depths of the soil formations and types within the project limits to perform earthwork. The Owner shall not incur additional costs for variations in the soil formations within the Project limits and/or additional excavation requirements by the Contractor. A geotechnical report was generated for design purposes only and is available for review at the El Paso Independent School District office. Contractor may consider the information presented in this report at their own risk. If deemed necessary, Contractor shall collect additional soil information for use and/or interpretation for earthwork estimates that comply with the project specifications prior to bidding.

I. DEMOLITION AND REMOVAL

A. REMOVAL OF OLD CONCRETE, ROCK WALLS AND FOUNDATIONS.

1. Description. This item consists of breaking up, removing, and adequately disposing of existing concrete in locations that are shown on the plans.
2. Construction Methods. Existing concrete shall be broken into pieces not greater than 18 inches in any dimension by air-driven machinery or other suitable means. Existing concrete can consist of, but is not limited to paving, sidewalks, rock walls, and foundations.
3. In projects where only a portion of the existing concrete is to be removed, Contractor shall take special care to avoid damaging concrete that will remain. Contractor shall adhere to the neat lines shown on plans and/or established by the Engineer in cutting the existing concrete. Any concrete beyond the established neat lines, which is damaged by these operations, shall be replaced at Contractor's expense.
4. Existing concrete that is removed, as indicated on plans shall be hauled and disposed of at designated points approved by the Design Engineer or his Representative. Existing concrete, which is not to be salvaged, shall be disposed of by Contractor at locations obtained by him, and the provision that the concrete be broken into pieces no greater than 18 inches in any dimensions will not apply.

II. SITE PREPARATION

- A. Natural subgrades to support structural fill or pavements should be stripped of all vegetation or organic topsoil. The exposed subgrade should be scarified just prior to fill placement to a minimum depth of 8 inches and recompact to a minimum of 95 percent of the maximum density as determined by ASTM D-1557 Compaction test. The moisture content of the subgrade should be maintained within a range of ± 3 percent of the optimum moisture content until permanently covered. Subgrade compacted wetter than 3 percentage points above the optimum water content will not be accepted without approval of the Design Engineer.
- B. Flat work shall be supported by at least 8 inches of Structural Fill.

In areas where Structural Fill will be required to raise the existing grades to the finished grade elevations, the Structural Fill should be placed in loose lifts not exceeding 8 inches in thickness and compacted to at least 95 percent of maximum dry density as determined by the ASTM D 1557. The moisture content of the fill should be maintained within a range of ± 2 percent of the optimum moisture content until permanently covered. The Structural Fill should be appropriately tested for compaction verification at standard frequencies or as required by the Project Specifications and Construction Plans, whichever is more stringent.

END OF SECTION

- I. **DESCRIPTION.** This term covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct concrete pavements and for retaining wall backfill, or other purposes in accordance with these specifications and in conformity to the dimension and typical sections shown on the plans.

A. **CLASSIFICATION.** All material excavated shall be classified as defined below:

1. **Unclassified Excavation.** Unclassified excavation shall consist of the excavation of all material, regardless of its nature, which is not otherwise classified or defined.
2. **Rock Excavation.** Rock excavation shall include all solid rock in ledges, in bedded deposits, in unstratified masses, and conglomerate deposits which are so firmly cemented they cannot be removed without blasting or using rippers. All boulders containing a volume of more than $\frac{1}{2}$ cubic yard (0.4 cubic meters) will be classified as "rock excavation".
3. **Muck Excavation.** Muck excavation shall consist of the removal and disposal of deposits of mixtures of soils and organic matter not suitable for foundation material. Muck shall include materials which will decay or produce subsidence in the subgrade. It may be made up of decaying stumps, roots, logs, humus, or other material not satisfactory for incorporation in the subgrade.
4. **Borrow Excavation.** Borrow excavation shall consist of approved material required for the construction of subgrade or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas within the limits of the construction but outside the normal limits of necessary grading, or from areas outside the construction.

- B. **UNSUITABLE EXCAVATION.** Any material containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in subgrade construction. Material, when approved by the Project Engineer as suitable to support vegetation, may be used on the subgrade slope.

II. **MATERIALS**

- A. Structural Fill materials shall consist of soil that is free from grass, roots, other vegetable matter, free of clay lumps, deleterious materials, cobbles or boulders over 3 inches and particles greater than 3 inches in any dimension. The plasticity index of the material, as determined in accordance with ASTM D4318, shall not exceed 15.

<u>Sieve Size</u> <u>(square openings)</u>	<u>Percent Passing</u> <u>by Weight</u>
3 inch	100
¾ inch	70 – 100
No. 4	40 – 100
No. 200	10 – 30

Select Fill soils shall classify as SP-SM, SM, SC, SC-SM, GM, GC, GC-CM, GP, GP-GM, and GP-GC in accordance with the Unified Soils Classification System (USCS).

III. CONSTRUCTION METHODS

- A. GENERAL. Before beginning excavation, grading and subgrade operations in any area, the area shall be completely cleared and grubbed in accordance with Section 02001. The suitability of material to be placed in subgrades shall be subject to approval by the School District or his/her designated representative, Project Geotechnical Engineer or designated representative. All unsuitable material shall be disposed of by the Contractor in waste areas approved by EPISD or his/her designated representative. All waste areas shall be graded to allow positive drainage of the area and of adjacent areas. The surface elevation of adjacent usable areas of the construction, unless specified on the plans or approved by EPISD or his/her designated representative.

- B. When the Contractor's excavation operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. At the direction of an Archaeologist, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

If it is necessary to interrupt existing surface drainage, sewers or under drainage, conduits, utilities, or similar underground structures the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the proper utility agency and shall arrange for their removal, adjustment or relocation if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor's operations during the period of the contract.

- C. EXCAVATION. No excavation shall be started until the work has been staked out by the Contractor's Surveyor and the Project Engineer has obtained elevations and measurements of the ground surface. All suitable excavated material shall be used in the formation of subgrade, or for other purposes shown on the plan. All unsuitable material shall be disposed of by Contractor at sites approved by EPISD or his/her designated representative.

When the volume of the excavation exceeds that required to construct the subgrades to the grades indicated, the excess shall be disposed of at sites selected by the Contractor and approved by EPISD or his/her designated representative. When the volume of excavation is not sufficient for constructing the fill to the grades indicated, the deficiency shall be obtained from approved borrow areas. All soils to be used as structural fill shall meet the physical characteristics and requirements as set forth in the Geotechnical Study and these specifications.

The grade shall be maintained so that the surface is well drained at all times. When necessary, temporary drains, ponding areas, earthen berms, and drainage ditches shall be installed to intercept or divert surface water which may affect the work.

