

COMPETITIVE SEALED PROPOSAL
FOR
UNDERGROUND ELECTRICAL CIVIL
CONSTRUCTION

SOLICITATION NO.: CLMB338



VOLUME 1 OF 2

**City of Austin
Capital Contracting Office
One Texas Center
505 Barton Springs Road, Suite 365
Austin, Texas 78704**

COMPETITIVE SEALED PROPOSAL

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VOL. 2 of 2 MBE/WBE Procurement Program Package

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INVITATION FOR PROPOSALS

Section 00020CSP

1. OVERVIEW AND PROJECT INFORMATION

The City of Austin (City), hereafter referred to as Owner, desires to select up to two (2) General Contractor(s) on the basis of Competitive Sealed Proposals (CSP). Owner will select the successful Offeror(s) that offers the best value to the City based on the published Evaluation Criteria and on its final ranking.

Below is a summary of information related to this Solicitation. Offerors are cautioned to refer to all other sections of the Project Manual, Solicitation Documents, Clarifications and/or Addenda for further details. Evaluation Criteria are specified in Section 00101CSP.

Owner is requesting sealed written Proposals for furnishing all labor, materials, equipment, supervision, incidentals and performing all Work required for the following Project. Owner may award work where materials may be supplied.

Project:	Underground Electrical Civil Construction
Located at:	Various locations throughout the City of Austin
Solicitation No.:	CLMB338

The Work generally consists of providing the following services, including but not limited to a contract labor force, equipment, and supervision for the performance of routine and/or emergency underground electric transmission / distribution services, or for the performance of any related work as Owner may deem necessary. In addition, this Contract is to provide Owner with materials and specialty services, which may also be required on an emergency or short notice basis. It is the intent that the Contractor propose and provide methods of communication between the Contractor and the Owner for meeting and scheduling assigned work, documentation for performance and payment, and including the Contractors response process for emergencies and business continuity. The intent of this solicitation is to award to one Contractor for each Work Zone, but Austin Energy reserves the right to award both Work Zones to a single contractor based on the evaluation (see 1010 Attachment 4). Austin Energy reserves the right to assign Contractor work outside of an assigned geographic work zone in an emergency or if otherwise required by Austin Energy.

2. CONTRACT TYPE

A Work Assignment (also referred to as Work Order) will be issued to the CONTRACTOR for each specific Work Assignment location. The Work Assignment will include project location, Contract Time, engineering design documents, and other required documentation. The Contract Documents consist of all the applicable City of Austin standard details and specifications with the understanding that full design documents will be provided with each Work Assignment.

When requested by OWNER, the CONTRACTOR will be required to meet the OWNER in the field to discuss details of a potential Work Assignment. The final scope of the Work Assignment will be determined at that time and, if additional details are desired, the CONTRACTOR must request them at that time.

3. TERM OF THE CONTRACT

The Contract will be for an Initial Term of twenty-four (24) months, with the option of four (4) possible twelve (12) month terms. Extension of the Contract will be at the mutual agreement

Proposal Requirements, Contract Forms and Conditions of the Contract

of both the OWNER and the CONTRACTOR. Upon expiration of the Initial Term or any period of extension, the Contractor agrees to "holdover" and continue to perform the Work of Work Assignments under the terms and conditions of this Agreement for such a period as is reasonably necessary for the Owner to resolicit and contract with another contractor and/or complete the Work of any Work Assignment and as required under this Agreement. Any "holdover" period will not exceed 180 calendar days unless mutually agreed on by both parties in writing. The OWNER shall notify the CONTRACTOR within sixty (60) days of the end of a Contract term if the OWNER will not offer an extension, unless both parties agree to different time period. CONTRACTOR shall accept or reject the OWNER's offer to extend the Contract for an additional twelve (12) month term within seven (7) calendar days, unless the parties agree to a different time period. Work Assignments may be issued at any time during the term of the Contract. Work Assignments not completed by the expiration date of the Contract are subject to the terms and conditions of the Contract which will continue in full force and effect.

4. CONTRACT AMOUNT

The Contract Amount will not exceed Twenty-Four million dollars (\$24,000,000) in total for the initial Contract Term and Twelve million dollars (\$12,000,000) in total for each extension option for a Contract Amount not to exceed Seventy-Two million dollars (\$72,000,000) if all options are exercised. This Contract has a potential Contract period of six (6) years as approved by Council or until funds are exhausted. It is anticipated that the above amount will be divided among each of the selected Contractors. This Agreement does not in any way guarantee payment by Owner to Contractor of any of the above amount. In the event available funding during a term has been expended, the City may initiate the early execution of an available extension option. Funding may be increased subject to the availability of funds and further approval of the Austin City Council.

The CONTRACTOR will base its proposal amount on the CONTRACTOR's unit prices and the estimated quantities of Work set forth in the Proposal Form, which will only be used for the purpose of the comparison and evaluation of Proposals. The OWNER will subsequently issue Work Assignments based on the OWNER's needs and not in accordance with the estimated quantities contained in the Proposal documents up to the aggregated Contract Amount of seventy-two million dollars (\$72,000,000), subject to further appropriations.

Each Work Assignment must be finally completed within the Contract Time established by the OWNER for each Assignment. The OWNER will consult with the CONTRACTOR regarding the duration of each Work Assignment, but the OWNER will have the ultimate discretion on the duration of the Assignment, which shall be reasonably determined. Work must continue through successive Working Days and approved working hours.

4.1 Proposal Price Adjustments

Proposal prices may be adjusted on the basis of an increase or decrease of the existing prices upwards or downwards in accordance with the index as identified in Section 00300AE.

In most cases an index from the Bureau of Labor Standards (BLS) will be utilized; however, if there is more appropriate, industry recognized standard then that index may be selected. If the requested adjustment is not supported by the referenced index, the City, at its sole discretion, may consider approving an adjustment on fully documented market increases.

Calculation elements to determine adjustments:

Proposal Requirements, Contract Forms and Conditions of the Contract

1. **Base Period:** Month and year of the original contracted price (the solicitation close date).
2. **Base Price:** Initial price quoted, proposed and/or contracted per unit of measure.
3. **Adjusted Price:** Base Price after it has been adjusted in accordance with the applicable index change and instructions provided.
4. **Change Factor:** The multiplier utilized to adjust the Base Price to the Adjusted Price.
5. **Weight %:** The percent of the Base Price subject to adjustment based on an index change.

The adjusted prices will be included in a change order and will remain firm throughout the Contract extension period. The prevailing wage rates, Section 00830, will be replaced at the time of an adjusted proposal price increase with the then current prevailing wage rates.

The unit prices submitted by the successful Offeror shall remain firm throughout the first twelve (12) months of the Contract. Proposal prices may be adjusted for the remaining initial term upon CONTRACTOR's request of a Proposal price adjustment in writing or the then current Proposal prices will remain in full force and effect.

Upon receipt of the notice of the exercise of the option for an additional contract term by the OWNER, the CONTRACTOR must request a Proposal price adjustment in writing or the then current Proposal prices will remain in full force and effect.

5. SOLICITATION DOCUMENTS

Proposal Documents are obtained through the City's Austin Finance Online website, log on https://www.austintexas.gov/financeonline/account_services/account/login.cfm. A complete set of Proposal Documents, including all sections of the Project Manual, are included in the attachments section of each solicitation.

All addenda and answers to Proposers' questions will also be posted in the attachments section for each solicitation on the City's Austin Finance Online website.

6. SUBMISSION OF PROPOSAL

The Offeror must either submit one (1) original and one (1) digital/electronic version of the Proposal on Flash Drive in a sealed container to the Capital Contracting Office Bid Opening Desk located at One Texas Center, 505 Barton Springs Rd., Suite 365, Austin, Texas 78704, or Proposals may be submitted electronically via Austin Finance Online (see Solicitation Attachment 1 – Submitting Offers online using eResponse).

Sealed Proposals may be mailed using address below:

Address for US Mail (If mailed to the physical address, the proposal will be returned unopened)
City of Austin
Capital Contracting Office
P. O. Box 1088
Austin, Texas 78767

NOTE: Proposals must either be received and time stamped in the Capital Contracting Office prior to the Due Date and Time or submitted electronically via

Austin Finance Online. The time of record for those electronically submitted is the time received in Austin Finance Online. It is the responsibility of the Offeror to ensure that their Proposal arrives at the reception desk in the Capital Contracting Office or electronically prior to the time and date indicated. Arrival at the City's mailroom, mail terminal, or post office box will not constitute the Proposal arriving on time.

Public Proposal Opening

Due to the unprecedented event of COVID-19 and to help prevent the further spread, Capital Contracting Office will NOT be conducting an in-person Proposal Opening. Proposers must either submit their Proposals and Compliance Plans no earlier than 10:00 AM and prior to 2:00 PM on the date Proposals are due to One Texas Center, 505 Barton Springs Rd., Suite 365, Austin, Texas 78704; or must submit Proposals and Compliance Plans electronically via Austin Finance Online prior to 2:00 PM on the day proposals are due. Proposals and Compliance Plans submitted after 2:00 PM on the date Proposals are due will not be accepted. The Capital Contracting Office will open both the sealed Proposals and Proposals received electronically via Austin Finance Online at 3:00 PM on the date proposals are due.

Offerors may watch the Proposal Opening online using the following Web link: [Proposal Opening Link](#)

ALL PROPOSALS AND COMPLIANCE PLANS ARE DUE PRIOR TO (Austin time) 2:00 PM on September 14, 2021. PROPOSALS WILL BE OPENED AT (Austin time) 3:00 PM on September 14, 2021.

ALL PROPOSALS AND COMPLIANCE PLANS NOT RECEIVED PRIOR TO THE DATE AND TIME SET FORTH ABOVE WILL NOT BE ACCEPTED FOR CONSIDERATION. The time stamp clock in SUITE 365 is the time of record and is verified with www.time.gov, the official U.S. time. For Proposals submitted electronically via Austin Finance Online, the time of record is the time received in Austin Finance Online.

7. VENDOR REGISTRATION AND NON-DISCRIMINATION

All Prime Contractors and all Subcontractors must be registered with the OWNER prior to execution of a contract. Prime Contractors are responsible for ensuring that their Subcontractors are registered as vendors with the City of Austin. Registration can be done through the OWNER's on-line Vendor Registration system. Log onto and follow directions: https://www.austintexas.gov/financeonline/account_services/account/login.cfm

The City of Austin, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all Proposers that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit Proposals in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

8. MBE/WBE PROCUREMENT PROGRAM

All City procurements are subject to the City's Minority-Owned and Women-Owned Business Enterprise Procurement Program found at Chapter 2-9-A of the City Code, as amended. The Program provides Minority-Owned and Women-Owned Business Enterprises (MBEs/WBEs) or

Proposal Requirements, Contract Forms and Conditions of the Contract

Disadvantaged Business Enterprises (DBEs) full opportunity to participate in all City contracts. Goals for MBE/WBE or DBE participation are stated for each solicitation. Information on achieving the goals or documenting good faith efforts to achieve the goals are contained in the MBE/WBE Procurement Program Package or DBE Procurement Program Package attached to the solicitation. When goals are established, Proposers are required to complete and return the MBE/WBE or DBE Compliance Plan with their Proposal. If a Compliance Plan is not submitted prior to the date and time set forth in the solicitation, the Proposal will not be accepted for consideration.

9. ANTICIPATED SELECTION SCHEDULE

The evaluation, ranking, and negotiations for selection of the prime contractor for this project is anticipated to be completed and submitted to the Austin City Council for action by December 2021.

If Owner is unable to negotiate a satisfactory contract with the top-ranked firm(s) within **45** calendar days, Owner will formally end negotiations with that firm in writing and may proceed to the next offeror in the order of the selection ranking, until a contract is reached or all negotiations end. The Owner, in its complete discretion, may elect to extend the time for negotiations with any firm for an additional period of time.

10. BID GUARANTY

All Proposals shall be accompanied by an acceptable Bid guaranty in an amount of not less than five percent (5%) of the total Proposal, as specified in Section 00100, Instructions to Offerors.

11. BONDS AND INSURANCE

Performance and payment bonds when required shall be executed on forms furnished by OWNER. Each bond shall be issued in an amount of one hundred percent (100%) of the Contract Amount by a solvent corporate surety company authorized to do business in the State of Texas and shall meet any other requirements established by law or by OWNER pursuant to applicable law.

Minimum insurance requirements are specified in Section 00810AE, Supplemental General Conditions.

12. WAGE COMPLIANCE

Minimum wage rates have been established and are specified in Section 00830, Wage Rates and Payroll Reporting.

13. CONTRACT TIME

Contract Time is of the essence and all Work Assignments shall be completed within the number of days specified in the Notice to Proceed.

Proposal Requirements, Contract Forms and Conditions of the Contract

Work under this Contract will be issued as individual Work Assignments, as defined within Supplemental General Conditions, Section 00810AE. In addition, Work to be performed is generally outlined in the Summary of Work, Section 01010. Work duration and designations of final completion will be specific to each Work Assignment. Failure by the CONTRACTOR to satisfy the final completion requirements of any Work Assignment may be cause to stop issuance of further Work Assignments. The CONTRACTOR shall note that there may be multiple individual Work Assignments active at any given time.

Work contained within individual Work Assignments will vary based on the scope of Work. An individual Work Assignment may designate a final completion date, after which liquidated damages will be assessed until final completion is achieved, in accordance with the Proposal Form, Section 00300CSP AE.

In addition, the CONTRACTOR will be required to have someone available and on-call at all times during the Contract to provide emergency on-call services as discussed in Section 01010, Summary of Work. A CONTRACTOR who fails to meet the emergency response obligations of this Contract may be found in breach of this Contract.

14. OWNER'S RIGHTS

OWNER reserves the right to reject any or all Proposals and to waive any minor informality in any Proposal or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Proposal).

15. PRE-RESPONSE MEETING

A **non-mandatory** Pre-Response Conference will be held on August 23, 2021 at 9:30 AM (Austin time), via webinar. Offerors may participate in the virtual pre-proposal conference by clicking this link: [Click here](#)

Offeror must virtually arrive and sign-in via Microsoft Forms by either using the QR code which will be displayed on the introduction slide or by clicking on the provided link that will be posted into the live stream question and answer field. If you have trouble accessing the link or QR code please send an email to **lynn.rich@austintexas.gov** providing the following information: Your name, email address, the firm you are representing, whether you are a prime firm or subcontractor, and also indicate if your firm is an MBE/WBE or DBE. If the Pre-Response Conference is mandatory, Offerors must sign into the meeting using one of the methods above within fifteen (15) minutes of the scheduled start time of the meeting, otherwise the Offeror will not be allowed to submit a Proposal for the project.

16. SERVICE-DISABLED VETERAN BUSINESS ENTERPRISE (SDVBE) PROGRAM

This Contract is subject to the provisions of the City's Interim Service-Disabled Veteran-Owned Business Enterprise (SDVBE) Program as established by City Council Resolution No. 20160303-016. **See the Service-Disabled Veteran-Owned Business Enterprise Contractor Certification Form 00480 included in the Solicitation.** If a respondent is a SDVBE, and wants to participate in the Program, the City requires a certification with their Offer certifying that they are State Historically Underutilized Business (HUB) Service-Disabled Veteran-Owned Business.

17. ANTI-LOBBYING AND PROCUREMENT

On June 14, 2018, the Austin City Council adopted Ordinance No. 20180614-056 replacing Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly had communication restricted in the ordinance section 2-7-104 during the No-Lobbying Period as defined in the Ordinance. The text of the City Ordinance is posted on the Internet at:

https://assets.austintexas.gov/purchase/downloads/New_ALO_Ordinance_No_20180614-056.pdf

18. AUTHORIZED CONTACT PERSONS

The persons listed below may be contacted for information regarding the Invitation for Proposal.

PROJECT MANAGER:

Name: Chad Leingang

Phone: 512-505-7144

Email: Chad.Leingang@austinenergy.com

CAPITAL CONTRACTING OFFICE CONTACT:

Name: Lynn Rich

Phone: 512-974-7009

Email: lynn.rich@austintexas.gov

SMALL & MINORITY BUSINESS RESOURCES DEPARTMENT CONTACT:

Name: Kenneth Kalu

Phone: 512-974-7621

Email: kenneth.kalu@austintexas.gov

END



How to Submit Offers Online eResponse Instructions

Revised: 6/17/2021

Submitting Offers online using eResponse. **(Only available for IFB, RFP and RFQS Solicitations)**

Internet Explorer is not supported – please use Chrome, Edge or Firefox

- 1. Create an eResponse.** Find the Solicitation you wish to respond to in Austin Finance Online (AFO), located at: <https://www.austintexas.gov/financeonline/finance/>. If the Solicitation includes the “eResponse” function, it will have a “My Response” section in the Solicitation’s Detail page. Click on “Create Response” to start an eResponse (Fig. 1).

The screenshot shows the 'SOLICITATION DETAILS' page in the Austin Finance Online (AFO) system. The page includes a header with 'eResponse Instructions', 'Subscribe', and 'Print PDF' buttons. The main content area displays the following information:

- Type:** Invitation For Bids (IFB)
- Status:** Open
- Solicitation Number:** IFB 2200 WJT1006
- Description:** Fire Hydrant Repair Parts
- Summary:** The City of Austin (City) seeks to establish a contract with a qualified Contractor(s) to provide fire hydrant repair parts. The repair parts shall be utilized for repair of fire hydrants throughout the City.

Below the details is a section titled 'My eResponse' with a blue header. It contains the following text:

To begin creating a Response to this Solicitation, click the "Create Response" button below.

See the Solicitation documents in the Attachments section below for further instructions on developing and submitting your Response.

A green button labeled 'Create Response' is visible at the bottom left of the 'My eResponse' section, with a red arrow pointing to it from the right.

(Fig. 1)

- To create, edit, or submit an eResponse, you must be logged in to your vendor account as the primary contact.

You are eligible to submit an eResponse after creating a user account and providing the business information of your organization. If selected for award, you must complete and submit your registration for approval.

Register Here: https://www.austintexas.gov/financeonline/afo_content.cfm?s=17

If you are not the primary contact of your account, the Create Response button will not appear after you have logged in. Please contact Vendor Registration for assistance at vendor@austintexas.gov, and inform them that you are unable to submit an eResponse.

- If you click on “Create Response” but you have not yet logged into AFO, the system will redirect you to a login screen (Fig. 2). Once you have logged into AFO, the system will take you back to the Solicitation.



How to Submit Offers Online eResponse Instructions

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AUSTIN FINANCE ONLINE

FINANCIAL DOCUMENTS STRATEGIC PLAN CHECKBOOK UNCLAIMED PROPERTY PROCUREMENT

ACCOUNT LOGIN

Username

Password

Login

Don't remember your username? [Retrieve your username](#)

Forgot your password? [Reset your password](#)

Don't have an account yet? [Create an account](#)

(Fig. 2)

- c. Once you click “Create Response”, you will now see a Response ID, Vendor Name, the date and time that you created your eResponse, the date and time you last revised your eResponse and the status of your eResponse, which should be “DRAFT” initially. The field at the top of the section will be shaded red and will list the types of documents that are required to submit your eResponse. Please refer to the solicitation instructions for a list of all required documents for that solicitation. If you make a mistake or attempt to add an unsupported file, an error message will appear in this red field (Fig. 3).

My eResponse

- Price Offer document is required.
- Offer and Certifications document is required.