1. Selective Grading. When selective grading is indicated on the plans, the more suitable material as designated by the Project Engineer shall be used in constructing the subgrade or in capping the concrete lining subgrade.
2. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for subgrades, concrete structures, pavements, concrete lining or rip-rap shall be removed to a minimum depth of 12 inches, or to the depth specified by the Geotechnical Engineer, below the subgrade. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed of by Contractor at sites approved by EPISD or his/her designated representative. The excavated area shall be refilled with suitable material, obtained from the grading operations or borrow areas and thoroughly compacted by rolling. The necessary refilling will constitute a part of the subgrade. Where rock cuts are made and refilled with selected material, any pockets created in the rock surface shall be drained in accordance with the details shown on the plans.
3. Overbreak. Overbreak, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the Project Engineer. The Project Engineer shall determine if the displacement of such material was unavoidable and Project Engineer's decision shall be final. All overbreak shall be graded or removed by the Contractor and disposed of as directed.
4. Relocation of Utilities. It shall be the responsibility of the Contractor to coordinate with utility companies for the removal and relocation of all utilities. All utilities in conflict with proposed drainage improvements and located within the project limits including all meters, valve boxes, power poles, light poles, high-pressure gas markers, manholes and associated appurtenances shall be removed, replaced, relocated or adjusted as necessary to accommodate the new drainage improvements. Contractor to coordinate with each respective utility company having jurisdiction over this project for all replacements, relocations, and/or removal of existing utilities. All utilities and associated appurtenances shall be placed at new locations or areas designated by the utility company(s)

having jurisdiction over the project. Utilities and appurtenances shall be placed so as not to conflict with other existing utilities and/or proposed improvements. All existing foundations shall be excavated for at least 2 feet (0.6 m) below the top of subgrade or as indicated on the plans, and the material disposed of as directed.

All foundations thus excavated shall be backfilled with suitable material and compacted as specified herein.

5. Compaction Requirements. All fill shall be spread in layers not exceeding eight (8) inches, moisture conditioned as necessary to within plus or minus 3 percent of the optimum moisture content and compacted. Compaction of the fill shall be accomplished by mechanical means only to obtain a density of not less than 95 percent of the maximum dry density for the retaining walls, paved areas, and other structural areas. Optimum moisture content and maximum dry density for each soil type used shall be determined in accordance with ASTM D1557. Compaction of subgrade below structural fill shall also be accomplished by mechanical means to obtain a density of not less than 95% of maximum dry density. Vibratory rollers shall not be used on this project.

The in-place field density shall be determined in accordance with ASTM D1556 or ASTM D2167 or ASTM D2922. Stones or rock fragments larger than 3 inches in their greatest dimension will not be permitted within twelve (12) inches of any concrete slab, pavement, or foundation. The finished grading operations, conforming to the typical cross-section, shall be completed and maintained ahead of the concrete lining and pavement operations or as directed by EPISD or his/her designated representative.

In cuts, all loose or protruding rocks on the back slopes shall be barred loose or otherwise removed to line of finished grade of slope. All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the Project Engineer.

No blasting shall be permitted on this project.

- C. BORROW EXCAVATION. Borrow excavation shall be made only at locations approved by EPISD or his/her designated representative and within the horizontal and vertical limits as staked or as directed.

When borrow sources are outside the boundaries of the project property, it shall be the contractor's responsibility to locate and obtain the supply, subject to the approval of the Project Engineer. The Contractor shall notify the Project Engineer at least 15 days prior to beginning the excavation, so necessary measurements and tests can be made. All unsuitable material shall be disposed of by the Contractor at his own expense. All borrow pits shall be opened up to expose the vertical face of various strata of acceptable

materials to enable obtaining a uniform product. Borrow pits shall be excavated to regular lines to permit accurate measurements, and they shall be drained and left in a neat, presentable condition with all slopes dressed uniformly.

- D. **DRAINAGE EXCAVATION.** Drainage excavation shall consist of excavating for drainage ditches, box culverts and drainage structures; such as intercepting, inlet or outlet; for temporary levee construction; or for any other type as designed or as shown on the plans. The work shall be performed in the proper sequence with the other construction. All suitable material shall be placed in fill areas; unsuitable material shall be placed in approved waste areas. Intercepting ditches and/or berms shall be constructed prior to starting adjacent excavation operations. All necessary work shall be performed to secure a finished true to line, elevation, and cross-section.
- E. **PREPARATION OF SUBGRADE AREA.** Where a subgrade is to be constructed to a height of 4 feet or less, all sod and vegetable matter shall be removed from the surface upon which the subgrade is to be placed, and the cleared surface shall be completely broken up by plowing or scarifying to a minimum depth of 8 inches. This area shall then be compacted as indicated in these specifications. When the height of fill is greater than 4 feet, sod will not require removal and shall be thoroughly disked and recompacted to the density of the surrounding ground before construction of subgrade.

Unprotected slopes steeper than 3H : 1V will not be allowed.

- F. **FORMATION OF SUBGRADES.** Subgrades shall be formed in successive horizontal layers of not more than 8 inches in loose depth for the full width of the cross-section, unless otherwise approved by the Project Engineer. Where the potential for differential movements is objectionable, it may be beneficial to consider methods of reducing anticipated movements to match the adjacent structure performance.

The grading operations shall be conducted, and the various soil strata shall be placed, to produce a soil structure as shown on the typical cross-sections or as directed by the Geotechnical Engineer. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the subgrade.

Operations on earthwork shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing, or other unsatisfactory conditions in the field. The Contractor shall drag, blade, or slope the subgrade to provide proper surface drainage.

The material in the layer shall be within ± 3 percent of optimum moisture content before rolling to obtain the prescribed compaction. In order to achieve a uniform, moisture content throughout the layer, wetting or drying of the material and manipulation shall be required when necessary. Should the material be too wet to permit proper compaction or rolling, all work on all of the affected portions of the subgrade shall be delayed until the material has dried to the require moisture content. Sprinkling of dry material to obtain the proper moisture content shall be done with approved equipment that will sufficiently distribute the water.

Sufficient equipment to furnish the required water shall be available at all times. Samples of all subgrade materials for testing, both before and after placement and compaction, will be taken as recommended by the Project Engineer. Based on these tests, the Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content in order to achieve the correct subgrade density.

Rolling operations shall not be continued until the subgrade is compacted to not less than 95% of maximum density as determined by ASTM D1557.

The in-place field density shall be determined in accordance with ASTM D1556 or ASTM D2167 or ASTM D2922.

Compaction areas shall be kept separate, and no layer shall be covered by another until the proper density is obtained.

During construction of the subgrades, layer placement shall begin in the deepest portion of the fill; as placement progresses, layers shall be constructed approximately parallel to the finished pavement grade line.

When rock and other subgrade material are excavated at approximately the same time, the rock shall be incorporated into the outer portion of the subgrade and the other material shall be incorporated under paved area. Stones or fragmentary rock larger than 3 inches in their greatest dimensions will not be allowed within twelve (12) inches of any concrete slab, pavements, concrete or rock lining or foundations. Rockfill shall be brought up in layers as specified or as directed and every effort shall be exerted to fill the voids with the finer material forming a dense, compact mass. Rock or boulders shall not be disposed of outside the excavation or subgrade areas, except at places and in the manner designated by the Project Engineer.

Frozen material shall not be placed in the subgrade nor shall subgrade be placed upon frozen material.

There will be no separate measurement or payment for compacted subgrade incidental to placing in layers, compacting, diskings, watering, mixing, sloping, and other necessary operations for construction of subgrade. All costs will be included in the contract.

- G. FINISHING AND PROTECTION OF SUBGRADE. After the subgrade has been substantially completed, the full width shall be conditioned by removing any soft or other unstable material which will not compact properly. The resulting areas and all other low areas, holes or depressions shall be brought to grade with suitable select materials. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the Project Drawings.

Grading of the subgrade shall be performed so that it will drain readily. The Contractor shall take all precautions necessary to protect the subgrade from damage. Any damages to subgrade shall be replaced and/or reworked at no additional cost to the Owner.

Hauling over the finished subgrade shall be limited to that which is essential for construction purposes.

All ruts or rough places that develop in a completed subgrade shall be smoothed and recompact.

No concrete structures or pavement shall be placed on the subgrade until the subgrade has been approved by the Engineer or his/her designated representative.

- H. HAUL. All hauling will be considered a necessary and incidental part of the work. Its cost shall be considered by the Contractor and included in the Contract. No payment will be made separately or directly for hauling on any part of the work.
- I. TOLERANCES. In those areas upon which a concrete retaining wall or pavement is to be placed, the top of the subgrade shall be of such smoothness that, when tested with a 16 foot (5 m) straightedge applied parallel and at right angles to the centerline, it shall not show any deviation in excess of $\frac{1}{2}$ inch (1.3 cm), or shall not be more than 0.05 foot (0.015 m) from true grade as established by grade hubs or pins. Any deviation in excess of these amounts shall be corrected by loosening, adding, or removing materials; reshaping; and recompact by sprinkling and rolling.

IV. TESTING REQUIREMENTS. The specification testing shall meet the requirements of the subsurface soil and pavement investigation report and the following minimum testing frequencies:

- 1. At least one (1) Moisture-Density Relationship (Proctor) for each type of in-situ soil and/or imported material to be used, according to ASTM D1557. Additional tests shall be performed during the course of construction to ensure that the soil material is maintained within the specified requirements.
- 2. At least three (3) Soil Classification (Sieve Analysis and Atterberg Limits Test) for each type of material encountered and/or import material to be used, according to ASTM D6913 and D4318 during the course of construction. Additional tests shall be performed to further evaluate the quality of the placed soil materials during the course of construction.
- 3. A minimum of three (3) nuclear density test per each lift of subgrade preparation and/or fill placement for pavements, backfill and foundations according to ASTM D6938 or D1556.
- 4. One field density test in the fill areas for each 100 square feet of original ground surface area.

6. One field density test in the structure areas for each 500 square feet of fill placed or each layer of fill for each work area, whichever is the greater number of tests.
7. One field density test in pavement areas for each 5,000 square feet of fill placed or each layer of fill for each work area, whichever is the greater number of tests.

END OF SECTION 02010

I. GENERAL**A. SECTION INCLUDES**

1. Remove any surface debris.
2. Remove the existing concrete paving, rock retaining wall, foundations, curbs, asphalt pavement and other site improvements indicated on the project drawings.
3. Clear site of any plant life, vegetation and grass.
4. Remove root system of trees and shrubs.

B. RELATED SECTIONS

1. Section 02211 – Site Rough Grading.

C. REGULATORY REQUIREMENTS

1. Coordinate clearing Work with utility companies and EPISD.

II. EXECUTION**A. PROTECTION**

1. Locate, identify and protect from damage all utilities that are to remain. Contact utility locator service and EPISD prior to commencing work. Contractor shall be responsible for field locating all utilities prior to starting site clearing and excavation.
2. Protect from damage all existing concrete sidewalk, driveways, drainage structures, curbing, asphalt pavement designated to remain as per the project documents.
3. Protect trees, plant growth and features designated to remain as final landscaping.
4. Protect benchmarks and existing structures from damage or displacement.
5. Conduct site operations to ensure minimum interference with roads, streets, walks and adjacent occupied facilities. Protect improvements adjoining the site.

B. CLEARING

1. Clear all areas required for access to the site and execution of work.

2. Remove concrete paving, rock retaining wall, curbs, asphalt pavement and other site improvements as indicated in the project documents. All existing concrete, connecting to the proposed concrete, shall be sawcut to insure a smooth and uniform connection/joint.
3. Completely remove roots with diameter greater than 1-inch or small roots in high density.

END OF SECTION 02110

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PART 1 GENERAL**I. SECTION INCLUDES**

- A. Subsoil materials.

II. RELATED SECTIONS

- A. Section 01400 – Quality Control: Testing soil fill materials.
- B. Section 02223 – Backfilling.

III. REFERENCES

- A. ASTM D1557 – Test Methods for Moisture –Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. (4.54 kg) Rammer and 18-inch (457 mm) Drop.
- B. ASTM D2487 – Classification of Soils for Engineering Purposes.
- C. ASTM D2922 – Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- D. ASTM D3017 – Test Method for Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

IV. SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Samples: Submit, in air-tight containers, sufficient sample quantity of each type of fill as required by testing laboratory.

V. SUBMITTALS FOR INFORMATION

- A. Section 01300 – Submittals: Procedures for submittals.
- B. Materials Source: Submit name of the imported materials source.

VI. QUALITY ASSURANCE

- A. Perform Work in accordance with the City of El Paso standards.

PART 2 - PRODUCTS**I. SOIL MATERIALS**

- A. Structural Fill materials may consist of suitable on-site soils, pit-run, and imported soils that are granular, free of clay lumps, deleterious materials, cobbles or boulders over 3 inches, and crushed asphalt particles no greater than 3 inches in nominal size. The Select Fill should have a liquid limit of less than 35 and a plasticity index of 12 or less. Select Fill soils shall also meet the gradation requirements below:

Sieve Size (square openings)	Percent Passing by Weight
3 inch	100
¾ inch	70 – 100
No. 4	40 – 100
No. 200	10 – 30

Structural Fill soils shall classify as SP-SM, SM, SC, SC-SM, GM, GC, GC-CM, GP, GP-GM, and GP-GC in accordance with the Unified Soils Classification System (USCS). Native soils are not considered Select Fill materials unless they meet the requirements of Select Fill specified hereon.

Soils classified as CH, CL, MH, ML, OH, OL, and PT or combinations of these under the USCS classification and soils that exhibit a plasticity index greater than 15 are not considered suitable for Structural Fill soil materials.

- B. Site Soil: Site soil from cuts may be used for structural fill and backfill provided they meet the requirements in paragraph 1A (above).
- C. Borrow: When the quantity of suitable material required for embankments is not available within the limits of the job site, the Contractor shall provide sufficient materials to construct the embankments to the lines, elevations, and cross sections as shown on the drawings from borrow areas. The Contractor shall obtain from Owners of said borrow areas, the right to excavate material, shall pay all royalties and other charges involved, and shall pay all expenses in developing the source including the cost of Right-Of-Way required for hauling the material.

II. SOURCE QUALITY CONTROL

- A. Section 01400 - Quality Control: Testing and analysis of soil material.
- B. Testing and Analysis of Subsoil Material: Perform in accordance with ASTM D1557, ASTM D2487, ASTM D2922, and ASTM D3017.

- C. Testing and Analysis of Topsoil Material: Perform in accordance with ASTM D1557, ASTM D2487, ASTM D2922, and ASTM D3017.
- D. If tests indicate materials do not meet specified requirements, remove and replace material, and retest.
- E. Provide materials of each type from the same source throughout the Work.

PART 3 - EXECUTION**I. SOIL REMOVAL**

- A. Excavate subsoil and topsoil from areas designated.
- B. Remove lumped soil, boulders, and rock.
- C. Stockpile excavated material in area designated on site and remove excess material not being used, from site.

II. STOCKPILING

- A. Stockpile materials on site at locations approved by the Project Engineer.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate differing materials with dividers or stockpiles apart to prevent mixing.
- D. Prevent intermixing of soil types or contamination.
- E. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

III. STOCKPILE CLEANUP

- A. Remove stockpile and leave area in a clean and neat condition. Grade site surface to prevent freestanding surface water.