Response ID	Vendor	Created	Last Revised	Status
740	TEST VENDOR2 - TC	05/14/2020, 02:06 PM	05/14/2020, 02:06 PM	DRAFT

+ Add Files

Delete eResponse

Filename	Type
----------	------

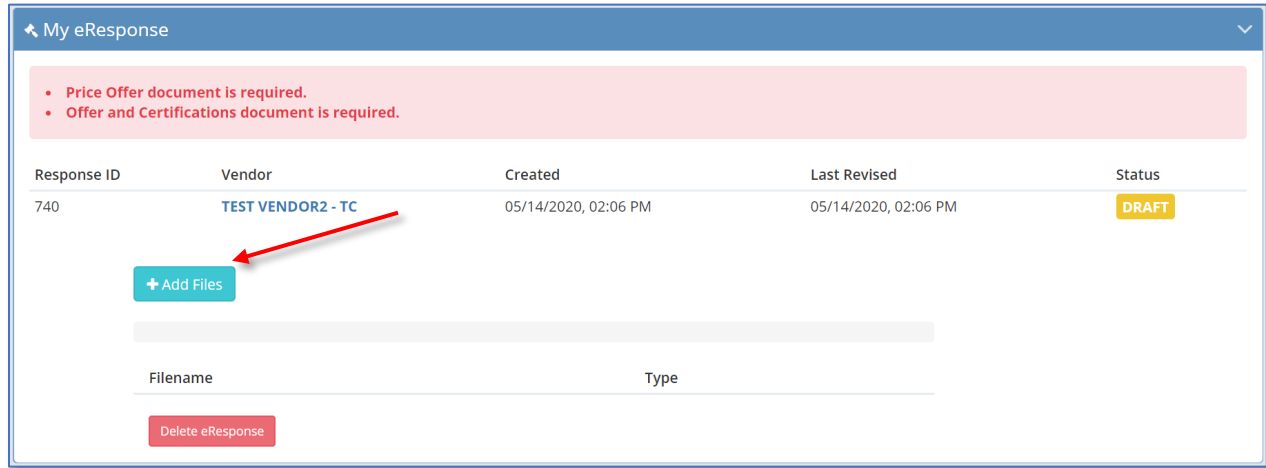
(Fig. 3)



How to Submit Offers Online eResponse Instructions

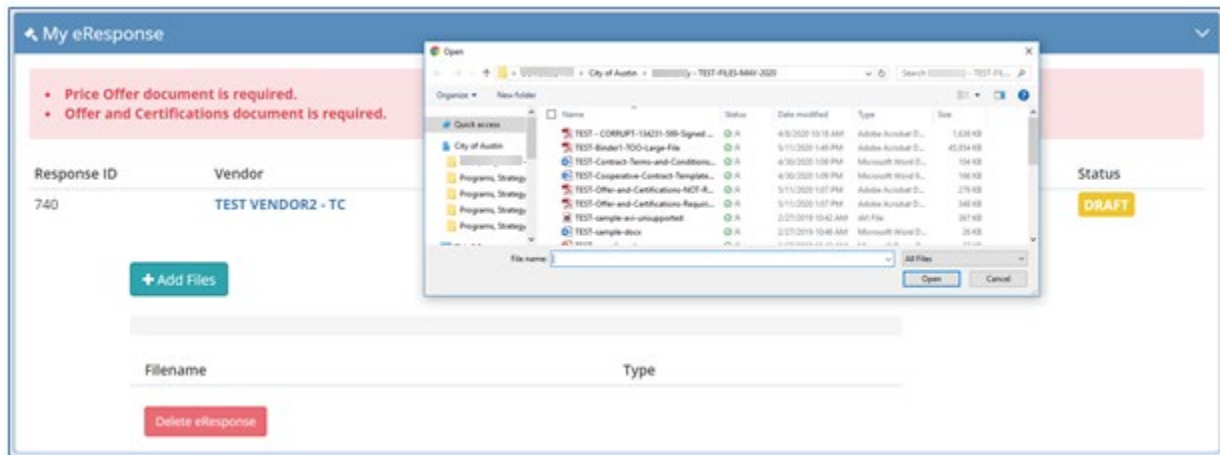
Revised: 6/17/2021

2. **Adding Files to Your eResponse.** To upload files to your eResponse, click on the blue “+ Add Files” button (Fig. 4).



(Fig. 4)

a. After clicking the “+ Add Files” button, a pop-up window will open displaying files on your computer (Fig. 5).



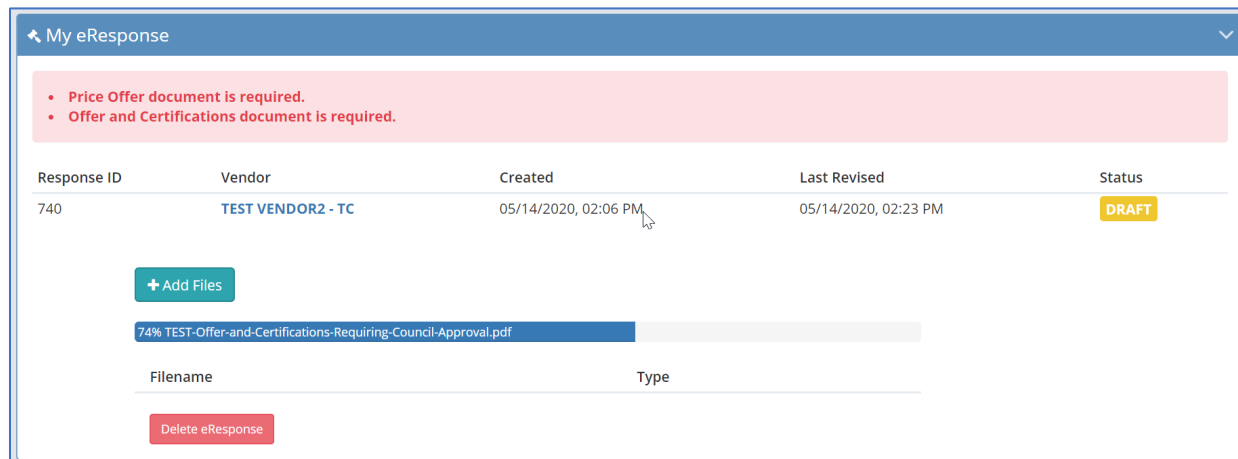
(Fig. 5)



How to Submit Offers Online eResponse Instructions

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- b. Navigate on your computer to where your files are located. Select the file or files you wish to upload and click “Open”. The blue indicator bar moving from left to right will show your file being uploaded (Fig. 6)



(Fig. 6)

- c. Repeat this step to add additional files to your eResponse.

- 3. **File Types Accepted.** The eResponse functionality in AFO accepts the following electronic file types (Fig. 7). Please note that your Price Offer cannot be in a .ZIP file format. It is recommended that your Price Offer be in a .XLS or .XLSX file format.

.PDF	.DOC	.DOCX
.TXT	.ZIP	.XLS
.XLSX		

- a. Only use numbers, letters, underscore, period, spaces and hyphens in your file names. No special characters. A warning message will display in the red notice box and the file will not be accepted.

(Fig. 7)

- 4. **Number and Size of Files Allowable.** AFO accepts no more than fifteen (25) files in an eResponse. eResponse will not accept a single file greater than 40 MB.
- 5. **eResponse Only Accepts One Submission per Vendor per Solicitation.** If alternate offers are being accepted, you will need to submit those along with your primary submission. Alternates can be multiple pages in a single “Price Offer” file or uploaded as a separate document by selecting “Other” from the drop down.
- 6. **Identify Your Files.** As you add files, you will see a dropdown menu to the right of the Filename, under “Type”. Use this dropdown menu to select the appropriate type of file. (Fig. 8).
 - a. For Invitations for Bids (IFB), the following files must be included:



How to Submit Offers Online eResponse Instructions

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- i. Select the "Offer and Certifications" type for the file which contains your signed Offer Sheet and all the certifications in that attachment which require completion and signature. You can only identify one (1) file as your "Offer and Certifications."
- ii. Select "Price Offer" type to identify your price submission. You can only identify one (1) file as your "Price Offer." *Please note, this submission becomes publicly available on the Closed Solicitations page of Austin Finance Online once solicitations have been opened. Any documents that are not related to your price submission should not be included in the same document file as your "Price Offer". For this reason, your Price Offer cannot be in a .ZIP file format. It is recommended that your Price Offer be in a .XLS or .XLSX file format. Please provide all non-price related documents in a separate upload from your "Price Offer" and categorize it appropriately. The City of Austin is not responsible for the inadvertent release of any proprietary information included in a Price Offer document.
- iii. If required, select "Compliance Plan" type to identify the file that includes your compliance plan. You can identify multiple files as "Compliance Plan" types.
- iv. Select the "Technical Offer" type for any files that contain any information required to be submitted other than the Offer and Certifications and Price Sheet. You can identify multiple files as "Technical Offer" types.
- v. You will not be able to submit your eResponse if you have not identified at least one file as "Offer and Certification" and another as "Price Offer". Once you do, the red warning bar across the top of the My eResponse section will turn blue and read "Your eResponse is ready for submission".

b. For Requests for Proposals (RFP), the following files must be included:

- i. Select the "Offer and Certifications" type for the file which contains your signed Offer Sheet and all the certifications in that attachment which require completion and signature. You can only identify one (1) file as your "Offer and Certifications."
- ii. Select "Price Offer" type to identify the file that includes your price submission. You can only identify one (1) file as your "Price Offer." Your Price Offer cannot be in a .ZIP file format. It is recommended that your Price Offer be in a .XLS or .XLSX file format. The City of Austin is not responsible for the inadvertent release of any proprietary information included in a Price Offer document.
- iii. If required, select "Compliance Plan" type to identify the file that includes your compliance plan. You can identify multiple files as "Compliance Plan" types.
- iv. Select the "Technical Offer" type for any files that contain any information required as part of the proposal submittal requirements in the instructions section. You can identify multiple files as "Technical Offer" types.
- v. You will not be able to submit your eResponse if you have not identified at least one file as "Offer and Certification" and another as "Price Offer". Once you do, the red warning bar across the top of the My eResponse section will turn blue and read "Your eResponse is ready for submission".

c. For Requests for Qualifications Statements (RFQS), the following files must be included:



How to Submit Offers Online eResponse Instructions

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- i. Select the “Offer and Certifications” type for the file which contains your signed Offer Sheet and all the certifications in that attachment which require completion and signature. You can only identify one (1) file as your “Offer and Certifications.”
- ii. If required, select “Compliance Plan” type to identify the file that includes your compliance plan. You can identify multiple files as “Compliance Plan” types.
- iii. Select the “Technical Offer” type for any files that contain any information required as part of the qualification’s submittal requirements in the instructions section. You can identify multiple files as “Technical Offer” types.
- iv. You will not be able to submit your eResponse if you have not identified at least one file as “Offer and Certification”. Once you do, the red warning bar across the top of the My eResponse section will turn blue and read “Your eResponse is ready for submission”.

The screenshot shows the 'My eResponse' interface. At the top, there is a red warning bar with two messages: 'Price Offer document is required.' and 'Offer and Certifications document is required.' Below this is a table with the following data:

Response ID	Vendor	Created	Last Revised	Status
1562	AMS TEST VENDOR	08/05/2020, 08:12 AM	08/05/2020, 08:16 AM	DRAFT

Below the table, there is a '+ Add Files' button. Underneath, there is a list of files with their names and selected types:

File Name	Type
✘ Addendum.docx	Technical Offer
✘ Compliance-Plan.pdf	Technical Offer
✘ Offer-and-Certifications.doc	Technical Offer
✘ Price-Offer.doc	Technical Offer

A dropdown menu is open for the 'Price-Offer.doc' file, showing the following options: Price Offer (highlighted), Offer and Certifications, Compliance Plan, Technical Offer, and Other. There is also a 'Delete eResponse' button at the bottom left of the file list area.

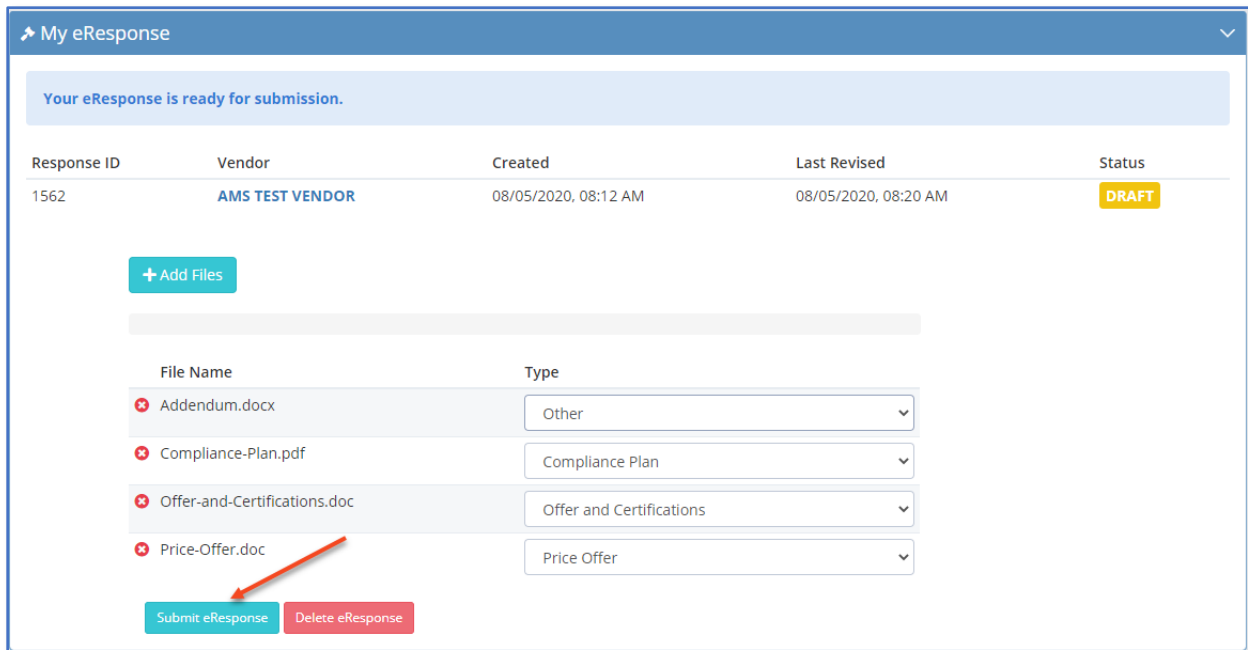
(Fig. 8)

7. **Submitting your eResponse.** Once you have uploaded and identified the types of all the files you need to for your eResponse, the field at the top of the section will turn blue and read “Your eResponse is ready for submission”. Click the “Submit eResponse” button (Fig. 9).



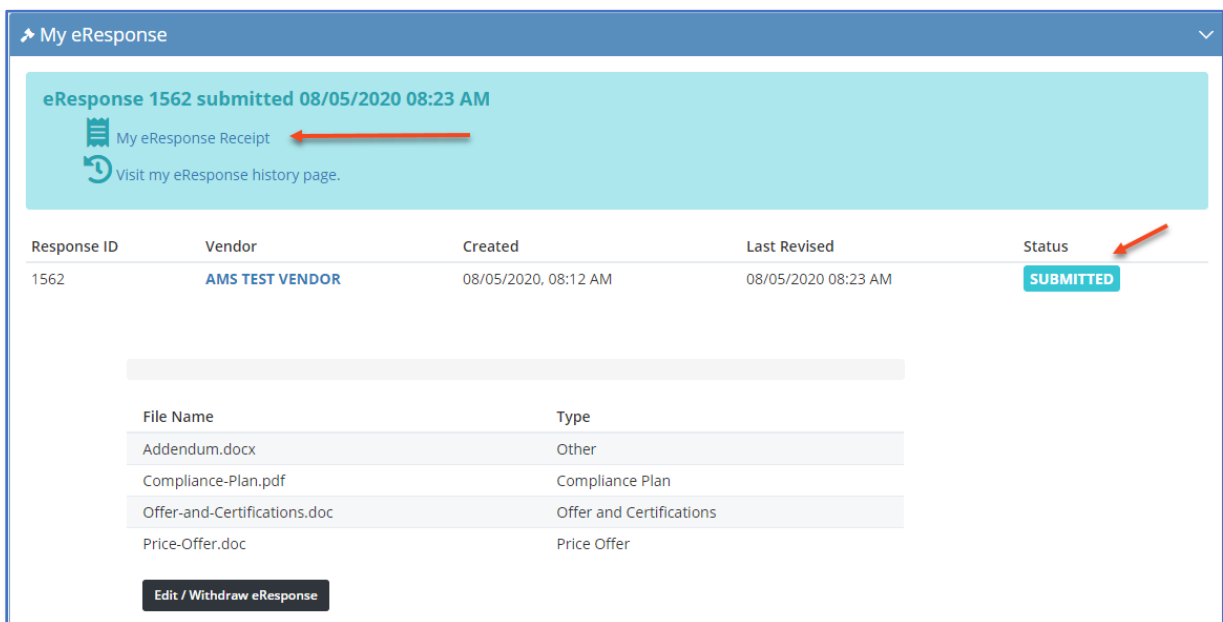
How to Submit Offers Online eResponse Instructions

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(Fig. 9)

- a. After you click the “Submit eResponse” button, the field at the top of the section will turn green and it will display your unique eResponse submission number and the date and time your eResponse was submitted. This field will also display two links to the “My eResponse page” and to a PDF copy of your submission receipt (Fig.10). An automated confirmation email will be sent to you with your eResponse information (Fig. 11).



(Fig. 10)



How to Submit Offers Online eResponse Instructions

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IFB 7400 TEST9915 : Your Response Has Been Submitted

eresponse@austintexas.gov
To [redacted]

Reply Reply All Forward
Fri 10/9/2020 12:25 PM

IFB 7400 TEST9915

Your response to IFB 7400 TEST9915 has been submitted. Your eResponse ID is 2356.

Details	
Solicitation ID	134841
eResponse ID	2356
Submitted	10/09/2020 12:25 PM
Vendor Name	TEST VENDOR2
Vendor Customer Code	TES8304588
File List	
Price Offer	Price-Offer.doc
Offer and Certifications	Offer-and-Certifications.doc
Other	Addendum.docx

For assistance please email vendor@austintexas.gov and visit [Vendor Help](#).

(Fig. 11)

- b. You can return to the Solicitation or your eResponse through the Response History page, or by navigating directly to the solicitation through the Open Solicitations page in AFO. When you return to the Solicitation, you will notice that your Status (upper right corner of the My eResponse section) will say “SUBMITTED”. Your Last Revised date and time will update to the date and time you clicked on the “Submit” button.
 - c. If you start an eResponse and don’t click “Submit eResponse”, your eResponse will stay in “DRAFT” status. Before the Solicitation’s Due Date and Time, you can navigate back to your draft eResponse and submit it.
 - d. eResponses that are still in “DRAFT” status at the Solicitation’s Due Date and Time will not be received by the City.
- 8. Withdrawing or changing an eResponse after it has been submitted.** Prior to the Solicitation’s Due Date and Time, you may withdraw or modify your eResponse. Click on the “Edit/Withdraw eResponse” button (Fig. 12). A pop-up window will appear listing your eResponse ID number and asking if you are sure you want to move your eResponse back to draft. You may select “Yes / Withdraw” to move your eResponse back to draft, or “No / Cancel” to leave your eResponse submitted (Fig. 13).



How to Submit Offers Online eResponse Instructions

Revised: 6/17/2021

My eResponse

eResponse 1562 submitted 08/05/2020 08:23 AM

My eResponse Receipt
Visit my eResponse history page.

Response ID	Vendor	Created	Last Revised	Status
1562	AMS TEST VENDOR	08/05/2020, 08:12 AM	08/05/2020 08:23 AM	SUBMITTED

File Name	Type
Addendum.docx	Other
Compliance-Plan.pdf	Compliance Plan
Offer-and-Certifications.doc	Offer and Certifications
Price-Offer.doc	Price Offer

[Edit / Withdraw eResponse](#)

(Fig. 12)

eResponse Withdrawal

You are withdrawing eResponse No. **1562**

In doing so you are moving your eResponse back into DRAFT status, where you may edit, submit or delete your eResponse. If you intend to submit your eResponse later, you must do so before the solicitation's due date and time. eResponses that are still in in DRAFT status at the solicitation's due date and time cannot be edited, submitted or deleted, and will not be considered. Are you sure you want to withdraw your eResponse?