END OF SECTION

I. GENERALA. SECTION INCLUDES

1. Removal of topsoil and subsoil.
2. Site cutting, filling, rough grading, and compacting for concrete flatwork, new asphaltic pavement, and site structures.
3. Refer to Site Earthwork specification and Geotechnical Investigation for additional requirements.

B. RELATED SECTIONS

1. Section 02110 – Site Clearing.
2. Section 02205 – Soil Materials.
3. Section 02222 – Excavating
4. Section 02223 – Backfilling.

C. REFERENCES

1. ASTM C136 – Method for Sieve Analysis of Fine and Coarse Aggregates.
2. ASTM D1557 – Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10 lb. (4.54 kg) Rammer and 18 inch (457 mm) Drop.
3. ASTM D2922 – Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
4. ASTM D3017 – Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.

D. QUALITY ASSURANCE

1. Perform Work in accordance with City of El Paso Standards.
2. Refer to Geotechnical Investigation for additional requirements.

II. PRODUCTSA. MATERIALS

1. Structural Fill: As specified in the Section 02010 – General Excavation and Subgrade.

III. EXECUTION

A. EXAMINATION

1. The Contractor is expected to examine the site and determine for himself the character of materials to be encountered.
2. Verify that survey benchmark and intended elevations for the Work are as indicated on Project Documents.

B. PREPARATION

1. Identify required lines, levels, contours, and datum.
2. Stake and flag locations of existing utilities.
3. Locate, identify, and protect from damage all utilities, including fiber-optic lines, which are to remain.
4. Notify appropriate utility companies including all fiber optic cable companies to locate, remove and/or relocate existing utilities as necessary.
5. Protect above and below grade utilities that are to remain.
6. Protect plant life, lawns, and other features that are to remain as a portion of final landscaping.
7. Protect benchmarks, survey control points, and existing structures, fences, walls, sidewalks, concrete lining, asphaltic pavement, and rip-rap from excavating equipment and vehicular traffic.

C. SUBSOIL EXCAVATION

1. Excavate subsoil from areas to be further excavated, re-landscaped, or re-graded.
2. Do not excavate wet subsoil.

3. When excavating through roots, perform work by hand and cut roots with sharp ax.
4. Stockpile in area designated by Project Engineer on site to depth not exceeding 8 feet and protect from erosion.
5. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.

D. FILLING

1. Fill areas with unfrozen materials to contours and elevations indicated in Drawings.
2. Place fill material in continuous layers not exceeding 8 inches, water as necessary and compact in accordance with the schedule at end of this section.
3. Maintain ± 3 percent optimum moisture content of fill materials to attain required compaction.
4. Make grade changes gradual. Blend slope into level areas.
5. Remove surplus fill materials from site and dispose of in accordance with applicable regulations.
6. Unprotected slopes steeper than 1 vertical to 3 horizontal shall be protected by using concrete or rock rip-rap plating. Additionally, slope protection shall also be used at spillways or other areas where stormwater runoff has the potential for eroding the slope. Refer to construction drawings for exact location of these areas.

E. TOLERANCES

1. Top Surface of Subgrade: Plus or minus 1/10 foot from required elevation.

F. FIELD QUALITY CONTROL

1. Testing: In accordance with ASTM D1557, ASTM D2922, and ASTM D3017.
2. If tests indicate Work does not meet specified requirements, remove work, replace and retest.
3. Frequency of Tests: As specified in Section 02010 – General Excavation and Subgrade and as recommended by Geotechnical Engineer.

G. SCHEDULES

1. Subgrade Preparation:
 - a. Sub-excavate areas as required above.
 - b. Proof-roll the bottom of the excavation using appropriate compaction equipment.
 - c. Sufficient passes should be made to develop a minimum dry density of 95 percent based on ASTM D1557 to a depth of 8 inches below the compacted surface.
 - d. Maintain at ± 3 percent moisture condition for optimum compaction.
 - e. Structural fill shall then be placed, as required, in compacted lifts to final grade.
2. Fill:
 - a. The site preparation consists of scarifying the native soils to a depth of eight (8) inches.
 - b. Structural fill shall be non-expansive and meet specifications as outlined in the Geotechnical Investigation and as specified in Section 02205 – Soil Materials.
 - c. Compact to minimum 95 percent of maximum density as per ASTM D1557.

END OF SECTION 02211

I. GENERAL**A. SECTION INCLUDES**

1. Miscellaneous structure backfilling to subgrade elevations.
2. Site filling and backfilling.
3. Fill under concrete flatwork, drainage structures, curbing, retaining walls, and pavements.
4. Fill for over-excavation.

B. RELATED SECTIONS

1. Section 02010 – General Excavation and Subgrade.
2. Section 02222 – Excavating.

C. REFERENCES

1. ASTM D1557 – Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. (4.54 kg) Rammer and 18-inch (457mm) Drop.
2. ASTM D2922 – Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
3. ASTM D3017 – Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.

II. PRODUCTS**A. FILL MATERIALS**

1. Fill: As specified in Section 02205 - Soil Materials.

III. EXECUTION**A. EXAMINATION**

1. Verify that subdrainage, damp-proofing, or waterproofing installation has been inspected and accepted by Project Engineer.
2. Verify structural ability of unsupported walls to support loads imposed by any fill.

B. PREPARATION

1. Compact subgrade to density requirements for subsequent backfill materials.
2. Cut out areas with unsuitable material as indicated by the Geotechnical Investigation and any soft areas of subgrade not capable of compaction in place. Backfill with suitable material and compact to density equal to or greater than requirements for subsequent fill material. Refer to Section IIIC.3 for suitable material.
3. Scarify and proof roll subgrade surface to a depth of 8 inches (minimum) to identify soft spots; fill and compact to a density of not less than 95 percent of the maximum dry density.

C. BACKFILLING

1. Backfill areas with unfrozen materials to required contours and elevations.
2. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
3. Fill material shall preferably consist of clean to slightly silty or clayey fine sands or fine gravels free of organic or other deleterious materials, as defined by Section 02205 – Soil Materials or by the Geotechnical Investigation.
4. Place and compact material in equal continuous layers not exceeding 8 inches uncompacted depth. Sufficient passes shall be made to develop a minimum dry density of 95 percent of the modified Proctor maximum dry density (ASTM D1557).
5. Employ a placement method that does not disturb or damage other work.
6. Maintain plus or minus 2 percent of optimum moisture content of backfill materials to attain the required compaction density.
7. Backfill against supported foundation walls. Do not backfill against unsupported foundation walls.
8. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
9. Make gradual grade changes. Blend slope into level areas.
10. Remove surplus backfill materials from site and dispose of them in accordance with applicable regulations.
11. Leave fill material stockpile areas free of excess fill materials.

12. For additional recommendations on backfilling of material, refer to the Geotechnical Investigation.

E. TOLERANCES

1. Top Surface of Backfilling under concrete lined or rip-rapped areas: Plus or minus 0.10 feet from required elevations.
2. Top Surface of General Backfilling: Plus or minimum 0.10 feet from required elevations.

F. FIELD QUALITY CONTROL

1. Section 01400 – Quality Control: Field inspection and testing.
2. Compaction testing will be performed in accordance with ASTM D1557, ASTM D2922, and ASTM D3017.
3. If tests indicate Work does not meet specified requirements, remove Work, replace, and retest, at no additional cost to the Owner.
4. Frequency of Tests: As recommended by the Geotechnical Engineer.

G. PROTECTION OF FINISHED WORK

1. Protect finished Work under provisions of these specifications.

END OF SECTION 02223

DIVISION III

PART 1 GENERAL

1.1 SUMMARY:

- A. Provide all labor, materials, equipment and incidentals necessary to obtain, transport, deliver and install concrete reinforcing for structures as shown on the drawings.

1.2.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification Sections apply to work of this section.
- B. The work included in this Section is referenced and related to work covered by the following Sections:
 - 1. Section 03100 – Cast-in-Place Concrete

1.3 REFERENCES

- A. This section contains references to the following documents. They are a part of this section as specified and modified. In case of conflict between the requirements of this section and those of the listed documents, the requirements of this section shall prevail. The publications are referred to in the text by basic designation only.
- B. Unless otherwise specified, references to documents shall mean the documents in effect at the time of Advertisement for Bids or Invitation to Bid. If referenced documents have been discontinued by the issuing organization, references to those documents shall mean the replacement documents issued or otherwise identified by that organization or, if there are no replacement documents, the last version of the document before it was discontinued. Where document dates are given in the following listing, references to those documents shall mean the specific document version associated with that date, whether or not the document has been superseded by a version with a later date, discontinued or replaced.
- C. American Concrete Institute (ACI)
 - 1. ACI 318/318R – Building Code Requirements for Reinforced Concrete.
 - 2. SP-66 – Detailing Manual
- D. American Society for Testing and Materials (ASTM)
 - 1. ACI 318/318R – Building Code Requirements for Reinforced Concrete
- E. American Society for Testing and Materials (ASTM)

1. ASTM A 82 – Steel Wire, Plain, for Concrete Reinforcement
 2. ASTM A 184 – Fabricated Deformed Steel Bar Mats for Concrete Reinforcement
 3. ASTM A 185 – Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
 4. ASTM A 497 – Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement
 5. ASTM A 615/A 615M – Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
 6. ASTM A 706/A 706M – Low-Alloy Steel Deformed Bars for Concrete Reinforcement
 7. ASTM A 767/A 767M – Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
- F. American Welding Society (AWS)
1. AWS D1.4 – Structural Welding Code - Reinforcing Steel
- G. Concrete Reinforcing Steel Institute (CRSI)
1. CRSI MSP-1 – Manual of Standard Practice
- H. International Code Council (ICC)
1. 2012 International Building Code

1.4 SUBMITTALS

- A. Submit in accordance with Section 01300, complete product data, for materials specified in this Section.
- B. Shop Drawings: Reinforcement: Submit original shop drawings prepared under the direction of a registered Professional Engineer for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures", CRSI Manual of Standard Practice and ACI SP-66 Detailing Manual showing bar schedules, stirrup spacing, diagrams of bent bars, arrangement of concrete reinforcement.

Include special reinforcement required for openings through concrete structures. Shop drawings shall include a full elevation of each wall showing all vertical and horizontal reinforcing required, and all special or additional reinforcing and all embedded plates. Those details shall include the diagrammatic elevation of all walls, at a scale sufficiently large to show clearly the position and erection marks of all special wall and cantilever wall reinforcing with splice lengths, marginal bars around openings, dowels, splices, etc., for these bars.

- C. Certificates: Certified copies of mill reports attesting that the reinforcing steel furnished meets the requirements specified, prior to the installation of reinforcing steel.
- D. Data: Submit manufacturer's data, lab test reports, and installation instructions for:

1.5 DELIVERY AND STORAGE

- A. Reinforcement and accessories shall be unloaded, handled and stored off the ground on platforms, skids, or other supports in accordance with CRSI publication, "Placing Reinforcing Bars."

PART 2 PRODUCTS

2.1 MATERIALS

- A. Dowels: Dowels shall conform to ASTM A 675/A 675M.
- B. Fabricated Bar Mats: Fabricated bar mats shall conform to ASTM A 184.
- C. Reinforcing Steel: Reinforcing steel shall be deformed billet steel bars (Includes stirrups, ties, and spirals) conforming to:
 - 1. ASTM A 615/A 615M, Grade 60, where welding is not required.
 - 2. ASTM A 706/A 706M, Grade 60, for reinforcing to be welded.
 - 3. ASTM A 767/A 767M, Grade 60, for galvanized bars.
 - 4. Cold drawn wire used for spiral reinforcement shall conform to ASTM A 82.
- D. Welded Wire Fabric: Welded wire fabric shall conform to ASTM A 185 or ASTM A 497 and ACI 318/318R, using ASTM A82 wire of 75 ksi minimum tensile strength.
 - 1. Furnish flat sheets only, rolled sheets not permitted.

2.2.1 ACCESSORIES

- A. Wire Ties: Wire ties shall be 16 gauge or heavier black annealed steel wire.
- B. Supports and Spacers: Bar supports for formed surfaces shall be designed and fabricated in accordance with CRSI MSP-1 and shall be steel or precast concrete blocks. Precast concrete blocks shall have wire ties and shall be not less than 4 inches square when supporting reinforcement on ground. Precast concrete block shall have compressive strength equal to that of the surrounding concrete. Where concrete formed surfaces will be exposed to weather or where surfaces are to be painted, steel supports within 1/2 inch of concrete surface shall be galvanized, plastic protected or of stainless steel. Concrete supports used in concrete exposed to view shall have the same color and texture as the finish surface. For slabs on

grade, supports shall be precast concrete blocks; plastic coated steel fabricated with bearing plates, or specifically designed wire-fabric supports fabricated of plastic.

PART 3 EXECUTION

3.1 REINFORCEMENT

- A. Reinforcement shall be fabricated to shapes and dimensions shown and shall conform to the requirements of ACI 318/318R. Reinforcement shall be cold bent unless otherwise authorized. Bending may be accomplished in the field or at the mill. Bars shall not be bent after embedment in concrete. Safety caps shall be placed on all exposed ends of vertical concrete reinforcement bars that pose a danger to life safety. Wire tie ends shall face away from the forms.
- B. Placement: Reinforcement shall be free from loose rust and scale, dirt, oil, or other deleterious coating that could reduce bond with the concrete.
 - 1. Reinforcement shall be placed in accordance with ACI 318/318R at locations shown plus or minus one bar diameter. Reinforcement shall not be continuous through expansion joints and shall be as indicated through construction or contraction joints.
 - 2. Concrete coverage shall be as indicated or as required by ACI 318/318R. If bars are moved more than one bar diameter to avoid interference with other reinforcement, conduits or embedded items, the resulting arrangement of bars, including additional bars required to meet structural requirements, shall be approved before concrete is placed.
 - 3. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.
- C. Splicing: Splices of reinforcement shall conform to ACI 318/318R and reinforcing bar splices shall be made only as required or indicated on the drawings.
 - 1. Unless otherwise noted or shown on the drawings, splicing of vertical column reinforcing bars shall be by threaded mechanical splice systems. Lap splices may be used only where permitted and specifically shown on the drawings, except that lap splices shall not be used for bars larger than No. 11 unless otherwise indicated.
 - 2. Welding shall conform to AWS D1.4 for welding of high strength steel reinforcing bars. Welded butt splices shall be full penetration butt welds.
 - 3. Lapped bars, where permitted shall be placed in contact and securely tied or spaced transversely apart to permit the embedment of the entire surface of each bar in concrete. Lapped bars shall not be spaced farther apart than one-fifth the required length of lap or 6 inches.