[Yes / Withdraw](#) [No / Cancel](#)

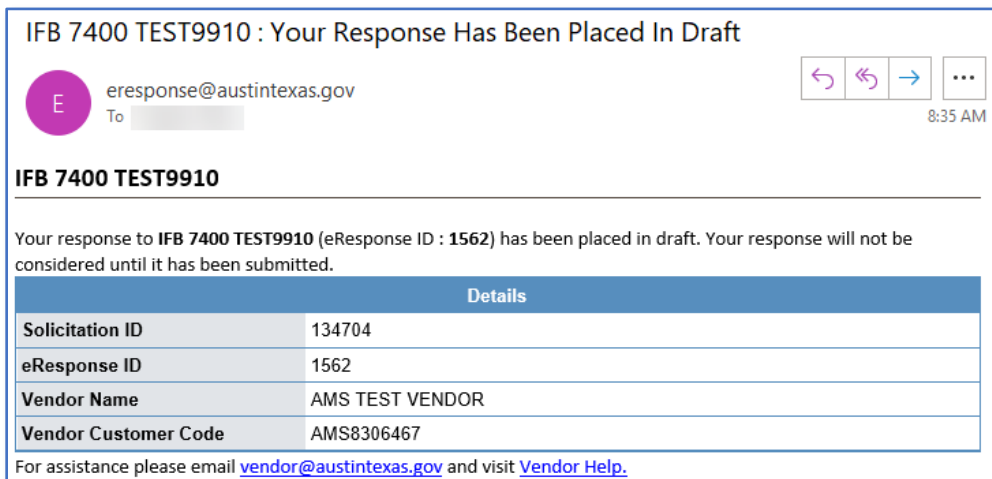
(Fig. 13)



How to Submit Offers Online eResponse Instructions

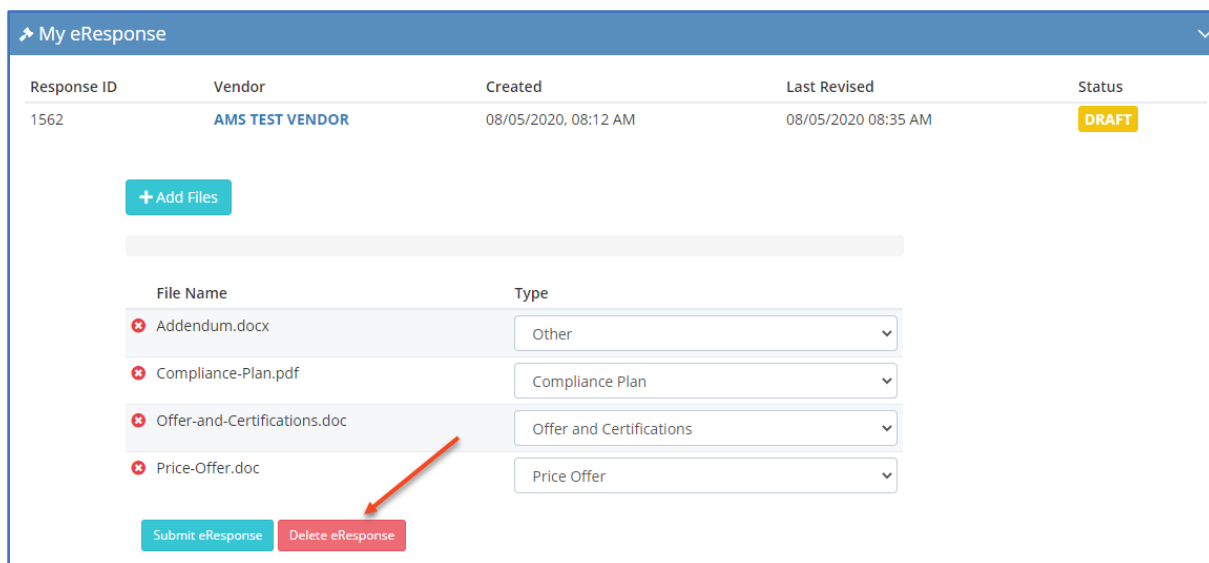
Revised: 6/17/2021

- a. If you select “Yes / Withdraw”, then you will receive an automated confirmand email indicating that your eResponse will not be considered until it has been submitted (Fig. 14).



(Fig. 14)

- b. While your eResponse is in draft, you can add files, delete individual files or delete the entire eResponse.
 - i. To delete the entire eResponse, click the red “Delete eResponse” button at the bottom of the “My eResponse” section. A pop-up window will appear listing your eResponse ID number and asking if you are sure you want to delete. You may select “Cancel” to leave your eResponse in draft, or “Delete” to delete your eResponse permanently (Fig. 15).



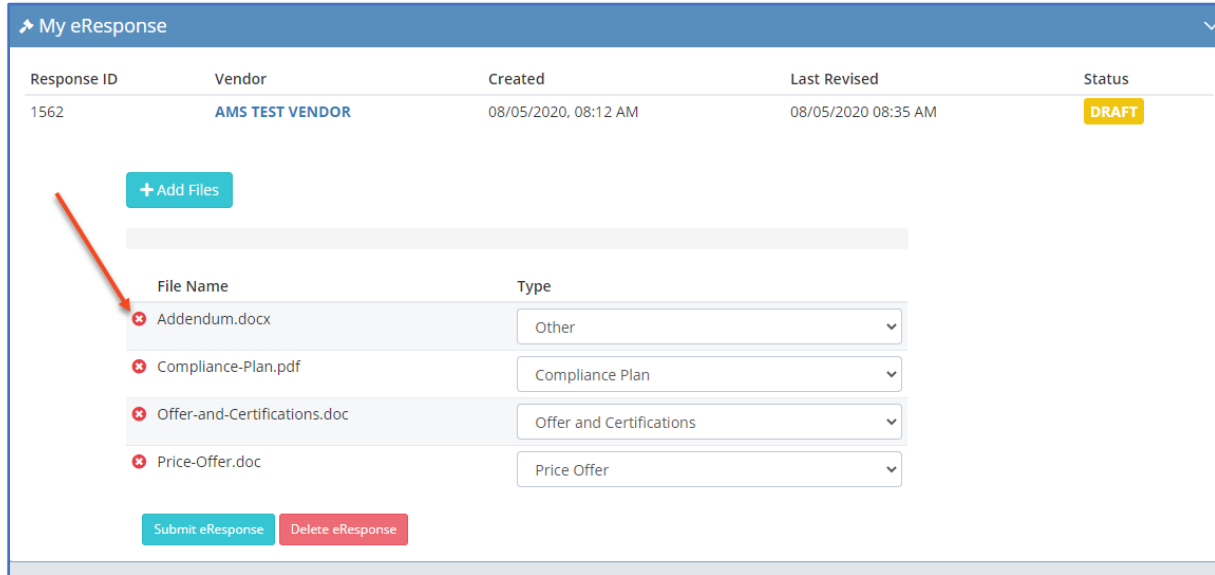
(Fig. 15)



How to Submit Offers Online eResponse Instructions

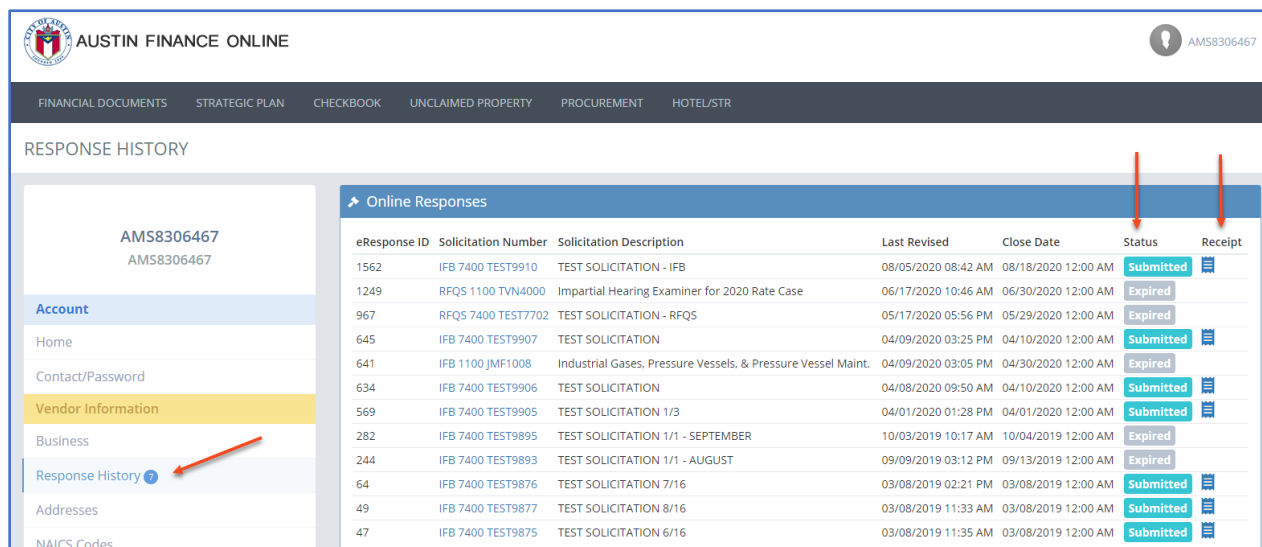
Revised: 6/17/2021

- ii. To delete individual files within an eResponse, click the red circle with the white “X” to the left of the file you wish to delete (Fig. 16).



(Fig. 16)

- 8. **Response History Page.** You can access your “Response History” page anytime from User Dashboard. Click on your username in the upper right corner of AFO. A pop-up window will appear. Click on “Home”. From this page, select “Response History” from the menu on the left. You can see the eResponse ID; Solicitation Number; Solicitation Description; Last Revised date; Close Date and; Status of each solicitation for which you have created an eResponse. By clicking on the link in the solicitation number you can return to the Solicitation Details page and, if the solicitation has not closed, make edits to your eResponse (Fig. 17).



(Fig. 17)



How to Submit Offers Online eResponse Instructions

Revised: 6/17/2021

9. **Bid Opening – Closed Solicitation Page.** The “Closed Solicitation” page serves as the bid opening for all eResponse Submissions. Vendors who submit through eResponse will not hear their name called during the Purchasing Office’s live bid opening webcast. Instead, they should navigate to the “Closed Solicitations” page to see a list of vendors who responded. The “Closed Solicitations” page is accessible through the Procurement dropdown of the AFO menu bar (Fig. 18).

Solicitation Number / Description	Due Date	
RFQ 1100 PMC114709 PUMP SUBMERSIBLE NA	05/21/2020	View Details
IFB 6100 CLMC780 ABIA Elevator Refurbishment Phase 2 The work consists of the refurbishment of ten (10) terminal elevators at ABIA. Specific work elements include mechanical and electrical upgrades to the elevators and elevator cab refurbishing including floor replacement, mental enclosure etc.	05/21/2020	View Details
RFP 5800 MMO3006 AE PROPERTY INSURANCE Property Insurance for Austin Energy.	05/21/2020	View Details

(Fig. 18)

- a. A list of responding vendors will be visible on the “Closed Solicitation” page approximately one hour after the solicitation closes. For IFB solicitations, the Price Offer documents for each vendor will also be visible (Fig. 19).

Vendor Name	Doing Business As	File Name
SEFBO Pipeline Bridge, Inc.		Price Offer Document
MUNIZ CONCRETE & CONTRACTING INC		Price Offer Document
Ayan Tayo Ayanlola	TAA GROUP	Price Offer Document

(Fig. 19)

For assistance with the eResponse system please email Vendor@austintexas.gov

TOTAL PROPOSAL FORM

Solicitation No.:	CLMB338
Project:	Underground Electrical Civil Construction
Offeror:	
Total Proposal Amount: (includes Base Proposal plus any Allowances or Alternates shown in Section 00300CSP AE)	

Notes:

1. This form will be displayed publicly in Austin Finance Online approximately one hour after the solicitation closes.
2. In the case of discrepancies between this form and Section 00300CSP AE, Section 00300CSP AE takes precedence.

INSTRUCTIONS TO OFFERORSSection 00100CSP

1. PREPARATION OF PROPOSALS

1.1 Proposal Documents. Each Proposal should be prepared simply and economically, providing a straightforward, concise description of the Offeror's ability to meet the requirements of this solicitation. Elaborate bindings, colored displays, promotional materials and so forth are not desired. Emphasis should be on completeness, clarity of content, responsiveness to the requirements, and an understanding of the City's (Owner's) needs. Offeror shall also comply with proposal requirements of Section 00101CSP, Evaluation Criteria including page number limitations.

1.2 Vendor Registration. All Prime Offerors and all Subcontractors must be registered with the OWNER prior to execution of a contract. Prime Contractors are responsible for ensuring that their Subcontractors are registered as vendors with the City of Austin. Registration can be done through the OWNER's on-line Vendor Registration system. Log onto https://www.austintexas.gov/financeonline/account_services/registration/registration_user.cfm and follow the directions.

1.3 Modifications to Proposal. Proposals may be modified in writing at any time prior to the due date and time. The person signing the Proposal shall initial any modifications to the Proposal.

1.4 Professional Services. Offeror shall secure any required services that are defined as professional services under the Professional Services Procurement Act, Chapter 2254 of the Texas Government Code (for example: registered professional land surveyors, professional architects and professional engineers) using the qualifications based selection process prescribed by that Chapter. (Note: It is a violation of State Law to solicit Bids for professional services.)

1.5 Sales Tax Exemption. The Owner is a tax-exempt organization as defined by Chapter 11 of the Property Tax Code of Texas. Proposed prices shall not include sales tax on materials, supplies, or equipment that are incorporated into the real property interest of the Owner or are otherwise completely used and consumed in the performance of the Contract. Owner will furnish Contractor with a Sales Tax Exemption Certificate to be issued to Suppliers in lieu of the tax.

1.6 Addenda. Offeror shall be knowledgeable of all Addenda issued and shall acknowledge all Addenda in spaces provided on proposal form. Further information regarding the Solicitation Documents and the Project may be obtained from the City's Project Manager or Contract Procurement Representative listed in Section 00020CSP, Invitation for Proposals.

1.7 Required Items. Offers must include all specified items in this section and be submitted in accordance with Section 00101CSP, Evaluation Criteria.

1.8 Disclosure of Proprietary Information. All materials submitted to Owner become public property and are subject to the Texas Public Information Act, Government Code Chapter 552, upon receipt. If Offeror does not desire proprietary information in the Proposal to be disclosed, each page must be identified and marked "proprietary" at time of submittal. Owner will, to the extent allowed by law, endeavor to protect such information from disclosure. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General. Failure to identify proprietary information will result in all unmarked sections being deemed non-proprietary and available upon public request.

1.9 Costs of Preparing Proposal. All costs directly or indirectly related to preparation of a Proposal to this Solicitation or any oral presentation required to supplement and/or clarify a Proposal, which may be required by Owner, shall be the sole responsibility of the Offeror.

1.10 Further Information. Information may be obtained by calling the City's Project Manager listed in Section 00020CSP, Invitation for Proposals. Persons desiring further information or interpretation of the solicitation requirements shall make a written request for such information to Owner no later than seven (7) working days before Proposal submittal due date and time. Interpretation of Solicitation Documents will be made by Addendum **only** and a copy of each Addendum is available through the City's Vendor Connection website. Log on to the site below and follow directions as required:

https://www.austintexas.gov/financeonline/vendor_connection/index.cfm.

1.11 Legal Status of Offeror. Only individual firms or lawfully formed formal business organizations may apply, unless, if Offeror does not meet the foregoing criteria, Offeror states in writing to Owner that, if awarded the contract, it will form a formal business organization in a timely manner so as not to delay the Project. Any associations will be disqualified (this does not preclude Offeror from having subcontractors/subconsultants). Owner will contract only with individual firms or formal organizations such as a) joint ventures, b) limited liability corporations, c) partnerships, or d) corporations authorized to do business in the state of Texas.

1.12 Anti-Lobbying and Procurement. Article 6, Chapter 2-7, Austin City Code, prohibits lobbying activities or representations by the Offeror between the date that the request for CSP is issued and the date of contract execution. The text of the pertinent City Ordinance may be viewed at: [20111110-052, Ordinance \(austintexas.gov\)](https://www.austintexas.gov/ordinance/20111110-052)

1.13 City's Minority-Owned and Women-Owned Business Enterprise (MBE/WBE) Program Requirements.

Good Faith Efforts. When an Offeror cannot achieve the MBE/WBE goals or subgoals established for the project, the bidder must document its Good Faith Efforts to meet the goals or subgoals. Good Faith Effort evaluations will consider, at a minimum, the offeror's efforts to do the following:

- .1 Soliciting through at least two reasonable, available and verifiable means MBEs/WBEs within the Significant Local Business Presence boundaries at least seven (7) business days prior to the bid opening date to allow the MBEs/WBEs to respond to the bid.
- .2 Providing interested MBEs/WBEs adequate information about the bid documents and requirements, including addenda, in a timely manner to assist them in responding to the bid.
- .3 Negotiating in good faith with interested MBEs/WBEs that have submitted bids to the bidder.
- .4 Publishing notice in a local publication such as a newspaper, trade association publication or via electronic/social media.
- .5 Not rejecting MBEs/WBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.

- .6 Making economically feasible portions of the work available to MBE/WBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE subcontractors and suppliers, so as to facilitate meeting the goals or subgoals.
- .7 The ability or desire of the bidder to perform the project work with its own organization does not relieve the bidder of the responsibility to make Good Faith Efforts.
- .8 Offerors are not required to accept higher quotes in order to meet the goals or subgoals.
- .9 Effectively using the services of Minority Person/Women community organizations; Minority Person/Women Contractors groups; local, state and federal Minority Person/Women business assistance offices; and other organizations to provide assistance in solicitation and utilization of MBEs, WBEs and/or DBEs.
- .10 In assessing minimum Good Faith Efforts, the Owner may consider (1) whether the bidder sought guidance from the City of Austin Small and Minority Business Resources Department (SMBR) on any question regarding compliance with these requirements; and (2) the performance of other offerors in meeting the goals.

For additional information, refer to the MBE/WBE Compliance Program Requirements Volume of the Project Manual.

Bid shopping is not allowed in conjunction with this solicitation and may result in the disqualification of prospective Offerors and subcontractors.

2. MINIMUM WAGES

Workers on the Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.

3. ESTIMATE OF QUANTITIES (UNIT PRICE CONTRACTS ONLY)

Quantities, if any, listed in Proposal Form are to be considered as approximate and will be used only for comparison of Proposals. Payment to Contractor will be made only for actual quantities of Work performed or materials furnished in accordance with Contract and it is understood that quantities may be increased or decreased as provided in Section 00700, General Conditions, and as may be modified by Section 00810AE, Supplemental General Conditions.

4. DRAWINGS, PROJECT MANUAL AND SITE(S) OF WORK

Before submitting a Proposal, Offeror shall carefully examine the Proposal Documents, site(s) of the proposed Work, soils, and other conditions that may affect the performance of the Work to satisfy the Offeror as to character, quality and quantities of the Work to be performed and materials to be furnished. Submission of a Proposal shall indicate that Offeror has complied with these requirements. If during preparation of the Proposal, the Offeror discovers any

suspected discrepancies or errors, the Offeror must immediately notify the Authorized Contact Person in writing of the suspected discrepancy or error. Failure to provide written notice of any suspected discrepancies or errors may be cause for rejection of Proposal.

5. BID GUARANTY

All Proposals shall be accompanied by a Bid guaranty in an amount of not less than five percent (5%) of the total Proposal. Bid guaranty will be a Bid bond with Power of Attorney attached, issued by a solvent surety authorized under laws of the State of Texas and acceptable to OWNER. For Offerors electing to submit Responses and Bid Guaranties electronically via Austin Finance Online, Bid Guaranties will be verified by the Owner prior to award and electronic copies of Bid Guaranties will not be returned to Offerors. Bid Guaranties submitted in person (paper versions) will be retained until Contract is awarded with the successful contractor.

6. PERFORMANCE AND PAYMENT BONDS

When performance and/or payment bonds are required, each shall be issued in an amount equal to the Contract Amount as security for the faithful performance and/or payment of all Contactor's obligations under the Contract Documents. Performance and payment bonds shall be issued by a solvent corporate surety authorized to do business in the State of Texas, and shall meet any other requirements established by law or by Owner pursuant to applicable law.

7. OPENING OF PROPOSALS

Proposals will be opened in a manner that avoids disclosure of the contents to competing Offerors and keeps the contents confidential during negotiations. Until the negotiations are completed, only the number, identity and proposed price of the Offerors submitting Proposals will be made available to the public.