4. Adequate jigs and clamps or other devices shall be provided to support, align, and hold the longitudinal centerline of the bars spliced in a straight line.
- D. Welded Wire Fabric: Welded-wire fabric shall be placed in slabs as indicated.
1. Fabric shall not be placed in slabs on grade.
 2. Fabric shall be continuous between expansion, construction, and contraction joints.
 3. Fabric placement at joints shall be as indicated.
 4. Lap splices shall be made in such a way that the overlapped area equals the distance between the outermost crosswires plus 2 inches.
 5. Laps shall be staggered to avoid continuous laps in either direction.
 6. Fabric shall be wired or clipped together at laps at intervals not to exceed 4 feet.
 7. Fabric shall be positioned by the use of supports.
- E. Slab On Grade Dowels: Dowels shall be installed in slabs on grade at locations indicated and at right angles to joint being doweled. Dowels shall be accurately positioned and aligned parallel to the finished concrete surface before concrete placement. Dowels shall be rigidly supported during concrete placement. Unless noted otherwise on details or notes one end of dowels shall be coated with a bond breaker.
- F. Dowels: Dowels shall be installed, accurately positioned, secured, and rigidly tied to reinforcing steel or other supports in the first concrete placement. Insertion of dowels into plastic concrete after concrete has been placed will not be allowed.
- G. Inspection and Testing:
1. Notify Design Engineer when reinforcing is ready for inspection and allow sufficient time for inspection and correction of deficiencies prior to placing concrete, minimum of 48 hours prior to concrete placement.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, concrete materials, mixture design, placement procedures, and finishes.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification Sections apply to work of this section.
- B. The work included in this Section is referenced and related to work covered by the following Sections:

- 1. Section 03000 – REINFORCING STEEL

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.
- C. Shop Drawings: For formwork.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
 - B. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 301, "Specification for Structural Concrete," Sections 1 through 5.
 - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
 - C. Preinstallation Conference: Conduct conference at Project site.
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PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.2 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 - 1. Portland Cement: ASTM C 150, Type I/II Sulfite resistant, supplement with the following:
 - a. Fly Ash: ASTM C 618, Class F.
- B. Normal-Weight Aggregates: ASTM C 33, graded, 3/4-inch nominal maximum coarse-aggregate size.
 - 1. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M and potable.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
 - 6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.3 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz/sq yd when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, non-dissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering.
- F. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

2.4 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

2.5 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Use fly ash, pozzolan, ground granulated blast-furnace slag, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by no more than 20 percent of cement content by weight.
- C. Proportion normal-weight and light-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: Use compressive strengths as shown on the construction documents at 28 days.
 - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
 - 3. Slump Limit: 4 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
 - 4. Air Content: Air content shall be designed by ready-mix supplier in coordination with the placement and finishing methods of the contractor and the intended application of the concrete. EOR shall review air content in submittal process. Historical performance for the mix design and air content must be substantiated.

2.6 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94 and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION**3.1 FORMWORK**

- A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.

2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

3.4 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
- C. Cold-Weather Placement: Comply with ACI 306.1.
- D. Hot-Weather Placement: Comply with ACI 305.1.

3.5 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 1. Apply to concrete surfaces exposed to public view, and to be covered with a coating or covering material applied directly to concrete.
- C. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:

1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
 2. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix one part portland cement to one and one-half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
 3. Cork-Floated Finish: Wet concrete surfaces and apply a stiff grout. Mix one part portland cement and one part fine sand with a 1:1 mixture of bonding agent and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Compress grout into voids by grinding surface. In a swirling motion, finish surface with a cork float.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.6 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce profile amplitude of 1/4 inch in one direction.
1. Apply scratch finish to surfaces indicated.
- C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Re-straighten, cut down high spots, and fill low spots. Repeat float passes and restraighening until surface is left with a uniform, smooth, granular texture.
1. Apply float finish to surfaces to receive trowel finish and to be covered with fluid-applied or sheet waterproofing, built-up or membrane roofing, or sand-bed terrazzo.
- D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and re-straighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.

1. Apply a trowel finish to surfaces indicated or to be covered with resilient flooring, carpet, ceramic, or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
 2. Finish and measure surface so gap at any point between concrete surface and an unveled, freestanding, 10-foot-long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4 inch.
- E. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces indicated. While concrete is still plastic, slightly scarify surface with a fine broom.
1. Comply with flatness and levelness tolerances for trowel finished floor surfaces.
 2. Reference civil or structural drawings for sloped surfaces and drainage requirements for concrete slabs on grade.
- F. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, sidewalks and elsewhere as indicated.
- G. Polished Finish: Basis of Design Product; Diamond Polished Concrete finish by American Concrete Technologies (www.diamondpolish.com) or approved equals. See Drawings for specific surfaces. Refer to Division 3, "Concrete Floor Finishes".

3.7 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - a. After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound

manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.

4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.
5. Protect concrete scheduled to remain exposed in accordance with Division 3, "Concrete Floor Finishes".

3.8 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.9 FIELD QUALITY CONTROL

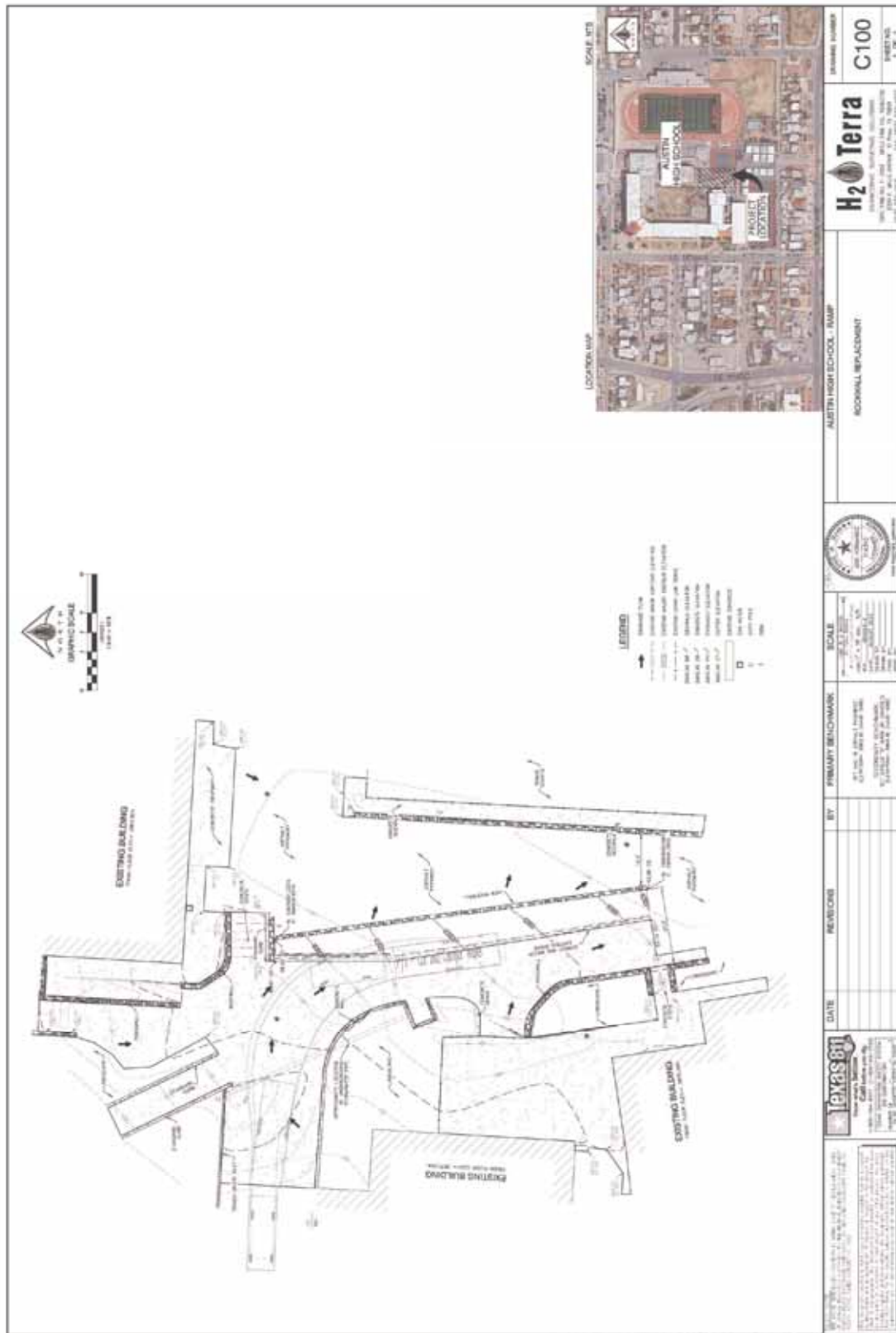
- A. Testing and Inspecting: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
 1. Testing Services: Tests shall be performed according to ACI 301.
- B. Sampling and testing for quality control during concrete placement shall include the following:
 1. Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.
 - a. Slump: ASTM C 143; one test at point of discharge for each day's pour of each type of concrete; additional tests when concrete consistency seems to have changed.
 - b. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231, pressure method for normal weight concrete; one for each day's pour of each type of air-entrained concrete.
 - c. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F (4 deg C) and below, when 80 deg F (27 deg C) and above, and one test for each set of compressive-strength specimens.
 - d. Compression Test Specimen: ASTM C 31; one set of four standard cylinders for each compressive-strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.
 - e. Compressive-Strength Tests: ASTM C 39; one set for each day's pour exceeding 5 cu. yd. plus additional sets for each 50 cu. yd. more than the first 25 cu. yd. of each concrete class placed in any one day; one specimen tested

at 7 days, two specimens tested at 28 days, and one specimen retained in reserve for later testing if required.

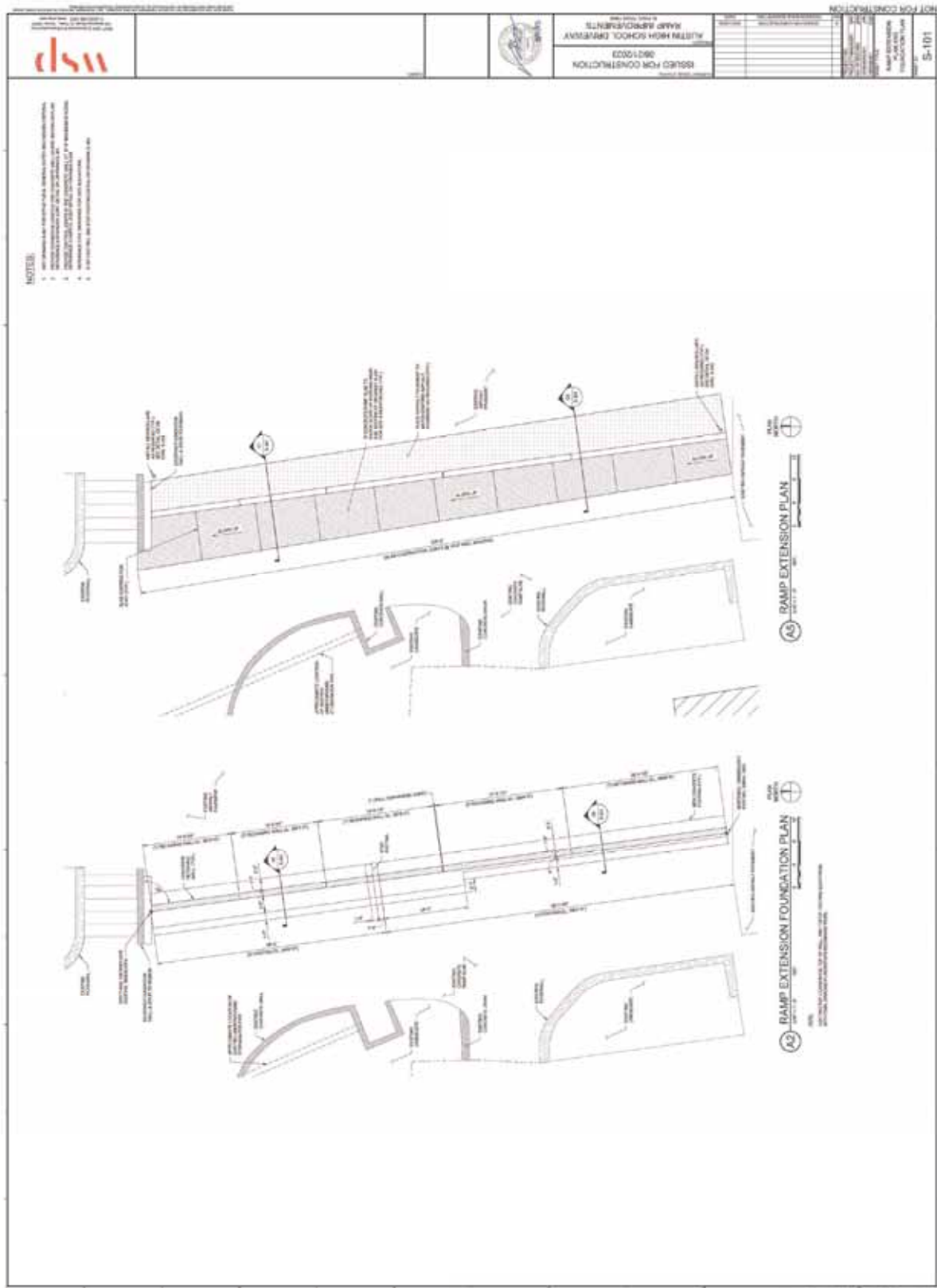
2. When frequency of testing will provide fewer than five strength tests for a given class of concrete, conduct testing from at least five randomly selected batches or from each batch if fewer than five are used.
 3. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.
 4. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength and no individual strength test result falls below specified compressive strength by more than 500 psi.
- C. Test results will be reported in writing to Architect, Engineer, ready-mix producer, and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the Project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both seven-day tests and 28-day tests.
- D. Nondestructive Testing: Windsor Probe, impact hammer or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.
- E. Additional Tests: The testing agency will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Architect/Engineer. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