8. WITHDRAWAL OF PROPOSAL

Proposal may be withdrawn by Offeror, provided an authorized individual of the Offeror submits a written request to withdraw the Proposal prior to the time set for receipt of Proposals. Withdrawn Proposals may be resubmitted, with or without modifications, up to the due date and time.

9. REJECTION OF PROPOSALS

Owner reserves the right to reject any or all Proposals and to waive any minor informality in any Proposal or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Offerors).

9.1 The following **will** be cause to reject a Proposal:

- .1 Submission of Price Proposal, Section 00300CSP AE, which is not signed by an individual empowered to bind the Offeror.
- .2 Proposals which are not accompanied by acceptable Bid Guaranty, with Power of Attorney attached, or a letter certifying the Offeror's ability to be bonded, from a surety company, if required.
- .3 More than one Proposal for same Work from an individual, firm, partnership or corporation.
- .4 Evidence of collusion among Offerors.

- .5 Sworn testimony or discovery in pending litigation with Owner which discloses misconduct or willful refusal by Contractor to comply with subject contract or instructions of Owner.
- .6 Failure to submit MBE/WBE or DBE Compliance Plan in accordance with the separately bound volume titled MBE/WBE Procurement Program Package or DBE Procurement Program Package.
- .7 Failure to have an authorized agent of the Offeror to attend the mandatory Pre-Proposal Meeting, if applicable.
- .8 Proposals received from an Offeror who has been debarred or suspended by Owner's Purchasing Officer.
- .9 Proposals received from an Offeror when its principals are currently debarred or suspended by Federal, State or City governmental agencies. (Applicable for Proposal amounts equal to or in excess of \$25,000.00).
- .10 Proposal received from an Offeror, who is identified on a list maintained by the Texas Comptroller of Public Accounts as a company known to have contracts with or provide supplies or services to a foreign terrorist organization, unless otherwise exempted from sanctions by the United States government.

9.2 The following **may** be cause to reject a Proposal or influence evaluations and ranking of Proposal:

- .1 Poor performance in execution of work under a previous City of Austin contract.
- .2 Evidence of poor performance on previous Projects as documented in Owner's project performance evaluations.
- .3 Failure to achieve reasonable progress on an existing City of Austin contract.
- .4 Default on previous contracts or failure to execute Contract after award. .5 Evidence of failure to pay Subcontractors, Suppliers or employees in accordance with Contract requirements.
- .6 Proposals containing omissions, alterations of form, additions, qualifications or conditions not called for by Owner, or incomplete Proposals may be rejected. In any case of ambiguity or lack of clarity in the Proposal, Owner reserves right to determine most advantageous Proposal or to reject the Proposal.
- .7 Failure to acknowledge receipt of Addenda.
- .8 Failure to submit any of the items specified in the Evaluation Criteria, Section 00101CSP, or within this Request for Proposal.
- .9 Failure to identify a dollar amount (price) of a unit price(s) in the 300CSP AE.
- .10 Failure to submit post-proposal information within the allotted time(s), if applicable.
- .11 Failure to timely execute this Contract after award.
- .12 Previous environmental violations resulting in fines or citations by a governmental entity (i.e. U.S. Environmental Protection Agency, Texas Commission on Environmental Quality, etc.).
- .13 Unacceptable safety record and/or safety program as set forth in Evaluation Criteria.
- .14 Failure of Offeror to demonstrate its experience with projects of similar size, scope, and complexity.
- .15 Evidence of Offeror's lack of sufficient resources, workforce, equipment or supervision.
- .16 Unbalanced Unit Price Bid: "Unbalanced Bid" means a Bid, which includes a Bid that is based on unit prices which are significantly less than cost for some Bid items and significantly more than cost for others. This may be evidenced by submission of unit price Bid items where the cost are significantly higher/lower than the cost of the same Bid items submitted by other Bidders on the project.

- .17 Failure to submit Section 00810A Exhibit A Federal Provisions pages 1-9 with Proposal, if applicable.
- .18 Failure to submit Insurance Cost Form, Section 00425A, with Proposal, if applicable.

10. SUBMISSION OF POST PROPOSAL INFORMATION

Offeror shall submit information as requested by Owner prior to or during contract negotiations.

11. RELEASE OF INFORMATION

Under Texas law, information relating to this Solicitation may be kept confidential until a contract has been awarded. Owner shall not release information relative to this Solicitation during the proposal evaluation process or prior to contract award, except as otherwise required by law.

12. AWARD AND EXECUTION OF CONTRACT

Owner will process Proposals expeditiously. The Owner will evaluate and rank each proposal with respect to the evaluation factors contained in this Solicitation. Award of Contract will be to the Offeror providing the best value to the Owner. The Owner reserves the right to negotiate all elements which comprise the Proposal to ensure that the best possible consideration is afforded to all concerned. The Owner and/or its Engineer or Architect may discuss with the selected Offeror options for a scope or time modification and any price change associated with the modifications.

If the Owner is unable to negotiate a satisfactory contract with the top-ranked Offeror, Owner shall end negotiations with that Offeror in writing and may proceed to the next Offeror in the order of selection ranking until a Contract is reached or all Proposals are rejected.

Proposals are to be valid for Owner's acceptance for a minimum of **120 calendar days** from the Proposal due date to allow time for evaluation, selection, and any unforeseen delays. Any damages accruing to Owner as a result of the successful Offeror's failure to contract may be recovered from the successful Offeror.

Upon contract award, the selected Offeror must submit either their existing or an updated personnel policy (on letterhead) documenting conformity with City Code, Chapter 5-4, § 5-4-2. If the company does not submit a copy of their personnel policy incorporating the non-discrimination policy, the City of Austin Nondiscrimination Policy (Section 00630) will be considered the Offeror's nondiscrimination policy.

The City Manager or his/her designee will sign the Contract after award and submission of required documentation by Offeror. The Contract will not be binding upon Owner until it has been executed by both parties. Owner will process the Contract expeditiously. However, Owner will not be liable for any delays prior to the award or execution of Contract.

13. PROTEST PROCEDURES

The Owner's Capital Contracting Office (CCO) Officer has the authority to settle or resolve any claim of an alleged deficiency or protest. The procedures for notifying Owner of an alleged deficiency or filing a protest are listed below. If you fail to comply with any of these requirements, the CCO Officer may dismiss your complaint or protest.

Prior to Solicitation opening: If you are a prospective Offeror and you become aware of the facts regarding what you believe is a deficiency in the solicitation process before the Response is opened, you must notify Owner in writing of the alleged deficiency before that date, giving Owner an opportunity to resolve the situation prior to the Solicitation Proposal opening.

After Solicitation opening: If you submit a Response to Owner and (1) you have been found non-responsive, or (2) you believe that there has been a deficiency in the solicitation process or the award, you have the opportunity to protest the solicitation process or the recommended award as follows:

13.1 You must file written notice of your intent to protest within four (4) calendar days of the date that you know or should have known of the facts relating to the protest. If you do not file a written notice of intent within this time, you have waived all rights to protest the solicitation process or the award.

13.2 You must file your written protest within fourteen (14) calendar days of the date that you know or should have known of the facts relating to the protest unless you know of the facts before the Proposal has been opened. If you know of the facts before that date, you must notify Owner as stated above.

13.3 You must submit your protest in writing and must include the following information:

- your name, address, telephone, and email address;
- the solicitation number and the CIP number, if applicable;
- a detailed statement of the factual grounds for the protest, including copies of any relevant documents.

13.4 Your protest must be concise and presented logically and factually to help with Owner's review.

13.5 When Owner receives a timely written protest, the CCO Officer will determine whether the grounds for your protest are sufficient. If the CCO Officer decides that the grounds are sufficient, CCO will schedule a protest hearing, usually within five (5) working days. If the CCO Officer determines that your grounds are insufficient, you will be notified of that decision in writing.

13.6 The protest hearing is informal and is not subject to the Open Meetings Act. The purpose of the hearing is to give you a chance to present your case, it is not an adversarial proceeding. Those who may attend from Owner are: representatives from the department that requested the purchase, the Law Department, CCO, and other appropriate City staff. You may bring a representative or anyone else that will present information to support the factual grounds for your protest with you to the hearing.

13.7 A decision will usually be made within fifteen (15) calendar days after the hearing.

13.8 The CCO Officer will send you a copy of the hearing decision after the appropriate City staff has reviewed the decision.

13.9 When a protest is filed, Owner usually will not make an award until a decision on the protest is made. However, Owner will not delay an award if the City Manager or the CCO Officer determines that:

- Owner urgently requires the supplies or services to be purchased, or

- failure to make an award promptly will unduly delay delivery or performance.
- In those instances, CCO will notify you and make every effort to resolve your protest before the award.

The protest or notice of intent and the protest shall be submitted in writing to the following address:

City of Austin
Capital Contracting Office
ATTN: Capital Contracting Officer
One Texas Center
505 Barton Springs Rd.
Suite 330
Austin, Texas 78704
PHONE: 512/974-7141

14. SIGNATURE REQUIREMENTS

The Proposal, any subsequent supporting documents and Contract must be executed in the Offeror's full name and legal entity status by an authorized representative of the Offeror and accompanied by sufficient documentation, which clearly indicates not only the legal name and entity status, but also the capacity and authority of the person signing on behalf of Offeror. Accordingly, a partnership/joint venture must file its partnership/joint venture agreement, a corporation must file its articles and bylaws, a limited liability company must file its certificate of organization and article of organization and regulations, and a limited partnership must file not only limited partnership agreement and the certificate of limited partnership, but also the documentation for its general partner, and any Offeror must file a copy of any assumed name certificate, or such limited portion of such documents reasonably establishing signature authority.

15. TEXAS ETHICS COMMISSION INTERESTED PARTIES DISCLOSURE FORM

15.1 Definitions:

"Interested Party" – means a person who has a controlling interest in a Business Entity with whom the Owner contacts or who actively participates in facilitating the Contract or negotiating the terms of the Contract, including a broker, intermediary, adviser, or attorney for the Business Entity.

"Business Entity" – means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership, or corporation.

15.2 As a condition to entering the Contract, the Business Entity constituting the successful Bidder must provide a Texas Ethics Commission Certificate of Interested Parties Form to the Owner at the time the Business Entity/Bidder submits the signed Contract to the Owner in full compliance with the following requirements under which the successful Bidder shall:

(i) go to the Ethics Commission's website (www.ethics.state.tx.us) and

(ii) complete the "Interested Parties" information, in accordance with the requirements of the Texas Ethics Commission Rules published at Title 1, Part 2, Chapter 46, of the Texas Administrative Code and available on the referenced website;

(iii) include the City's contract identification number;

(iv) include a short description of the goods or services to be used by the City;
and

(v) indicate whether each interested party has a controlling interest in the business entity, is an intermediary in the contract for which the disclosure is being filed, or both.

15.3 In accordance with the Commission Rules, the Certificate of Filing and completed Certificate of Interested Parties must be: 1) printed, 2) signed by an authorized agent of the business entity, and 3) submitted to the City at the time of the submission of the signed contract to the City. The City then must notify the Ethics Commission in electronic format of receipt of the document within 30 days of contracting and the Commission will make the disclosure of interested parties available to the public on its website.

16. ROCIP REQUIREMENTS

If the insurance on this Project will be under the Rolling Owner Controlled Insurance Program (ROCIP), the Offeror is directed to Section 00810AE, Supplemental General Conditions and Contract Forms, and the Project Safety Manual included with these contract documents for information and bidding requirements. The Insurance Cost Form, Section 00425A, must be accurately completed and submitted with the Proposal to indicate insurance removed from Base Proposal and Alternates. Contractor shall remove from the Proposal the cost of insurance for the Contractor and Subcontractors of all tiers working on site.

With Proposal: The **Offeror/Contractor** must accurately complete and submit with the Proposal the Contractor Affidavit of Receipt and Provision of ROCIP Information form, Section 00425B.

Prior to Contract Execution: Additionally, Section 00425B, **Subcontractor** Affidavit of Receipt and Provision of ROCIP Information form for subcontractor(s) of all tiers identified in the MBE/WBE Compliance Plan must be accurately completed and submitted as **a post bid submittal** and further Subcontractor Affidavits must be submitted throughout the duration of the Contract as Subcontractor(s) are added.

17. PARTNERING

In order to complete the Work in a manner that is most beneficial to the Owner and Contractor, Owner and Contractor may form a "Partnering Team", which will include the E/A, and any major Subcontractors. This partnering relationship will draw on the strength of all parties to identify and achieve mutual goals. The objectives of this partnering relationship are effective and efficient communication and Contract performance, which is intended to ensure that the Project is completed within budget, on schedule, and in accordance with the Drawings and Specifications and other Contract requirements. While the partnering relationship will be multilateral in makeup and participation will be totally voluntary, the Owner and Contractor agree to cooperate and use reasonable good faith efforts to discuss and resolve any and all Project issues and disputes. Section 01100, Special Project Procedures and/or Section 01200, Project Meetings contain additional information regarding the intent of the partnering relationship and responsibilities of the entities entering into the partnering charter.

END

EVALUATION CRITERIA

Section 00101CSP

Overview: The City will select the Offeror that offers the “best value” to the City based on the evaluation of the following criteria.

Criteria Item #	Title	Max Points
1	MBE/WBE Goals Procurement Program	Y/N
2	Offeror’s Financial Capability	Y/N
3	Safety Record	Y/N
4	Acceptable Documentation	Y/N
		Max Points
5	Price	35
6	Prime Contractor’s Comparable Experience	25
7	Past Performance on City of Austin Projects	10
8	Key Personnel Comparable Experience	15
9	Major Scopes of Work – Comparable Project Experience	10
10	Organizational Structure and Business Practices	25
11	Local Business Presence	10
	SUBTOTAL	130
12	Service-Disabled Veteran Business Enterprise (SDVBE)	3.90
13	Optional Interview	15

For responses to Items 1 through 12, Offeror must either submit one (1) original and one (1) digital/electronic version on Flash Drive in a sealed container or submit responses electronically via Austin Finance Online. The Offeror is cautioned to refer to all other sections of the Solicitation Documents, Clarifications and/or Addenda for further details.

Item 1: MBE/WBE Goals Procurement Program Yes or No

Submit one (1) original, and one (1) digital/electronic version on Flash Drive in a sealed container.

Offeror must comply with City’s MBE/WBE participation requirements. If the Offeror has neither met the goals nor made GFE to meet the goals, it will be found to be nonresponsive and will not be considered for award of the contract.

For complete program guidelines, refer to the MBE/WBE Procurement Program manual included with this Solicitation.

Offeror must submit:

- MBE/WBE Compliance Plan
- GFE Documentation (if goals are not achieved)

Item 2: Offeror's Financial Capability **Yes or No**

The Offeror must provide evidence of financial capability and stability. Offeror's financial capability must be appropriate to the size and scope of this Project.

Offeror must submit:

Letter from Offeror's Surety stating Offeror's ability to acquire bonding in the full amount of the project and the maximum limits to be applied, if applicable or an acceptable Bid Guaranty, with Power of Attorney attached.

Item 3: Safety Record **Yes or No**

Offeror must submit safety experience information. The following factors may be considered, but are not limited to: Experience Modifier Rate, Lost Time Incident Rate, Total Recordable Case Rate, Safety Program, and OSHA Citations.

If based on the entirety of the Offeror's safety record, industry standards, and the risks associated with the current Project, the Offeror is found to have an unacceptable safety record the Offeror's response may be considered non-responsive and may not be considered for award.

Offeror must submit:

- Section 00410CSP – Statement of Offeror's Safety Experience

Item 4: Acceptable Documentation **Yes or No**

Submit the following documents, which are in addition to documents required in the other Evaluation Items.

- Section 00400CSP, Attachment A, Offeror's Information
 Section 00400CSP, Attachment B, Authentication of Submittal
 Section 00405, Certificate of Non-Suspension or Debarment
 Section 00631, Title VI Assurances Appendix A
 Section 00632, Title VI Assurances Appendix E
 Section 00810AE Attachment 1, Network Connection Agreement

Item 5: Price **35 points max**

Offeror must submit:

- Section 00300CSP AE, Proposal form
 Total Proposal Form, if submitting via eResponse

The lowest price receives thirty-five (35) points, with others receiving a percentage of points based on a percentage comparison with the lowest Base Proposal Price. For illustrative purposes, if the lowest price is \$200,000, that price is weighted "1" ($\$200,000/\$200,000 = 1$) and receives 35 points ($1 \times 35 = 35$).

A price of \$300,000 for the same proposal would be weighted “.67” ($\$200,000/\$300,000 = 0.67$) and receive 23.45 points ($0.67 \times 35 = 23.45$).

Likewise, a price of \$400,000 would be weighted at “.50” ($\$200,000/\$400,000 = 0.50$) and receive 17.50 points ($0.50 \times 35 = 17.50$).

Item 6: Prime Contractor’s Comparable Experience 25 points max

List and describe prime contractor’s construction experience for three (3) successfully completed projects within the past five (5) years of comparable size, scope and complexity to the Work described in the Solicitation, Section 01010 Summary of Work, and Contract Documents as requested below.

TECHNICAL CONSTRUCTION EXPERIENCE REQUIRED

Electrical Transmission Civil projects
Streetlight Civil projects
Electrical Substation Civil projects
Electrical Distribution Civil projects
Electrical Network Civil projects

Offeror must submit:

- Section 00400CSP, Attachment C, Experience of Offeror (one page maximum per project)

Item 7: Past Performance on City of Austin Projects 10 points max

Offerors who have had Contractor Performance Evaluations completed for previous projects with the City of Austin, and have had **no issues**, will receive an average of their five-year scores. Offerors who have had **no previous projects** with the City of Austin will receive an average of all the contractor’s performance evaluation five-year scores.

Item 8: Key Personnel Comparable Experience 15 points max

List and describe a minimum of three (3) successfully completed projects within the past five (5) years of comparable size, scope and complexity to the Work described in the Solicitation and Contract Documents for each Key Personnel of the Prime Contractor.

Key personnel to be evaluated are:

General Supervisor (7 points); Superintendent (6 points); Safety Manager (2 points)

Offeror must submit:

- Section 00400CSP, Attachment D – One (1) page per project per individual.
- Resumes of Key Personnel – One (1) page per individual.

- Letters of commitment that the named individuals will be those working on the project and the expected percentage of the project onsite. – One (1) page per individual.

Item 9: Major Scopes of Work - Comparable Project Experience 10 points max

Each scope of work can be accomplished through subcontracting opportunities or utilizing the prime contractor. List and describe three (3) successfully completed projects within the past seven (7) years of comparable scope to the Work described in the Solicitation and Contract Documents for each Major Scope of Work.

Major Scopes of Work:

New Installation of Civil Utility/Underground Projects (5 points)
Maintenance and Repair of Utility/Underground Civil Projects (5 points)

Offeror must submit:

- Section 00400CSP, Attachment D-1 – One (1) page per project, per major scope of work. All major subcontractors referenced in this item must also be included in the MBE/WBE compliance plan.

Item 10: Organizational Structure and Business Practices 25 points max

Offeror must submit:

- Organizational Chart (1 point)** - Provide a detailed explanation and organizational chart which **specifies project leadership** and reporting responsibilities of key personnel within your team including communications with the Project Architect/Engineer and the Owner's project manager. (Organizational Chart may be provided on legal or ledger-size paper.) One (1) page limit for organizational chart and one (1) page limit for explanation.
- Staffing Plan (8 points)** - Provide a summary on how you will meet the business staffing needs for Work Assignment requirements in Section 01010, Summary of Work. Include hiring and retention programs. Three (3) page limit.
- Response Strategies (6 points)** – Provide your experience to meet the response times in Section 01010, Summary of Work. Include your business continuity plan and emergency response processes and resources. Provide examples of your continuing operations plan in case of emergency and potential strategies that can be used in the proposal to minimize delays, maximize value of project, avoid unknowns, include additional M/WBE firms, and areas for possible time savings. Four (4) page limit, excluding firm's business continuity plan.
- Safety Training Program (3 points)** – Provide a safety training program for new and existing employees that correlates to the Work outlined in Section 01010, Summary of Work.
- Work Experience with Austin-Area Issues (5 points)** – Describe your team's experience with requirements of the City of Austin code requirements, transportation management include R.O.W closure and coordination/permits. One (1) page limit.