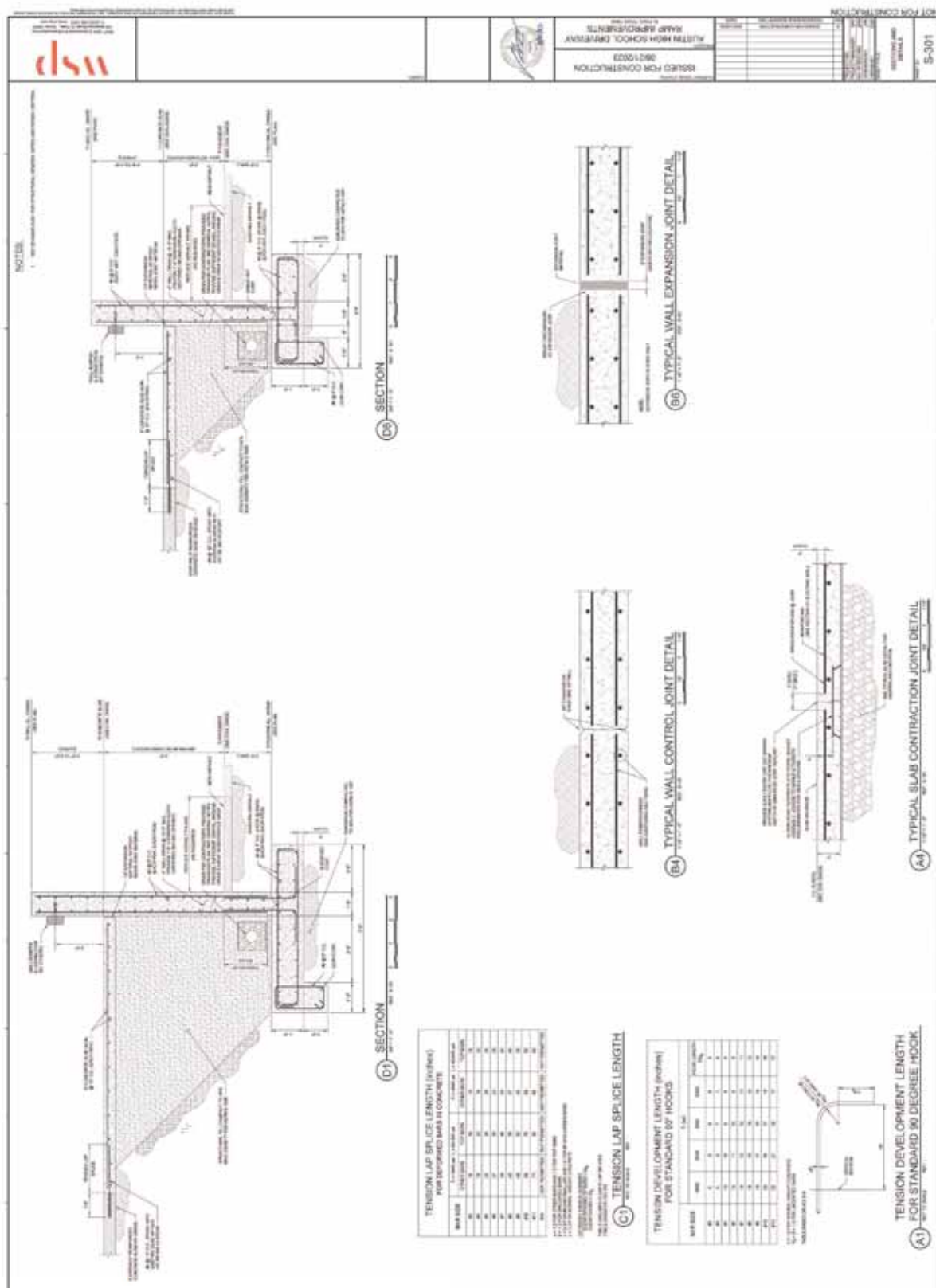
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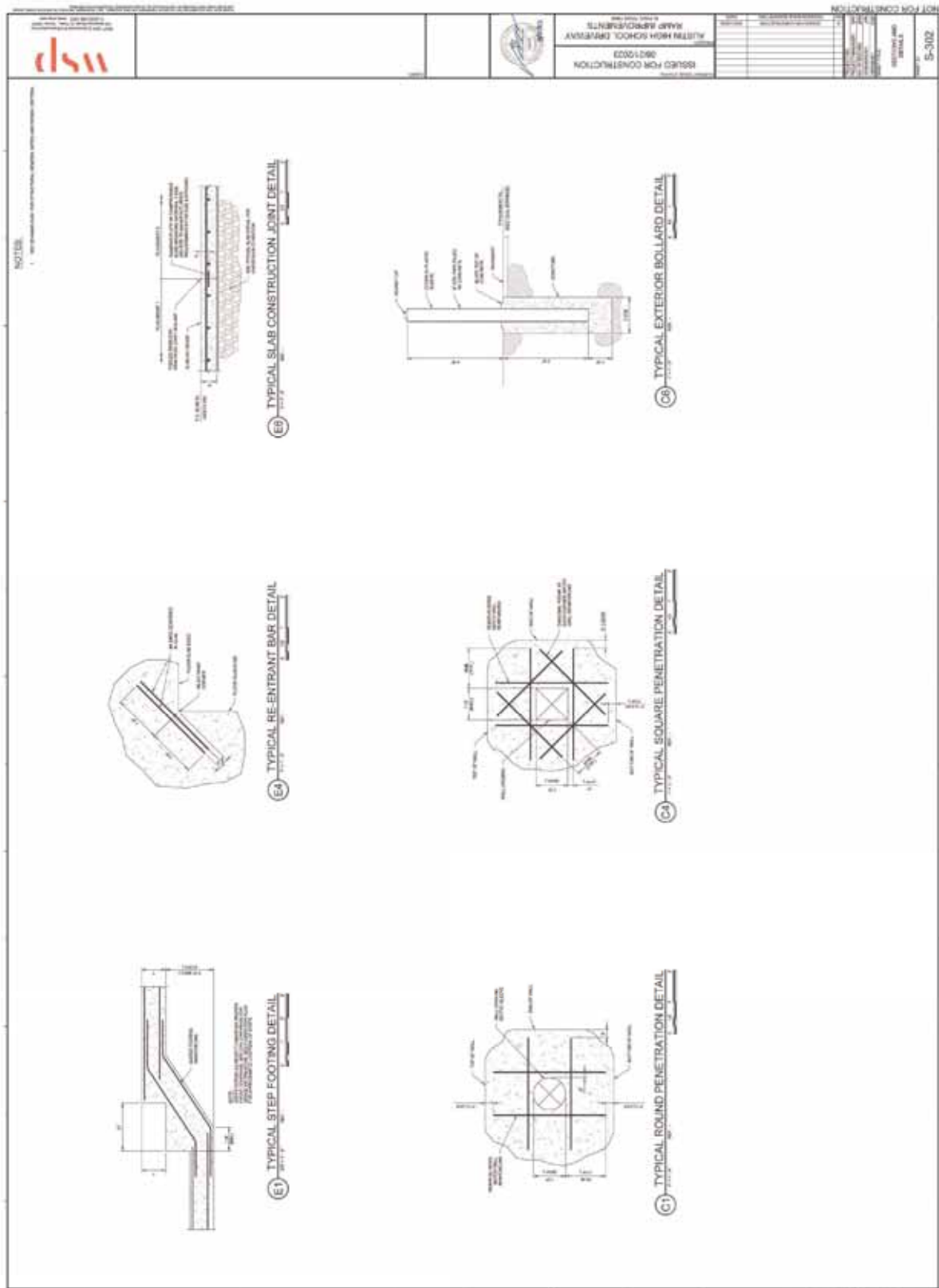
AUSTIN HS DRIVEWAY RAMP IMPROVEMENTS EL PASO, TEXAS  		ISSUED FOR CONSTRUCTION 08/21/2023 AUSTIN HIGH SCHOOL DRIVEWAY RAMP IMPROVEMENTS PROJECT LOCATION 	
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