- Outreach Practices (2 points)** – Describe your company’s business practices and internal policies on providing opportunities for MBE/WBEs, DBEs, HUBs, and other historically underutilized businesses. One (1) page limit.

Item 11: Local Business Presence 10 points max

- Local Business Presence** - The City seeks opportunities for businesses with a Local Business Presence in the Austin Corporate City Limits to participate on City contracts thereby providing a minimal environmental footprint through reduced transportation time and costs associated with Project delivery. A firm (Offeror or Subcontractor) is considered to have a Local Business Presence if the firm is headquartered in the Austin Corporate City Limits or has a branch office located in the Austin Corporate City Limits in operation for the last five (5) years. The City defines headquarters as the administrative center where most of the important functions and full responsibility for managing and coordinating the business activities of the firm are located. The City defines branch office as a smaller, remotely located office that is separate from a firm’s headquarters that offers the services requested and required under this solicitation. Points will be awarded through a combination of the Offeror’s Local Business Presence and/or the Local Business Presence of their subcontractors. **Evaluation of the Team’s Percentage of Local Business Presence will be based on the allocation of work as reflected in the Offeror’s MBE/WBE Compliance Plan.** (10 points maximum)

Team’s Local Business Presence	Points Awarded
Local business presence of 90% to 100%	10
Local business presence of 75% to 89%	8
Local business presence of 50% to 74%	6
Local business presence of 25% to 49%	4
Local presence of between 1 and 24%	2
No local presence	0

Offeror must submit:

- Section 00461, Local Business Presence Identification Form

Item 12: Service-Disabled Veteran Business Enterprise (SDVBE) 3.90 points max

This Contract is subject to the provisions of the City’s Interim Service-Disabled Veteran-Owned Business Enterprise (SDVBE) Program as established by City Council Resolution No. 20160303-016. If a respondent is a SDVBE, and wants to participate in the Program, the City requires a certification with their Offer certifying that they are State Historically Underutilized Business (HUB) Service-Disabled Veteran-Owned Business.

The City seeks opportunities for SDVBE certified firms to participate on City contracts. A firm (Prime Contractor) is considered an SDVBE if the firm is certified by the State of Texas, Historically Underutilized Business (HUB) Program with the State Comptroller’s Office. Firms that meet this qualification

shall receive a 3% preference of the total possible evaluation points toward their formal proposal, excluding interview points. (See Section 00101CSP, Solicitation Requirements, Contract Forms and Conditions of the Contract Evaluation Criteria – Overview for “Total Possible Points”) The SDVBE preference only applies to Prime Contractors responding to Request for Proposals (RFP), not any subcontractors utilized.

A firm is considered a SDVBE, by submitting the completed Section 00480, Service-Disabled Veteran Business Enterprise (SDVBE) Acknowledgement form and a copy of the U.S. Department of Veteran Affairs letter stating Service-Disabled Veteran status. During the evaluation of a respondent’s proposal, additional points of three percent (3%) will be awarded based on the proposal’s Evaluation Criteria.

NOTE: The maximum SDVBE additional points of 3% of the total evaluated points will only pertain to the solicitation Evaluation Criteria used to determine the “best-value” or most-qualified respondent, as associated only to the initial review, evaluation and ranking of proposals. The SDVBE 3% will not be added to any additional scores or evaluations resulting from Interviews or other subsequent evaluation processes.

Offeror must submit:

- Section 00480, Service-Disabled Veteran-Owned Business Enterprise (SDVBE) Program Acknowledgement form
- Copy of Certification from U. S. Department of Veteran Affairs, stating Service-Disabled Veteran status

Item 13: Optional Interview

15 points max

The City may determine that it is necessary. Staff intends to use the following guidelines for the optional interview process:

- ◆ The point difference between top ranked firms are less than three points.
- ◆ Only firms considered qualified to perform the work, on the basis of their written proposal, will be invited for interviews. Interviews will be based on the published evaluation criteria from the solicitation.
- ◆ Staff will consider significant gaps in point separation between the top ranked firms.
- ◆ Staff may conduct interviews in other cases where staff believes it is in the best interest of the City.

END

City Manager
Austin, Texas

In response to this Request for Proposal, the undersigned offers the proposal for the following Project for the City of Austin, Texas:

Solicitation No.:	CLMB338
Project:	Underground Electrical Civil Construction

Having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated:

Note: The Proposer will enter the line-item subtotal in the "Extended Price" column below, which is the product of the estimated "Quantity" multiplied by the "Unit Price". Any mathematical errors will be corrected for the purpose of determining the correct Amount to be entered in the Proposal Form. The Amounts, including any corrected Amounts, will then be totaled to determine the actual amount of the Proposal.

Note: Quantity estimates listed below for each Proposal Item are based on an estimated annual quantity of the contract only.

UNIT PRICES: The undersigned Proposal Offeror agrees that, in case of an authorized adjustment to the scope of Work shown, the following unit price(s) will be used in adjusting the Contract Amount:

CATEGORY 1 - SCHEDULE OF MAN-HOUR BILLING RATES BLS Employment Cost Index					
Furnish labor necessary to perform electric utility construction and maintenance work as assigned at a man-hour rate. The following schedule of hourly billing rates for man-hours includes all job classifications and the net hourly rate for each, which will be billed to Austin Energy including all expenses and profit.					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
1.0	Driver, Truck, Single Axle, Light	Hour	10,000		
1.00T	Driver, Truck, Single Axle, Light - Overtime	Hour	100		
1.1	Driver, Truck, Tandem Axle, Semi-Trailer	Hour	10,650		
1.10T	Driver, Truck, Tandem Axle, Semi-Trailer – Overtime	Hour	500		
1.2	Labor, Common	Hour	80,000		
1.20T	Labor, Common – Overtime	Hour	11,000		
1.3	Operator, Backhoe (less than 1 1/2 cubic yard)	Hour	28,000		
1.30T	Operator, Backhoe (less than 1 1/2 cubic yard) – Overtime	Hour	3,000		
1.4	Field Supervisor, Utility Construction	Hour	32,000		
1.40T	Field Supervisor, Utility Construction - Overtime	Hour	3,500		

Solicitation Requirements, Contract Forms and Conditions of the Contract

1.5	Working Foreman, Utility Construction	Hour	32,000		
1.5OT	Working Foreman, Utility Construction – Overtime	Hour	4,500		
			Category 1 Subtotal =		

CATEGORY 2 - SCHEDULE OF EQUIPMENT BILLING RATES					
BLS Producer Price Index					
The following schedule of hourly billing rates for equipment includes a description of equipment available to Austin Energy maintained by the Contractor and the rate for which each piece of equipment will be billed to Austin Energy including all expenses and profit. Does not include Operator.					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
2.1	Air Compressor, 170CFM	Hour	8,000		
2.2	Air Diaphragm Pump 3" pump 100hrs	Hour	100		
2.3	Backhoe/Loader Rubber-Tire, Case 580 or Equal	Hour	10,800		
2.4	Rubber tire Trencher	Hour	300		
2.5	Rubber tire rock saw	Hour	300		
2.6	Dozer, equal to Vemeer JD650	Hour	700		
2.7	Hoe Ram, Hydraulic	Hour	2,500		
2.8	Loader, Front End (1 1/2 cubic yard)	Hour	550		
2.9	Loader, Skid Steer, 95XT case or equal	Hour	2,300		
2.1	Machine, Directional Boring up to and including 12" Diameter	Hour	200		
2.11	Plates, Steel Traffic 3/4" x 4' x 10'	Day	8,000		
2.12	Rock Saw, (Equal to Vermeer T655)	Hour	300		
2.13	Roller, Asphalt	Hour	800		
2.14	Saw, Concrete Paving	Hour	500		
2.15	Tamp Machine, Gasoline Jumping Jack	Hour	235		
2.16	Torch, Acetylene Cutting w/ All Accessories	Hour	175		
2.17	Trailer, Cable Maximum 12,000 lbs. rated	Hour	255		
2.18	Haul truck w/ tandem axle lowboy trailer	Hour	100		
2.19	Trailer, Backhoe	Hour	3,980		
2.20	Trenching Machine, Rock/Dirt equal to Vemeer 755	Hour	200		
2.21	Truck, Dump, 24 Cubic Yards	Hour	500		
2.22	Truck, Dump, 12 Cubic Yards	Hour	1,500		
2.23	Truck, Dump, 5 Cubic Yards	Hour	1,000		
2.24	Truck, Pickup, 1/2 ton up to 3/4 Ton (4x4) Field Supervisor	Hour	40,000		
2.25	Truck, Utility Bed, 3/4 ton up to 1 1/2 Ton (4x4)	Hour	15,000		
2.26	Truck, Winch, 5 Ton	Hour	200		
2.27	Truck mounted Pressure Digger Max. digging depth 15' w/ max dia. 42" auger	Hour	200		
2.28	Pier drill machine w/ rubber tire or track rig up to 80' depth	Hour	200		
2.29	Truck, Drill LDDH or equal , Truck Mounted Pressure Digger (minimum digging depth 120')	Hour	200		

Solicitation Requirements, Contract Forms and Conditions of the Contract

2.30	Low Profile Pier drill machine w/ rubber tire or track up to 34'	Hour	200		
2.31	Tractor 35 hp, with attachments (6 ft. shredder, drag box, tandem disc, front-end loader)	Hour	100		
2.32	Portable Miller Arc Welder – 225 amps AC and 200 amps DC, including standard consumables	Hour	200		
2.33	Track Excavator, equal to 320 Cat with Rock Bucket (AE Approval Required)	Hour	200		
2.34	Compact Mini Excavator Equal to 324 Bobcat (AE Approval Required)	Hour	400		
2.35	75 HP Motor Grader	Hour	1,000		
2.36	Smooth Drum Roller, 60-inch width	Hour	500		
2.37	2,000 Gallon Water Truck with Vegetation Watering Attachments	Hour	500		
2.38	Sheep Foot Roller with Front Blade, 66-inch width	Hour	700		
2.39	Minimum 46 HP, 500-Gal Tank Vacuum, Truck Mounted for cleaning Manholes	Hour	500		
2.40	Minimum 46 HP, 500-Gal Tank Vacuum, Trailer Mounted for cleaning Manholes	Hour	200		
			Category 2 Subtotal =		

**CATEGORY 3 – INSTALL STREETLIGHT POLES
BLS Employment Cost Index**

ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
3.0	Streetlight Pole, Steel or Aluminum for 25'-30' Pole, w/ Single Arm on Metal Base Foundation	Each	325		
3.1	Streetlight Pole, Steel or Aluminum for 25'-30' Pole, w/ Double Arm on Metal Base Foundation	Each	40		
3.2	Streetlight Pole, Steel or Aluminum for 35'-45' Pole, w/ Single Arm on Metal Base Foundation	Each	340		
3.3	Streetlight Pole, Steel or Aluminum for 35'-45' Pole, w/ Double Arm on Metal Base Foundation	Each	30		
3.4	Per Unit Deduct, when Three or More Poles are Delivered to Installation Site.	Each	5		
			Category 3 Subtotal =		

**CATEGORY 4 - INSTALL SHOEBOX TYPE STREETLIGHT POLES
BLS Employment Cost Index**

ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
4.0	Single Arm Shoebox Streetlight Pole, 25' - 30' complete in place	Each	30		

Solicitation Requirements, Contract Forms and Conditions of the Contract

4.1	Additional Arm Attachment	Each	25		
4.2	Per Unit Deduct, when Three or More Poles are Delivered to Installation Site.	Each	5		
			Category 4 Subtotal =		

CATEGORY 5 - INSTALL DECORATIVE STREETLIGHT POLES					
BLS Employment Cost Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
5.0	Single Arm Decorative Streetlight Pole, complete in place	Each	30		
5.1	Additional Arm Attachment	Each	25		
5.2	Per Unit Deduct, when Three or More Poles are Delivered to Installation Site.	Each	5		
			Category 5 Subtotal =		

CATEGORY 6 - SURFACE RESTORATION (SPECIALTY LABOR AND EQUIPMENT ONLY)					
BLS Producer Price Index and BLS Employment Cost Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
6.0	Asphalt 2" depth (under 300' per location)	Lump Sum	300		
6.1	Asphalt 2" depth (over 300' per location)	SF	600		
6.2	Asphalt additional 1" depth	SF	300		
			Category 6 Subtotal =		

CATEGORY 7 - EROSION CONTROLS (LABOR AND EQUIPMENT)					
BLS Producer Price Index and BLS Employment Cost Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
7.0	Sediment Containment Dike (Triangle), Item 628S	LF	300		
7.1	Silt Fence, 0 to 50 ft., Item 642S	Each	175		
7.2	Silt Fence, 50 ft. and Over, Item 642S	LF	5,200		
7.3	Stabilized Construction Entrance (Up to 50'), Item 641S	Each	16		
7.4	Rock Berm, Item 639S	LF	80		
7.5	Sodding for Erosion Control, Item 602S	SF	3,200		
7.6	Seeding for Erosion Control, 3,200 square foot or Less, Item 604S	Each	95		
7.7	Seeding for Erosion Control Areas Greater Than 3,200 square foot, Item 604S	SF	45,000		
			Category 7 Subtotal =		

CATEGORY 8 - URD - CONDUIT, CABLE & TRANSFORMER					
BLS Employment Cost Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
8.0	Install URD Primary Cable	LF	400,000		
8.1	Install URD Secondary Cable	LF	180,000		
8.2	Install triplex, quadruplex, multi grouped cables	LF	125,000		
8.3	Set Pad Mount Transformers	Each	100		
Category 8 Subtotal =					

CATEGORY 9 - SURFACE RESTORATION					
BLS Employment Cost Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
9.0	Install R-O-W Gate	Each	60		
Category 9 Subtotal =					

CATEGORY 10 - MATERIALS, EQUIPMENT AND SERVICES					
No Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT MARKUP PERCENT	EXTENDED PRICE
10.0	\$50,000 worth of extra Material Purchases, orders up to \$1,000.00 each	% Mark Up	50,000		
10.1	\$200,000 worth of extra Material Purchases, orders from \$1,001.00 to \$5,000 each.	% Mark Up	200,000		
10.2	\$150,000 worth of extra Material Purchases, orders from \$5,001 to \$10,000 each.	% Mark Up	150,000		
10.3	\$150,000 worth of extra Material Purchases, orders of \$10,001 and above, each.	% Mark Up	150,000		
10.4	\$125,000 worth of Leased Specialty Equipment, orders up to \$2,500 each	% Mark Up	125,000		
10.5	\$175,000 worth of Leased Specialty Equipment, orders from \$2,501 to \$10,000 each	% Mark Up	175,000		
10.6	\$150,000 worth of Leased Specialty Equipment, of \$10,001 and above, each	% Mark Up	150,000		
10.7	\$100,000 worth of Specialty Services, orders up to \$2,500 each.	% Mark Up	100,000		

Solicitation Requirements, Contract Forms and Conditions of the Contract

10.8	\$150,000 worth of Specialty Services, orders from \$2,501 to \$10,000 each.	% Mark Up	150,000		
10.9	\$300,000 worth of Specialty Services, orders of \$10,001 and above, each.	% Mark Up	300,000		
Category 10 Subtotal =					

CATEGORY 11 - CONCRETE, ROAD BASE, SURFACE ROCK FLEXIBLE BASE TOPSOIL AND 3X5 ROCK BLS Producer Price Index					
ITEM No.	DESCRIPTION	UNIT	ESTIMATED ANNUAL QUANTITY	UNIT PRICE	EXTENDED PRICE
11.0	Concrete for Structures, Item No.403S .3	CY	2,000		
11.1	Controlled Low Strength Material Item No. 402S.3	CY	1,000		
11.2	Structural Concrete Pavement, Item No. 360S	CY	1,000		
11.3	Flexible Base, Item No. 210S.3	TON	2,000		
11.4	Surface Rock	TON	4,000		
11.5	3x5 Rock, Item No. 641S.3	TON	1,000		
11.6	Topsoil, Item No. 601S.3	CY	1,500		
Category 11 Subtotal =					
BASE PROPOSAL (Categories 1-11 Total):					\$

Links to City Specifications & Standards and Attachments referenced in the Proposal From can be found in Section 01010 – Summary of Work

BASE PROPOSAL	\$
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- The "Base Proposal" amount must be used in the MBE/WBE Compliance Plan Summary Page to determine subcontractor participation levels for the established MBE/WBE procurement goals, if applicable.
- The "Base Proposal" amount becomes the bidder's "TOTAL PROPOSAL" if allowances and/or alternates are not included.

The Base Proposal amount will be evaluated per Section 00101CSP, Evaluation Criteria. Award of a Contract will be to the Offeror providing the best value to Owner. Owner reserves the right to negotiate all elements which comprise the Proposal to ensure that the best possible consideration is afforded to all concerned. The Owner may discuss with the selected Offeror options for a scope or time modification and any price change associated with the modifications.

Notes:

1. **Minimum Wages:** Workers on the Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum Wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.

The CONTRACTOR will base its Proposal amount on the CONTRACTOR'S unit prices and the estimated quantities of Work set forth in the Proposal Form, which will only be used for the purpose of comparison and evaluation of Proposals. The OWNER will subsequently issue Work Assignments based on the OWNER's needs and not in accordance with the estimated quantities contained in the Proposal documents up to the aggregated Contract Amount of \$72,000,000 subject to further appropriations. The unit prices Proposal by the successful Offeror shall remain firm throughout the first twelve (12) months of the CONTRACT.

Proposal prices may be adjusted for the Contract extension on the basis of an increase or decrease of the existing prices upwards or downwards in accordance with the indices stated in the Category Unit Prices.

In most cases an index from the Bureau of Labor Standards (BLS) will be utilized; however, if there is more appropriate, industry recognized standard then that index may be selected. If the requested adjustment is not supported by the referenced index, the City, at its sole discretion, may consider approving an adjustment on fully documented market increases.

The adjusted prices will be included in a change order and will remain firm throughout the Contract extension period. Upon receipt of the notice of the exercise of the option for an additional contract term by the OWNER, the CONTRACTOR must request a Proposal price adjustment in writing or the then current Proposal prices will remain in force and effect.

Optional Information on Proposal Prices Submitted by Computer Printout

In lieu of handwritten unit prices in figures in ink on the Proposal forms above, Offerors, at their option, may submit an original computer printout sheet bearing certification by, and signature for, the Offering firm. The unit prices shown on acceptable printouts will be the unit prices used to tabulate the Proposal and used in the Contract if awarded by the City. As a minimum, computer printouts must contain all information and, in the format, shown on the attached page: "Example of Proposal Prices Submitted by Computer Printout" form.

If a computer printout is used, the Offeror must still execute that portion of the unit price Proposal form which acknowledges the Bid Guaranty, Time of Completion, Liquidated Damages, and all addenda that may have been issued.

Proposals with unit prices by computer printout may be rejected, if:

1. The computer printout does not include the required certification, set forth in the attached "Example".
2. The computer printout is not signed in the name of the firm to whom the Project Manual was issued.
3. The computer printout is non-responsive or otherwise omits required Proposal items or includes items not shown on the Proposal forms.
4. The other required Proposal documents issued by the City are not fully executed as provided above.
5. The signed Section 00300CSP AE is not returned with the signed computer printout.

If the Proposal submitted by the Offeror contains both the form furnished by the City, completed according to the instructions, and also a computer printout, completed according to the instructions, unit prices of only one will be considered. In this situation, the unit Proposal prices shown on the computer printout will be used to determine the Proposal.

BID GUARANTY: A Bid guaranty must be enclosed with this Proposal in the amount of not less than five percent (5%) of the total proposed amount. Following the opening of Proposals, Proposals may not be withdrawn for a period of **120 Calendar Days**. Contract execution will occur within this period, unless mutually agreed between the parties. The bid guaranty may become the property of the Owner, or the Owner may pursue any other action allowed by law, if:

- Offeror withdraws its Proposal within the period stated above;
- Offeror fails to submit any required post proposal information within the period specified in Section 00020CSP or 00100CSP, or any mutually agreed extension of that period; or
- Offeror fails to execute the Contract and furnish the prescribed documentation (bonds, insurance, etc.) needed to complete execution of the Contract within five (5) Working Days from written request from Owner.

TIME OF COMPLETION: The Offeror understands and agrees that the timely completion of the described Work is of the essence. The undersigned Offeror agrees to commence work on the date specified in each written "Notice to Proceed" to be issued by the OWNER and to finally complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within the time indicated in each Work Assignment. The Offeror further agrees that should the Offeror fail to finally complete the Work within the number of days indicated in the Work Assignment or as subsequently adjusted, Offeror agrees to pay the costs incurred by the OWNER due to Offeror's delay upon thirty (30) days of receipt of an itemized invoice.

WAIVER OF ATTORNEY FEES: In submitting its Proposal, in consideration for the waiver of its right to attorney's fees by the Owner, the Offeror knowingly and intentionally agrees to and shall waive the right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.

MINOR INFORMALITY: Owner reserves the right to reject any or all Proposals and to waive any minor informality in any Proposal or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Offer).

ADDENDA: The undersigned acknowledges receipt of the following addenda:

Addendum No. 1 dated _____	Received _____
Addendum No. 2 dated _____	Received _____
Addendum No. 3 dated _____	Received _____
Addendum No. 4 dated _____	Received _____

PROPOSAL DOCUMENT EXECUTION AND ACKNOWLEDGEMENT: The undersigned Offeror certifies that the Offeror has read and understands Section 00020CSP Invitation for Proposals, Section 00100CSP Instructions to Offerors, and all other requirements applicable to the Proposal process provided in the Proposal and Contract Documents.

OFFEROR'S CERTIFICATION OF NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING (Section 00440): The undersigned Offeror, by its signature, represents and certifies that it has read and can affirmatively swear and subscribe to the statements in Section 00440 Non-Collusion, Non-Conflict of Interest, and Anti-Lobbying Certification. If the Offeror cannot affirmatively swear and subscribe to any of the statements in Section 00440, Offeror represents and certifies that it has provided a detailed written explanation with its Proposal on separate pages annexed hereto. The undersigned Offeror further certifies that it has not in any way directly or indirectly had communication restricted in the City Code Chapter 2-7, Article 6 (Anti-Lobbying and Procurement) during the No-Lobbying Period as defined in Chapter 2-7.

Offeror will initial the blank set forth below to represent and certify that the Offeror has completed, executed, and enclosed the corresponding Proposal Documents with the Proposal.

____ MBE/WBE Compliance Document

____ One copy of Total Proposal Form if Proposal is submitted electronically via Austin Finance Online

____ Bid Guaranty

The undersigned, by their signature, represents that they are submitting a binding offer and are authorized to bind the Offeror to fully comply with the solicitation documents contained herein. The Offeror, by submitting and signing below, certifies that they have received and read all sections of the entire solicitation document including all revisions, addenda and documents incorporated by reference, and agree to be bound by the terms therein.

Corporate Secretary, *if Offeror is a Corporation

Offeror

Email for Secretary

Authorized Signature/Print Name

(Seal)

Title

Date

Address

Telephone Number / FAX Number

Email for Person Signing Proposal

Email for Offeror's Primary Contact Person

EXAMPLE: BID PRICES SUBMITTED BY COMPUTER PRINTOUT

Project Name:
CIP ID #:
CLMB #:

Item #	Item Description	Unit	Qty	Unit Price	Total Amount
Total Proposal:					

(YOUR FIRM'S NAME) certifies that the unit prices shown on this completed computer printout for all of the Proposal items and the alternates contained in this proposal are the unit prices intended and that its Proposal will be tabulated using these unit prices and no other information from this printout. (YOUR FIRM'S NAME) acknowledges and agrees that the total Proposal amount shown will be read as its total Proposal. *In the event of a mathematical error*, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Offeror.

Signed: _____

Title: _____

Date: _____

END

STATEMENT OF EXPERIENCE
Section 00400CSP

Attachment A
(Criteria Item 4)
OFFEROR'S INFORMATION

Offeror must answer all questions completely and all information must be clear, accurate and comprehensive. If necessary, questions may be answered on separate attached sheets.

If Offeror is a Joint Venture, complete Attachment A for **each** joint venture firm(s).

A.	Name of Offeror:	
	Parent company if subsidiary:	
	Offeror's Permanent Address:	
	Branch office, if applicable:	
	Offeror's Phone No.:	

B.	Number of Years in Business:	
C.	Indicate whether Offeror is a partnership, corporation, joint venture, or individual:	
	State in which incorporation or license to operate:	
	If a Joint Venture, Percentage Control:	
D.	Federal Tax ID:	Vendor Code:

E.	Name of Contact Person:	
	Address:	
	Phone:	Email:

F.	If different from "Contact Person", provide name of individual in your organization authorized to negotiate contract terms and render binding decisions on contract matters:	
	Address:	
	Phone:	Email:

G.	Has the Offeror defaulted on a contract? YES (___) NO (___)
	If yes, please explain. Add additional sheets if necessary.

H.	Currently or in the last five (5) years has Offeror been a party to any claims, judgments or lawsuits as a part of any project to which it was involved? YES (___) NO (___)
	If yes, please explain. Add additional sheets if necessary.

I.	Is the Offeror or principals of Offeror now, or has the Offeror or principals of Offeror, ever been involved in any bankruptcy or reorganization proceedings? YES (___) NO (___)
	If yes, please explain. Add additional sheets if necessary.

J.	Describe the quantity and nature of any work, interest in work, partnership interest, land ownership or other interest in any project, property or business dealing within the proposed project area or part or current business relationship which may give rise to a potential conflict of interest for your firm or associated firms in the execution of this project:

K.	Texas Board of Professional Engineers (TBPE) Registration No.: (IF APPLICABLE)	
----	---	--

L.	Registered Architect (TBAE) Registration No.: (IF APPLICABLE)	
----	---	--

END

STATEMENT OF EXPERIENCE
Section 00400CSP

Attachment B
(Criteria Item 4)
AUTHENTICATION OF SUBMITTAL

ACKNOWLEDGEMENT

THE STATE OF TEXAS
COUNTY OF TRAVIS

I certify that my responses and the information provided are true and correct to the best of my personal knowledge and belief and that I have made no willful misrepresentations in this Section, nor have I withheld any relevant information in my statements and answers to questions. I am aware that any information given by me in this Section may be investigated and I hereby give my full permission for any such investigation and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my offer to be rejected.

OFFEROR'S FULL NAME AND ENTITY STATUS:

Signature, Authorized Representative of Offeror

Title

Date

END

STATEMENT OF EXPERIENCE
Section 00400CSP

Attachment C
(Criteria Item 6)
EXPERIENCE OF OFFEROR
DUPLICATE FORM AS NECESSARY - ONE PAGE PER PROJECT

PROJECT OWNER/CLIENT		POC	
PHONE		EMAIL	
ADDRESS			

PROJECT NAME/LOCATION:	
------------------------	--

DESCRIBE SCOPE OF WORK:	
-------------------------	--

EXPLAIN HOW THE PROJECT WAS OF COMPARABLE SIZE, SCOPE AND COMPLEXITY TO THE WORK DESCRIBED IN THE SOLICITATION AND CONTRACT DOCUMENTS:	
--	--

INITIAL CONTRACT AMOUNT:	\$	FINAL CONTRACT AMOUNT:	\$
--------------------------	----	------------------------	----

FINAL COMPLETION DATE:		ACTUAL COMPLETION DATE:	
------------------------	--	-------------------------	--

EXPLAIN YOUR EXPERIENCE WITH Electrical Transmission Civil Projects; Streetlight Civil projects; Electrical Substation Civil projects; Electrical Distribution Civil projects; and Electrical Network Civil projects.	
--	--

DESCRIBE MBE/WBE, HUB, AND SMALL BUSINESS REQUIREMENTS AND YOUR PARTICIPATION:	
--	--

STATEMENT OF EXPERIENCE
Section 00400CSP

Attachment D

(Criteria Item 8)

EXPERIENCE OF KEY PERSONNEL

(General Supervisor, Superintendent, Safety Manager)

DUPLICATE FORM AS NECESSARY - ONE PAGE PER PROJECT, PER INDIVIDUAL

NAME OF KEY PERSONNEL		TITLE	
COMPANY / EMPLOYER		PHONE	

PROJECT OWNER/CLIENT		POC	
PHONE		EMAIL	
ADDRESS			

PROJECT NAME/LOCATION:			
DESCRIBE SCOPE OF WORK:			
EXPLAIN HOW THE PROJECT WAS OF COMPARABLE SIZE, SCOPE AND COMPLEXITY TO THE WORK DESCRIBED IN THE SOLICITATION AND CONTRACT DOCUMENTS:			
INITIAL CONTRACT AMOUNT:	\$	FINAL CONTRACT AMOUNT:	\$
FINAL COMPLETION DATE:		ACTUAL COMPLETION DATE:	

STATEMENT OF EXPERIENCE

Section 00400CSP

Attachment D-1**(Criteria Item 9)****MAJOR SCOPES OF WORK – COMPARABLE PROJECT EXPERIENCE****New Installation of Utility/ Underground Civil Projects
Maintenance and Repair of Utility/Underground Civil Projects**

Scope of Work:	
Firm Name:	

The following information is required for each project. Provide no more than one page per major scope of work per firm.

The City has identified Major Scopes of Work to be provided for this project, which are included in the Solicitation Documents. Each scope of work can be accomplished through subcontracting opportunities or utilizing the prime firm. The City is interested in the history and success of the firm proposed to perform the scope of work (subcontractor or prime), with projects of similar size, scope and complexity in the areas identified.

Project Name/Location:	
Date Completed: Month/Year:	
Name of Client or Owner's Representative	
Construction Cost:	
Project Description:	
Describe Scope of Work Performed:	

CERTIFICATE OF NON-SUSPENSION OR DEBARMENT

Section 00405

Solicitation Number: _____ (to be filled in by Contractor)

The City of Austin is prohibited from contracting with or making prime or sub-awards to parties that are suspended or debarred or whose principals are suspended or debarred from Federal, State, or City of Austin Contracts. Covered transactions include procurement contracts for goods or services equal to or in excess of \$25,000.00 and all non-procurement transactions. This certification is required for all bidders on all City of Austin Contracts to be awarded with values equal to or in excess of \$25,000.00 and all non-procurement transactions.

The CONTRACTOR hereby certifies that its firm and its principals are not currently suspended or debarred from bidding on any Federal, State, or City of Austin Contracts.

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

STATEMENT OF OFFEROR'S SAFETY EXPERIENCE

Section 00410CSP

OFFEROR'S SAFETY EXPERIENCE

Solicitation Number: _____ (to be filled in by Contractor)

NAME OF OFFEROR:

Pursuant to Section 252.0435 of the Local Government Code, the OWNER will consider the safety records of Offeror prior to awarding a City contract. Upon request, a Offeror is required to provide information to demonstrate the safety and health performance of their company. The information obtained from an Offeror from other sources will be used to determine the Offeror's safety record, and will not automatically be used to exclude the Offeror from selection for this or any future procurement. The OWNER will consider the responses to this Section 00410CSP document separately when making a discretionary determination of whether to disqualify an Offeror, and may also consider the cumulative impact of the information generated by the Offeror's responses in making the determination. Offerors are responsible for reviewing the safety records of proposed subcontractors.

WORKERS' COMPENSATION EXPERIENCE MODIFICATION RATE DATA			
Provide Offeror's Workers' Compensation Experience Modification Rate (EMR) Data using the loss experience that occurred within the past five years. Attach Offeror's NCCI workers compensation experience rating sheets for the past five (5) years.		Policy Year	EMR
	Current EMR:		
	1 Year Ago:		
	2 Years Ago:		
	3 Years Ago:		
	4 Years Ago:		
Offeror's initialing here certifies that offeror does not have an EMR: _____ <i>(Submit a copy of Offeror's Insurance Loss Run Reports for the last five years if Offeror does not have an EMR.)</i>			
Offeror may include additional information explaining any circumstances that may have affected the company's EMR rate. 			
Evaluation: Offerors with a 5-year EMR average that exceeds the 5-year industry average EMR by more than 25% may be deemed non-responsive.			

REGULATORY NOTICE AND CITATION HISTORY DATA	
<p>Provide Offeror's information regarding regulatory OSHA and/or Environmental Protection Agency Notices and Citations as follows:</p> <p>Describe federal, state, city/municipal or county OSHA notices of noncompliance or citations issued to or received by the offeror within the past three years or any notices from any environmental protection agency, including any notices or citations from any state agency or local government responsible for enforcing environmental protection or other health and safety laws or regulations of any state of the United States, received within the past three years.</p>	<p>Provide a description of each on the OSHA/EPA form on the following page to include:</p> <ul style="list-style-type: none">• Date of Citation/Notices• Issuing agency• Standard cited• Level of violation (i.e. serious, willful)• Dates and brief description(s) of the event(s)• Brief description(s) of actions taken to correct the violation(s)• Current status (Open, Closed, Contested)• If Closed, date of Closure• If Open, estimated date of Closure
<p>Offeror may include additional information explaining any related circumstances.</p>	
<p>Evaluation: Information may be verified by referring to respective agency. More than two serious or more than one willful or repeated violation (investigation completed) within the past three years may deem the Offeror non-responsive.</p>	

Bidding Requirements, Contract Forms and Conditions of the Contract

OSHA and/or Environmental Protection Agency Notices Within Past Three Years						
Date of Citation or Notice	Issuing Agency	Violation Level (i.e. serious, willful)	Brief description of event	Brief description of actions taken to correct violation(s)	Current Status (Open, Closed, Contested)	Closed Date, or if Open, estimated Close Date

INJURY AND ILLNESS INCIDENCE RATE DATA	
Provide Offeror's *Total Case Incidence Rate(s) (TCIR) for the 3 most recent calendar years. Attach offeror's OSHA 300 and 300A logs for the past 3 years.	TCIR Rates: Current Rate: _____ 1 Year Ago: _____ 2 Years Ago: _____
DAYS AWAY, RESTRICTED, AND TRANSFER RATE DATA	
Provide Offeror's **Days Away, Restricted, and Transfer Rate(s) (DART) for the three most recent calendar years.	DART Rates: Current Rate: _____ 1 Year Ago: _____ 2 Years Ago: _____
Offeror may include additional information explaining any circumstances that may have affected the submitted rates and/or their associated three year trends.	
Evaluation: Rates will be compared to the most recently published Bureau of Labor Statistics (BLS) national average for the Standard Industrial Classification code (SIC) or North American Industrial Classification Systems (NAICS) code for the construction industry. For consideration of another code within the construction industry, the Offeror must provide the code and justification. Offerors with a 3-year TCIR or DART average that exceeds the 3-year TCIR or DART industry average may be deemed non-responsive.	

**TCIR – To calculate the calendar year TCIR, determine the total number of all recordable injuries and illnesses that occurred during the year in question, divide that total by the total number of hours worked by all employees during that year, and multiply the result by 200,000.*

*** DART – To calculate the calendar year DART, determine the total number of recordable injuries and illnesses resulting in days away from work, restricted work activity, and/or job transfer that occurred during the year in question, divide that total by the total number of hours worked by all employees during that year, and multiply the result by 200,000.*

ACKNOWLEDGEMENT

THE STATE OF TEXAS

COUNTY OF TRAVIS

I certify that my responses and the information I have provided are true and correct to the best of my personal knowledge and belief and I have made no willful misrepresentations in this, or withheld any relevant information in my statements. I am aware that any information given by me in response to this Section 00410CSP may be investigated and I hereby give my full permission for any such investigations, and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my bid to be rejected or cause any contract based on misrepresentations to be cancelled.

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

**NON-COLLUSION, NON-CONFLICT OF INTEREST
AND ANTI-LOBBYING**

State of Texas

County of Travis

The term "**Bidder**", as used herein, includes the individual or business entity submitting the bid includes the directors, officers, partners, managers, members, principals, owners, agents, representatives, employees, other parties in interest of the Bidder, and anyone or any entity acting for or on behalf of the Bidder, including a subcontractor in connection with this bid.

The terms "**City**" and "**Owner**" are synonymous.

1. **Anti-Collusion Statement.** The Bidder has not and will not in any way directly or indirectly:
 - a. colluded, conspired, or agreed with any other person, firm, corporation, bidder or potential bidder to the amount of this bid or the terms or conditions of this bid.
 - b. paid or agreed to pay any other person, firm, corporation bidder or potential bidder any money or anything of value in return for assistance in procuring or attempting to procure a contract or in return for establishing the prices in the attached bid or the bid of any other bidder.
2. **Preparation of Invitation for Bid and Contract Documents.** The Bidder has not received any compensation or a promise of compensation for participating in the preparation or development of the underlying bid or contract documents., In addition, the Bidder has not otherwise participated in the preparation or development of the underlying bid or contract documents, except to the extent of any comments or questions and responses in the bidding process, which are available to all bidders, so as to have an unfair advantage over other bidders, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.
3. **Participation in Decision Making Process.** The Bidder has not participated in the evaluation of bids or proposals or other decision making process for this solicitation, and, if Bidder is awarded a contract hereunder, no individual, agent, representative, consultant or sub contractor or consultant associated with Bidder, who may have been involved in the evaluation or other decision making process for this solicitation, will have any direct or indirect financial interest in the Contract, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.
4. **Present Knowledge.** Bidder is not presently aware of any potential or actual conflicts of interest regarding this solicitation, which either enabled Bidder to obtain an advantage over other bidders or would prevent Bidder from advancing the best interests of OWNER in the course of the performance of the Contract.

Bidding Requirements, Contract Forms and Conditions of the Contract

5. **City Code.** As provided in Sections 2-7-61 through 2-7-65 of the City Code, no individual with a substantial interest in Bidder is a City official or employee or is related to any City official or employee within the first or second degree of consanguinity or affinity.
6. **Chapter 176 Conflict of Interest Disclosure.** In accordance with Chapter 176 of the Texas Local Government Code, the Bidder:
 - a. does not have an employment or other business relationship with any local government officer of OWNER or a family member of that officer that results in the officer or family member receiving taxable income;
 - b. has not given a local government officer of OWNER one or more gifts, other than gifts of food lodging transportation or entertainment accepted as a guest, that have an aggregate value of more than \$100 in the twelve-month period preceding the date the officer becomes aware of the execution of the Contract or that OWNER is considering doing business with the Bidder; and
 - c. does not have a family relationship with a local government officer of OWNER in the third degree of consanguinity or the second degree of affinity.

As required by Chapter 176, Bidder must file the Conflicts of Interest Questionnaire with the Purchasing Department no later than the seventh business day after the commencement of contract discussions or negotiations with the City or the submission of a Bid, response to a request for proposals, or other writing related to a potential contract with OWNER. The questionnaire must be updated not later than the seventh day after the date of an event that would make a statement in the questionnaire inaccurate or incomplete. There are statutory penalties for failure to comply with Chapter 176.

7. **Anti-Lobbying Ordinance.** On June 14, 2018, the Austin City Council adopted Ordinance No. 20180614-056 replacing Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly had communication restricted in the ordinance section 2-7-104 during the No-Lobbying Period as defined in the Ordinance. The text of the City Ordinance is included in Section 00100 of this solicitation and is also posted on the Internet at:

https://assets.austintexas.gov/purchase/downloads/New_ALO_Ordinance_No_20180614-056.pdf

8. **Texas Government Code Chapter 2270.** The City is prohibited from contracting with any "company", for goods and services unless the following verification is included in this contract.

If CONTRACTOR qualifies as a "company", then CONTRACTOR verifies that it: (a) does not "boycott Israel"; and (b) will not "boycott Israel" during the term of this contract. For the purposes of this Section only, the terms "company" and "boycott Israel" have the meaning assigned by Texas Government Code Section 2270.001. CONTRACTOR's obligations under this Section, if any exist, will automatically cease or be reduced to the extent that the requirements of Texas Government Code Chapter 2270 are subsequently repealed, reduced, or declared unenforceable or invalid in whole or in part by any court or tribunal of competent jurisdiction or by the Texas Attorney General, without any further impact on the validity or continuity of this contract.

Bidding Requirements, Contract Forms and Conditions of the Contract

NOTE: THE ABOVE STATE LAW HAS RECENTLY BEEN TEMPORARILY ENJOINED. HOWEVER, IF THIS INJUNCTION IS LIFTED OR STAYED BY A COURT OR OTHER ENTITY OF COMPETENT JURISDICTION, THIS SECTION WILL BE AN ENFORCEABLE AND REQUIRED TERM OF YOUR CONTRACT WITH THE CITY. IF YOU DISAGREE WITH THE ABOVE PROVISION OF THE CONTRACT, PLEASE STRIKE THROUGH IT OR INDICATE YOUR OBJECTION ON THIS PAGE. YOUR BID WILL NOT BE AFFECTED BY STRIKING THROUGH THIS PROVISION AT THIS TIME. STRIKING THROUGH THE PROVISION OR STATING YOUR OBJECTION TO IT WILL NOT CAUSE THE CITY TO REJECT YOUR BID.

If the Bidder cannot affirmatively swear and subscribe to the forgoing statements, the Bidder shall provide a detailed written explanation on separate pages to be included with Bid.

END

LOCAL BUSINESS PRESENCE IDENTIFICATION FORM
Section 00461

(Criteria Item 11)

OFFEROR MUST SUBMIT THE FOLLOWING INFORMATION FOR EACH SUBCONTRACTOR (INCLUDING THE OFFEROR).

NOTE: ALL CONTRACTOR'S IDENTIFIED BELOW MUST BE USED ON THIS PROJECT AND MUST BE IDENTIFIED ON THE MBE/WBE COMPLIANCE PLAN.

OFFEROR:

COMPANY NAME:					
Street Address, Zip:					
Is your Company in the Austin Corporate City Limits (ACCL)?		Which applies to your ACCL office?		Has your business been at this location for the past 5 years?	
Yes	No	Headquarters	Branch Office	Yes	No

USE ADDITIONAL PAGES AS NECESSARY

SUBCONTRACTOR(S):

COMPANY NAME:					
Street Address, Zip:					
Is your Company in the Austin Corporate City Limits (ACCL)?		Which applies to your ACCL office?		Has your business been at this location for the past 5 years?	
Yes	No	Headquarters	Branch Office	Yes	No

COMPANY NAME:					
Street Address, Zip:					
Is your Company in the Austin Corporate City Limits (ACCL)?		Which applies to your ACCL office?		Has your business been at this location for the past 5 years?	
Yes	No	Headquarters	Branch Office	Yes	No

COMPANY NAME:					
Street Address, Zip:					
Is your Company in the Austin Corporate City Limits (ACCL)?		Which applies to your ACCL office?		Has your business been at this location for the past 5 years?	
Yes	No	Headquarters	Branch Office	Yes	No

ACKNOWLEDGEMENT

THE STATE OF TEXAS
COUNTY OF TRAVIS

I certify that my responses and the information provided on **Form 00461** are true and correct to the best of my personal knowledge and belief and that I have made no willful misrepresentations in this Section, nor have I withheld any relevant information in my statements and answers to questions. I am aware that any information given by me in this Section may be investigated and I hereby give my full permission for any such investigation and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my offer to be rejected.

OFFEROR'S FULL NAME AND ENTITY STATUS:

Signature, Authorized Representative of Offeror

Title

Date

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public

My Commission Expires _____

END

SERVICE-DISABLED VETERAN BUSINESS ENTERPRISE (SDVBE)
Section 00480

(Section 00101 - Evaluation Criteria Item 12)

**AUTHENTICATION
OF
SERVICE-DISABLED VETERAN BUSINESS ENTERPRISE (SDVBE)**

ACKNOWLEDGEMENT

Pursuant to the Service-Disabled Veteran Owned-Business Enterprise (SDVBE) Program (reference Section 00020 CSP – Request for Proposals), all proposers responding to this solicitation must complete and return this form for proper consideration of the proposal. Firms that are certified by the State of Texas, Historically Underutilized Business HUB Program with the State Comptroller’s Office as a Service-Disabled Veteran Owned Business Enterprise (SDVBE) shall receive a 3% preference towards their formal proposal.

Vendor understands that in no instance shall the SDVBE program, price or scoring preference be combined with any other City preference program to exceed 3% in response to any City solicitation.

See City Council ([Resolution No. 20160303-016](#)) for more information on the resolution.

Company Name _____

- I **AM** a Service-Disabled Veteran Owned Business Enterprise properly certified by the State of Texas, Historically Underutilized Business HUB Program with the State Comptroller’s Office.

Date Certified _____

State of Texas Vendor ID _____

Certification Expiration _____

AND

- I **HAVE** attached my letter from the U.S. Department of Veterans Affairs stating that I am a Service-Disabled Veteran to my proposal.

DECLARATION: I HEREBY DECLARE THAT THE ABOVE INFORMATION IS TRUE AND ACCURATE AND ACKNOWLEDGE THAT FRAUDULENT STATEMENTS MADE ON THIS CERTIFICATION MAY RESULT IN CONTRACT TERMINATION, POSSIBLE SUSPENSION OR DEBARMENT, OR RESULT IN LEGAL ACTION.

OFFEROR'S FULL NAME AND ENTITY STATUS:

Signature, Authorized Representative of Offeror

Title

Date

END

Bidding Requirements, Contract Forms and Conditions of the Contract
AGREEMENT
Section 00500CSP AE

STATE OF TEXAS
COUNTY OF TRAVIS

THIS AGREEMENT is made and entered into by and between the City of Austin, Texas, a municipal corporation, organized and existing under laws of State of Texas, acting through its City Manager or other duly authorized designee, hereinafter referred to as the "OWNER," and _____, of the City of _____, County of _____, and State of _____, hereinafter referred to as the "CONTRACTOR."

In consideration of the promises, performances, payments and agreements set forth herein CONTRACTOR hereby agree to commence and complete the following Project:

\$	
(Figures)	(Words)

The Contract will be for an Initial Term of twenty-four (24) months, with the option of four (4) possible twelve (12) month terms. Extension of the Contract will be at the mutual agreement of both the OWNER and the CONTRACTOR. Upon expiration of the Initial Term or any period of extension, the Contractor agrees to "holdover" and continue to perform the Work of Work Assignments under the terms and conditions of this Agreement for such a period as is reasonably necessary for the Owner to resolicit and contract with another contractor and/or complete the Work of any Work Assignment and as required under this Agreement. Any "holdover" period will not exceed 180 calendar days unless mutually agreed on by both parties in writing. The OWNER shall notify the CONTRACTOR within sixty (60) days of the end of a Contract term if the OWNER will not offer an extension, unless both parties agree to different time period. CONTRACTOR shall accept or reject the OWNER's offer to extend the Contract for an additional twelve (12) month term within seven (7) calendar days, unless the parties agree to a different time period. Work Assignments may be issued at any time during the term of the Contract. Work Assignments not completed by the expiration date of the Contract are subject to the terms and conditions of the Contract which will continue in full force and effect.

The Contract Amount will not exceed twenty-four million (\$24,000,000) dollars for the Initial Contract Term and twelve million (\$12,000,000) dollars for each Option for each extension option for a total potential Contract Amount not to exceed seventy-two million (\$72,000,000) dollars, which may be increased subject to the availability of funding and further approval of the Austin City Council. This Contract has a potential Contract period of six (6) years as approved by Council or until funds are exhausted. It is anticipated that the above amount will be divided among each of the selected Contractors. This Agreement does not in any way guarantee payment by Owner to Contractor of any of the above amount. In the event available funding during a term has been expended, the City may initiate the early execution of an available extension option. Funding may be increased subject to the availability of funds and further approval of the Austin City Council.

The CONTRACTOR will base its proposal amount on the CONTRACTOR's unit prices and the estimated quantities of Work set forth in the Proposal Form, which will only be used for the purpose of the comparison and evaluation of Proposals. The OWNER will subsequently issue Work Assignments based on the OWNER's needs and not in accordance with the estimated quantities contained in the Proposal documents up to the aggregated Contract Amount of **\$24,000,000**, subject to further appropriations.

Bidding Requirements, Contract Forms and Conditions of the Contract
AGREEMENT
Section 00500CSP AE

If all options are exercised, Contract will not exceed **\$72,000,000** subject to the availability of funding and further approval of the Austin City Council.

In consideration of the award and execution of this Contract, and in consideration of the waiver of its right to attorney's fees by the OWNER, the CONTRACTOR knowingly and intentionally waives its right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to this Contract.

OWNER agrees to pay CONTRACTOR from available funds for performance of the Contract in accordance with the Proposal and the provisions of the Contract Documents, subject to additions and deductions, as provided therein.

The OWNER's payment obligations are payable only and solely from funds available for the purposes of this Agreement.

Although drafted by OWNER, this Agreement, in event of any disputes over its meaning or application, shall be interpreted fairly and reasonably, and neither more strongly for nor against either party.

This Agreement is executed to be effective upon the date of the last party to sign.

The undersigned, by their signature, represents that they are authorized to bind the Contractor to fully comply with the Contract. The Contractor, by signing below, acknowledge that they have read the entire contract and agree to be bound by the terms contained herein.

OWNER

By: _____
City of Austin (Signature)

Date

Title of Signatory

§ CONTRACTOR

§ By: _____
§ (Signature)

§ _____
§ Date

§ _____
§ Printed Name of Signatory

§ _____
§ Title of Signatory, Authorized Representative

§ **ATTEST (as applicable)**

§ _____
§ **Secretary of Corporate Bidder or Corporate General Partner ***

END

PERFORMANCE BOND
Section 00610

STATE OF TEXAS
COUNTY OF _____

Bond No. _____
C.I.P. ID No. _____

Project Name _____

Know All Men By These Presents: That _____ of the City of _____,
County of _____, and State of _____, as Principal, and
_____, a solvent company authorized under laws of the State of Texas
to act as surety on bonds for principals, are held and firmly bound unto _____
(OWNER), in the penal sum of _____ U.S. Dollars (\$ _____ U.S.) for payment
whereof, well and truly to be made, said Principal and Surety bind themselves and their
heirs, administrators, executors, successors and assigns, jointly and severally, by these
presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written
contract with OWNER, dated the _____ day of _____, _____, which Agreement is
hereby referred to and made a part hereof as fully and to the same extent as if copied at
length herein.

Now, therefore, the condition of this obligation is such, that if said Principal shall faithfully
perform said Agreement and shall in all respects duly and faithfully observe and perform all
and singular covenants, conditions and agreements in and by said contract agreed and
covenanted by Principal to be observed and performed, and according to true intent and
meaning of said Agreement hereto annexed, then this obligation shall be void; otherwise to
remain in full force and effect. If OWNER notifies Principal and Surety the OWNER is
considering declaring Principal in default, Surety agrees to meet with OWNER and Principal
no later than fifteen days after receipt of such notice to discuss methods of performing the
Work of the Contract.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253,
Texas Government Code as amended and all liabilities on this bond shall be determined in
accordance with provisions of said Article to same extent as if it were copied at length
herein.

Surety, for value received, stipulates and agrees that no change in Contract Time or
Contract Amount shall in anywise affect its obligation on this bond, and it does hereby waive
notice of any such change in Contract Time or Contract Amount.

In witness whereof, said Principal and Surety have signed and sealed this instrument this
_____ day of _____, _____.

Principal

Surety

By _____
(Signature)

By _____
(Signature)

Title _____

Title _____

Address _____

Address _____

Telephone _____ Fax _____
E-Mail Address _____

Name and address of Resident Agent of Surety:

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

END

SAMPLE

Bidding Requirements, Contract Forms and Conditions of the Contract

PAYMENT BOND

Section 00620

STATE OF TEXAS
COUNTY OF _____

Bond No. _____
C.I.P. ID No. _____

Project Name: _____

Know All Men By These Presents: That _____ of the City of _____, County of _____, and State of _____ as Principal, and _____, a solvent company authorized under laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (OWNER), and all Subcontractors, workers, laborers, mechanics and suppliers as their interests may appear, all of whom shall have right to sue upon this bond in the penal sum of _____ U.S. Dollars (\$_____ U.S.) for payment whereof, well and truly to be made, said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written contract with OWNER, dated the _____ day of _____, _____, which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

Now, therefore, condition of this obligation is such, that if the said Principal shall well and truly pay all Subcontractors, workers, laborers, mechanics, and suppliers, all monies to them owing by said Principals for subcontracts, work, labor, equipment, supplies and materials done and furnished for the construction of improvement of said Agreement, then this obligation shall be and become null and void; otherwise to remain in full force and effect.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253, Texas Government Code as amended and all liabilities on this bond shall be determined in accordance with provisions of said Article to same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change in Contract Time or Contract Amount shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change in Contract Time or Contract Amount.

In witness whereof, said Principal and Surety have signed and sealed this instrument this _____ day of _____, _____.

Principal

Surety

By _____
(Signature)

By _____
(Signature)

Title _____

Title _____

Bidding Requirements, Contract Forms and Conditions of the Contract

Address _____ Address _____

Telephone _____ Fax _____

E-Mail Address _____

Name and address of Resident Agent of Surety:

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas and shall meet any other requirements established by law or by OWNER pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

END

NON-DISCRIMINATION AND NON-RETALIATION CERTIFICATE

Section 00630

**City of Austin, Texas
Equal Employment/Fair Housing Office**

To: City of Austin, Texas, ("OWNER")

Our firm conforms to the Code of the City of Austin Section 5-4-2 as reiterated below:

Chapter 5-4. Discrimination in Employment by City Contractors.

Sec. 4-2 Discriminatory Employment Practices Prohibited. (B) As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations and agrees:

- (1) Not to engage in any discriminatory employment practice defined in this chapter.
- (2) To take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without discrimination being practiced against them as defined in this chapter. Such affirmative action shall include, but not be limited to: all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising; selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.
- (3) To post in conspicuous places, available to employees and applicants for employment, notices to be provided by OWNER setting forth the provisions of this chapter.
- (4) To state in all solicitations or advertisements for employees placed by or on behalf of Contractor, that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sexual orientation, gender identity, disability, veteran status, sex or age.
- (5) To obtain a written statement from any labor union or labor organization furnishing labor or service to Contractors in which said union or organization has agreed not to engage in any discriminatory employment practices as defined in this chapter and to take affirmative action to implement policies and provisions of this chapter.
- (6) To cooperate fully with OWNER's Equal Employment/Fair Housing Office in connection with any investigation or conciliation effort of said Equal Employment/Fair Housing Office to ensure that the purpose of the provisions against discriminatory employment practices are being carried out.
- (7) To require compliance with provisions of this chapter by all subcontractors having fifteen or more employees who hold any subcontract providing for expenditure of \$2,000.00 or more in connection with any contract with OWNER subject to the terms of this chapter.

Bidding Requirements, Contract Forms and Conditions of the Contract

For the purposes of this Bid and any resulting Contract, Contractor adopts the provisions of the City's Minimum Standard Nondiscrimination and Non-Retaliation Policy as set forth below.

City of Austin

Minimum Standard Non-Discrimination and Non-Retaliation in Employment Policy

As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations.

The Contractor will not discriminate against any applicant or employee based on race, creed, color, national origin, sex, age, religion, veteran status, gender identity, disability, or sexual orientation. This policy covers all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising, selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.

The Contractor agrees to prohibit retaliation, discharge or otherwise discrimination against any employee or applicant for employment who has inquired about, discussed or disclosed their compensation.

Further, employees who experience discrimination, sexual harassment, or another form of harassment should immediately report it to their supervisor. If this is not a suitable avenue for addressing their complaint, employees are advised to contact another member of management or their human resources representative. No employee shall be discriminated against, harassed, intimidated, nor suffer any reprisal as a result of reporting a violation of this policy. Furthermore, any employee, supervisor, or manager who becomes aware of any such discrimination or harassment should immediately report it to executive management or the human resources office to ensure that such conduct does not continue.

Contractor agrees that to the extent of any inconsistency, omission, or conflict with its current non-discrimination and non-retaliation employment policy, the Contractor has expressly adopted the provisions of the City's Minimum Non-Discrimination Policy contained in Section 5-4-2 of the City Code as set forth above and the City's Non-Retaliation Policy, as the Contractor's Non-Discrimination and Non-Retaliation Policy or as an amendment to such Policy and such provisions are intended to not only supplement the Contractor's policy, but will also supersede the Contractor's policy to the extent of any conflict.

*UPON CONTRACT AWARD, THE CONTRACTOR SHALL PROVIDE A COPY TO THE CITY OF THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY ON COMPANY LETTERHEAD, WHICH CONFORMS IN FORM, SCOPE, AND CONTENT TO THE CITY'S MINIMUM NON-DISCRIMINATION AND NON-RETALIATION POLICY, AS SET FORTH HEREIN, **OR** THIS NON-DISCRIMINATION AND NON-RETALIATION POLICY, WHICH HAS BEEN ADOPTED BY THE CONTRACTOR FOR ALL PURPOSES (THE FORM OF WHICH HAS BEEN APPROVED BY THE CITY'S EQUAL EMPLOYMENT/FAIR HOUSING OFFICE), WILL BE CONSIDERED THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY WITHOUT THE REQUIREMENT OF A SEPARATE SUBMITTAL.*

(<http://austintexas.gov/page/bid-docs>).

Sanctions:

Our firm understands that non-compliance with Chapter 5-4 may result in sanctions, including termination of the contract and suspension or debarment from participation in future City contracts until deemed compliant with the requirements of Chapter 5-4.

Bidding Requirements, Contract Forms and Conditions of the Contract

Term:

The Contractor agrees that this Section 00630 Non-Discrimination and Non-Retaliation Certificate or the Contractor's separate conforming policy, which the Contractor has executed and filed with the Owner, will remain in force and effect for one year from the date of filing. The Contractor further agrees that, in consideration of the receipt of continued Contract payments, the Contractor's Non-Discrimination Policy will automatically renew from year-to-year for the term of the underlying Contract.

END

Solicitation Number: _____ (to be filled in by Contractor)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate either directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 C.F.R. part 21.
3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the contract for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.
4. Information and Reports: The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its book, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor will so certify to the Recipient, or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the Nondiscrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the contractor under the contract until the contractor complies, and or
 - (b) cancelling, terminating or suspending a contract, in whole or in part.
6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, that if a

Bidding Requirements, Contract Forms and Conditions of the Contract

contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(Source: DOT 1050.2A, Updated DOT Standard Title VI Assurances and Non-Discrimination Provisions 10/22/2013. Must be inserted into every contract/agreement regardless of funding sources.)

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

TITLE VI ASSURANCES APPENDIX E

Section 00632

Solicitation Number: _____ (to be filled in by Contractor)

During the performance of this contract, the contractor (hereinafter includes consultants), for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 C.F.R. Part 21.
2. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
3. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 C.F.R. Part 27;
5. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
6. Airport and Airway Improvement Act of 1982, (49 U.S.C. § 4 71, Section 4 7123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, subrecipients and contractors, whether such programs or activities are Federally funded or not);
8. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
9. The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

Bidding Requirements, Contract Forms and Conditions of the Contract

11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP).
12. To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
13. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

(Source: DOT 1050.2A, Updated DOT Standard Title VI Assurances and Non-Discrimination Provisions 10/22/2013. Must be inserted into every contract/agreement regardless of funding sources.)

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

Bidding Requirements, Contract Forms and Conditions of the Contract
CERTIFICATE OF INSURANCE
 Section 00650

This Certificate shall be completed by a licensed insurance agent:

Name and Address of Agency:

 Phone: _____ / _____

City of Austin Reference:
 Project Name:
 C.I.P. No.:
 Project Location:

Name and Address of Insured:

 Phone: _____ / _____

Managing Dept.:
 Contract No.:
 Project Mgr.:

Insurers Affording Coverages:

Insurer A: _____
 Insurer B: _____
 Insurer C: _____
 Insurer D: _____

Prime or Sub-Contractor?: _____

Name of Prime Contractor, if different from Insured: _____

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFTE- CTIVE DATE (MM/DD/YYYY)	POLICY EXPIR- ATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	Commercial General Liability Policy As defined in the Policy, does the Policy provide:				Each Occurrence	\$
					General Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Completed Operations/Products				Completed Operations /Products Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Contractual Liability				Personal & Advertising Injury	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Explosion				Deductible or Self Insured Retention	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Collapse					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Underground					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Contractors/ Subcontractors Work					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Aggregate Limits per Project Form CG 2503					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured Form – CG 2010 and CG2037					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation Form – CG 0205					
<input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation Form – CG 2404						
	Pollution/ Environmental Impairment Policy				Occurrence	\$
					Aggregate	\$

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	Auto Liability Policy As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- Any Auto <input type="checkbox"/> Yes <input type="checkbox"/> No -- All Owned Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Non-Owned Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Hired Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation – CA0444 <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation – CA0244 <input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured – CA2048 <input type="checkbox"/> Yes <input type="checkbox"/> No -- MCS 90				CSL	\$
					Bodily Injury (Per Accident)	\$
					Bodily Injury (Per Person)	\$
					Property Damage (Per Accident)	\$
	Excess Liability <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Excess Liability Follow Form				Occurrence	\$
					Aggregate	\$
	Workers Compensation and Employers Liability As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation – WC420304 <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation – WC420601				<input type="checkbox"/> Statutory	
					Each Accident	\$
					Disease – Policy Limit	\$
					Disease – Each Employee	\$
	Is a Builders Risk or Installation Insurance Policy provided? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No -- Is the City shown as loss payee/mortgagee?					\$
	Professional Liability As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation Retroactive Date: _____				Each Claim	\$
					Deductible or Self Insured Retention	\$

This form is for informational purposes only and certifies that policies of insurance listed above have been issued to insured named above and are in force at this time. Notwithstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, insurance afforded by policies described herein is subject to all terms, exclusions and conditions of such policies.

CERTIFICATE HOLDER: _____ **DATE ISSUED:** _____

City of Austin
 Capital Contracting Office
 P.O. Box 1088
 Austin, Texas 78767

 AUTHORIZED REPRESENTATIVE SIGNATURE
 Licensed Insurance Agent

END

Bidding Requirements, Contract Forms and Conditions of the Contract
TEXAS SALES AND USE TAX EXEMPTION CERTIFICATE
Section 00670

City of Austin, Texas
P.O. Box 1088
Austin, Texas 78767

CONTRACTOR/PURCHASER:

Street Address:

City, State, ZIP Code:

Project: CLMB338 Underground Electrical Civil Construction

Project Manager: Chad Leingang

FDU No.:

CIP ID No.:

Description of items to be purchased or as described on the attached order or invoice:

The Contractor may purchase all labor, materials, supplies, and equipment to be incorporated in the City of Austin realty, including easements, or completely consumed at the Project jobsite and services required by or integral to the performance of the contract for the Project without paying sales or use tax in accordance with State Comptroller Rule 3.291.

Contractor/Purchaser claims this exemption for the following reason: This contract is to be performed for the City of Austin, a tax exempt entity under the Texas Tax Code.

I understand that I will be liable for payment of sales and use taxes which may become due for failure to comply with the provisions of the Tax Code. I also understand that it is a criminal offense to give an exemption certificate to the contractor for taxable items that I know, at the time of purchase, will be used in a manner other than that expressed in this certificate and depending on the amount of tax evaded, the offense may range from a Class B misdemeanor to a felony of the second degree.

City of Austin, Texas

Title



Ed Van Eenoo

Chief Financial Officer

CONTRACTOR/PURCHASER: _____

By: _____

Title: _____

Date: _____

NOTE: This certificate cannot be issued for the purchase, lease, or rental of a motor vehicle.

THIS CERTIFICATE DOES NOT REQUIRE A NUMBER TO BE VALID. Sales and Use Tax "Exemption Numbers" or "Tax Exempt" Numbers do not exist. This certificate should be furnished to the supplier. Do not send the completed certificate to the Comptroller of Public Accounts.

End

NON-USE OF ASBESTOS AFFIDAVIT (CONTRACTOR PRIOR TO CONSTRUCTION)

Section 00680

**STATE OF TEXAS
COUNTY OF TRAVIS**

BEFORE ME, the undersigned authority, personally appeared the Affiant who, being by me first duly sworn, upon oath deposed and stated:

"My name is _____, hereinafter known as Affiant. "I am over the age of 18 years and I have never been convicted of a crime. I am the _____ of _____ hereinafter known as CONTRACTOR.

"I am fully competent to make this affidavit. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS CONTRACTOR has submitted a bid to the City of Austin as the Prime CONTRACTOR and anticipates being awarded a contract for the construction of _____ located at _____, Austin, Texas, hereinafter known as Project, for the City of Austin, Texas, hereinafter known as OWNER, and "WHEREAS asbestos in a dust form is a recognized health hazard, and "WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project; "THEREFORE the CONTRACTOR affirms and understands the following:

1. The CONTRACTOR, any person, firm or organization representing or represented by the CONTRACTOR, or employed by the CONTRACTOR shall not cause or allow any material to be incorporated into the construction of the project, or allow any building material on the project site that is an asbestos containing material or any other material defined as containing asbestos by any laws, rules or regulations promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.

2. Realizing that there might be some materials in which a satisfactory non-asbestos containing material could not be obtained, the Consultant has received prior approval from the OWNER before specifying any such asbestos containing material. Those approved materials are the only asbestos containing materials that are exempt from the above prohibition.

3. The CONTRACTOR certifies and affirms their understanding that if any asbestos containing materials not approved by the City of Austin for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been incorporated into the construction of the Project, or brought onto the site of the Project, the OWNER shall look to the CONTRACTOR for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.

4. CONTRACTOR further understands that OWNER shall also look to the CONTRACTOR for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have not been approved by OWNER.

Bidding Requirements, Contract Forms and Conditions of the Contract

5. CONTRACTOR further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the CONTRACTOR by any and every means within OWNER's right and power.

Signature of Affiant: _____

**STATE OF TEXAS
COUNTY OF TRAVIS**

ON _____, 20____, personally appeared _____ and been duly sworn by me, subscribed to the foregoing affidavit and has stated that the facts stated therein are true and correct.

Notary Public, State of Texas

Printed Name of Notary

My Commission Expires: _____

END

NON-USE OF ASBESTOS AFFIDAVIT (CONTRACTOR AFTER CONSTRUCTION)

Section 00681

**STATE OF TEXAS
COUNTY OF TRAVIS**

BEFORE ME, the undersigned authority, personally appeared the Affiant who, being by me first duly sworn, upon oath deposed and stated:

"My name is _____, hereinafter known as Affiant. "I am over the age of 18 years and I have never been convicted of a crime. I am the _____ of _____ hereinafter known as CONTRACTOR.

"I am fully competent to make this affidavit. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS CONTRACTOR was awarded a Contract for, and was the Prime CONTRACTOR for the construction of _____ located at _____, Austin, Texas, hereinafter known as Project, for the City of Austin, Texas, hereinafter known as OWNER, and "WHEREAS asbestos in a dust form is a recognized health hazard, and "WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project; "THEREFORE the CONTRACTOR affirms and understands the following:

1. The CONTRACTOR, any person, firm or organization representing or represented by the CONTRACTOR, or employed by the CONTRACTOR has not caused or allowed any material to be incorporated into the construction of the project, or allowed any building material on the project site that is an asbestos containing material or any other material defined as containing asbestos by any laws, rules or regulation promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.

2. Realizing that there were some materials in which a satisfactory non-asbestos containing material could not be obtained, the Consultant received prior approval from the OWNER before specifying any such asbestos containing material. Those approved materials were the only asbestos containing materials incorporated into the construction of the Project and are listed below, with their locations:

3. The CONTRACTOR certifies and affirms their understanding that if any asbestos containing materials not approved by the City of Austin for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been incorporated into the construction of the Project, or brought onto the site of the Project, the OWNER shall look to the CONTRACTOR for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.

Bidding Requirements, Contract Forms and Conditions of the Contract

4. CONTRACTOR further understands that OWNER shall also look to the CONTRACTOR for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have not been approved by OWNER.

5. CONTRACTOR further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the CONTRACTOR by any and every means within OWNER's right and power.

Signature of Affiant: _____

**STATE OF TEXAS
COUNTY OF TRAVIS**

On _____, 20____, personally appeared _____ and been duly sworn by me, subscribed to the foregoing affidavit and has stated that the facts stated therein are true and correct.

Notary Public, State of Texas

Printed Name of Notary

My Commission Expires: _____

END

Bidding Requirements, Contract Forms and Conditions of the Contract
GENERAL CONDITIONS OF THE CONTRACT
Section 00700

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ARTICLE 1 – DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

- 1.1 Addendum** - Written instruments issued by the Contract Awarding Authority which clarify, correct or change the bidding requirements or the Contract Documents prior to the Due Date. "Addenda" is the plural form of Addendum.
- 1.2 Agreement** - Prescribed form, Section 00500.
- 1.3 Alternative Dispute Resolution** - The process by which a disputed Claim may be settled if the OWNER and the CONTRACTOR cannot reach an agreement between themselves, as an alternative to litigation.
- 1.4 Bid** - A complete, properly signed response to an Invitation for Bid that, if accepted, would bind the Bidder to perform the resultant Contract.
- 1.5 Bidder** - A person, firm, or entity that submits a Bid in response to a Solicitation. Any Bidder may be represented by an agent after submitting evidence demonstrating the agent's authority. The agent cannot certify as to his own agency status.
- 1.6 Bid Documents** - The advertisement or Invitation for Bids, instructions to Bidders, the Bid form, the Contract Documents and Addenda.
- 1.7 Calendar Day** - Any day of the week; no days being excepted. Work on Saturdays, Sundays, and/or Legal Holidays shall be coordinated with OWNER.
- 1.8 Change Directive** - A written directive to CONTRACTOR, signed by OWNER, ordering a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Amount or Contract Time, or both. A Change Directive may be used in the absence of total agreement on the terms of a Change Order. A Change Directive does not change the Contract Amount or Contract Time, but is evidence that the parties expect that the change directed or documented by a Change Directive will be incorporated in a subsequently issued Change Order.
- 1.9 Change Orders** - Written agreements entered into between CONTRACTOR and OWNER authorizing an addition, deletion, or revision to the Contract, issued on or after the Execution Date of the Agreement.
- 1.10 Claim** - A written demand seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract.
- 1.11 Contract** - The binding legal agreement between the OWNER and the CONTRACTOR. The Contract represents the entire and integrated agreement between OWNER and CONTRACTOR for performance of the Work, as evidenced by the Contract Documents.
- 1.12 Contract Amount** - The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents.
- 1.13 Contract Awarding Authority** - A City department authorized to enter into Contracts on behalf of the City.
- 1.14 Contract Documents** - Project Manual, Drawings, Addenda and Change Orders.
- 1.15 Contract Time** - The number of days allowed for completion of the Work as defined by the Contract. When any period is referred to in days, it will be computed to exclude the first and include the last day of such period. A day of twenty-four hours measured from midnight to the next midnight will constitute a day.

- 1.16 CONTRACTOR** - The individual, firm, corporation, or other business entity with whom OWNER has entered into the Contract for performance of the Work.
- 1.17 Critical Path** - The longest series of tasks that runs consecutively from the beginning to the end of the project, as determined by duration and workflow sequence. This longest path sets the managerial standard for how quickly a project can be completed, given appropriate resources.
- 1.18 Drawings** - Those portions of the Contract Documents which are graphic representations of the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been approved by OWNER. Drawings may include plans, elevations, sections, details, schedules and diagrams. Shop Drawings are not Drawings as so defined.
- 1.19 Due Date** - The date and time specified for receipt of Bids.
- 1.20 Engineer/Architect (E/A)** - The OWNER's design professional identified as such in the Contract. The titles of "Architect/Engineer," "Architect" and "Engineer" used in the Contract Documents shall read the same as Engineer/Architect (E/A). Nothing contained in the Contract Documents shall create any contractual or agency relationship between E/A and CONTRACTOR.
- 1.21 Equal** - The terms "equal" or "approved equal" shall have the same meaning.
- 1.22 Execution Date** - Date of last signature of the parties to the Agreement.
- 1.23 Field Order** - A written order issued by Owner's Representative which orders minor changes in the Work and which does not involve a change in the Contract Amount or the Contract Time.
- 1.24 Final Completion** - The point in time when OWNER determines that all Work has been completed and final payment to CONTRACTOR will be made in accordance with the Contract Documents.
- 1.25 Force Account** - a basis of payment for the direct performance of Work with payment based on the actual cost of the labor, equipment and materials furnished and consideration for overhead and profit as set forth in Section 11.5.
- 1.26 Inspector** - The authorized representative of any regulatory agency that has jurisdiction over any portion of the Work.
- 1.27 Invitation for Bid (IFB)** - a Solicitation requesting pricing for a specified Good or Service which has been advertised for Bid in a newspaper and/or the Internet.

1.28 Legal Holidays

1.28.1 The following are recognized by the OWNER:

<u>Holiday</u>	<u>Date Observed</u>
New Year's Day	January 1
Martin Luther King, Jr.'s Birthday	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Juneteenth	June 19
Independence Day	July 4
Labor Day	First Monday in September
Veteran's Day	November 11
Thanksgiving Day	Fourth Thursday in November
Friday after Thanksgiving	Friday after Thanksgiving

Christmas Eve	December 24
Christmas Day	December 25

1.28.2 If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday.

1.28.3 Christmas Eve is observed only if it falls on a Monday through Thursday. If Christmas Eve falls on a Friday, that day is observed as the Christmas Day holiday.

- 1.29 Milestones** - A significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
- 1.30 Notice to Proceed** - A Written Notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.
- 1.31 OWNER** - City of Austin, Texas, a municipal corporation, home rule city and political subdivision organized and existing under the laws of the State of Texas, acting through the City Manager or his/her designee, officers, agents or employees to administer design and construction of the Project.
- 1.32 Owner's Representative** - The designated representative of the OWNER. The Owner's Representative will be identified at the pre-construction conference.
- 1.33 Partial Occupancy or Use** - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work, provided OWNER and CONTRACTOR have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, utilities, corrective work, insurance and warranties.
- 1.34 Project** - The subject of the Work and its intended result.
- 1.35 Project Manual** - That portion of the Contract Documents which may include the following: introductory information; bidding requirements, Contract forms and General and Supplemental General Conditions; General Requirements; Specifications; Drawings; MBE/WBE or DBE Procurement Program Package; Project Safety Manual; and Addenda.
- 1.36 Resident Project Representative** - The authorized representative of E/A who may be assigned to the site or any part thereof.
- 1.37 Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR as required by the Contract Documents.
- 1.38 Specifications** - Those portions of the Contract Documents consisting of written technical descriptions as applied to the Work, which set forth to CONTRACTOR, in detail, the requirements which must be met by all materials, equipment, construction systems, standards, workmanship, equipment and services in order to render a completed and useful project.
- 1.39 Solicitation** - Solicitation means, as applicable, an Invitation for Bid or a Request for Proposal.
- 1.40 Substantial Completion** - The stage in the progress of the Work when the Work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents so OWNER can occupy or utilize the Work for its intended use, as evidenced by a Certificate of Substantial Completion approved by OWNER.

- 1.41 Subcontractor** - An individual, firm, corporation, or other business entity having a direct contract with CONTRACTOR for the performance of a portion of the Work under the Contract.
- 1.42 Sub-Subcontractor** - A person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the work.
- 1.43 Superintendent** - The representative of CONTRACTOR authorized in writing to receive and fulfill instructions from the Owner's Representative, and who shall supervise and direct construction of the Work.
- 1.44 Supplemental General Conditions** - The part of the Contract Documents which amends or supplements the General Conditions. All General Conditions which are not so amended or supplemented remain in full force and effect.
- 1.45 Supplier** - An individual or entity having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.
- 1.46 Time Extension Request** - An approved request for time extension on a form acceptable to OWNER.
- 1.47 Work** - The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents.
- 1.48 Working Day** - Any day of the week, not including Saturdays, Sundays, or Legal Holidays in which conditions under the CONTRACTOR's control will permit work for a continuous period of not less than seven (7) hours between 7:00 a.m. and 6:00 p.m. If other contract documents reduce the continuous period available for work to less than seven (7) hours, those reduced hours shall be considered a Working Day. Upon agreement with Owner's Representative, work on Saturdays, Sundays, and/or Legal Holidays may be allowed and will be considered a Working Day.
- 1.49 Working Hours**
- 1.49.1 Working Day Contract:** All Work shall be done between 7:00 a.m. and 6:00 p.m. unless otherwise authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. If night Work is authorized and conditions under CONTRACTOR's control will permit Work for a continuous period of not less than seven (7) hours between 12:00 a.m. and 11:59 p.m. it will be considered a Working Day. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.
- 1.49.2 Calendar Day Contract:** All Work shall be done between 7:00 a.m. and 6:00 p.m. unless authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.
- 1.50 Written Notice** - Written communication between OWNER and CONTRACTOR. Written Notice shall be deemed to have been duly served if delivered in person to Owner's Representative or CONTRACTOR's duly authorized representative, or if delivered at or sent by registered or certified mail to the attention of Owner's Representative or CONTRACTOR's duly authorized representative at the last business address known to the party giving notice.

ARTICLE 2 - PRELIMINARY MATTERS

- 2.1 Delivery of Agreement, Bonds, Insurance, etc.:** Within five (5) Working Days after written notification of award of Contract, CONTRACTOR shall deliver to OWNER signed Agreement, Bond(s), Insurance Certificate(s) and other documentation required for execution of Contract.
- 2.2 Copies of Documents:** OWNER shall furnish to CONTRACTOR (1) copy of the executed Project Manual, one (1) set of Drawings and one (1) copy of the Contract Documents in .pdf format. Additional copies will be furnished, upon request, at the cost specified in the Supplemental General Conditions."
- 2.3 Commencement of Contract Times; Notice to Proceed:** The Contract Time(s) will begin to run on the day indicated in the Notice to Proceed. Notice to Proceed will be given at any time within sixty (60) calendar days after the Execution Date of the Agreement, unless extended by written agreement of the parties.
- 2.4 Before Starting Construction:**
- 2.4.1** No Work shall be done at the site prior to the preconstruction conference without OWNER's approval. Before undertaking each part of the Work, CONTRACTOR shall carefully study the Contract Documents to check and verify pertinent figures shown thereon compare accurately to all applicable field measurements. CONTRACTOR shall promptly report in writing to Owner's Representative any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from Owner's Representative before proceeding with any Work affected thereby. CONTRACTOR shall be liable to OWNER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents of which CONTRACTOR knew or reasonably should have known.
- 2.4.2** It is mutually agreed between CONTRACTOR and OWNER that successful completion of the Work within the Contract completion date is of primary importance. Therefore, the CONTRACTOR hereby agrees to submit to the Owner's Representative for review and approval, or acceptance, as appropriate, all information requested within this section, including a Baseline Schedule, no later than five working days prior to the preconstruction conference. The Owner's Representative will schedule the preconstruction conference upon the timely submittal of the required documents, unless time is extended by written mutual agreement. CONTRACTOR will submit the following:
- .1** A proposed Baseline Schedule developed using Microsoft Project software, unless otherwise approved by Owner's Representative ("Baseline Schedule") to confirm that all Work will be completed within the Contract time. The Baseline Schedule must (i) indicate the times (number of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, (ii) identify the Critical Path for completing the Work, (iii) identify when all Subcontractors will be utilized, and (iv) take into consideration any limitations on Working Hours, including baseline Rain Days on Calendar Day Contracts, and (v) be prepared accordance with Section 01310, Schedules and Reports, if applicable; otherwise in accordance with Section 01300, Submittals. This Baseline Schedule, a copy of which shall be made available at the job site(s), must contain sufficient detail to indicate that the CONTRACTOR has properly identified required Work elements and tasks, has provided for a sufficient and proper workforce and integration of Subcontractors, has provided sufficient

resources and has considered the proper sequencing of the Work required to result in a successful Project that can be completed within the Contract time;

- .2 An organizational chart showing the principals and management personnel who will be involved with the Work, including each one's responsibilities for the Work;
- .3 To the extent not set forth in the Section 00400 Statement of Contractor's Experience, a complete listing of the CONTRACTOR's employees proposed for the Work. List each one by name and job title, and show length of employment with CONTRACTOR;
- .4 To the extent not set forth in the Section 00410 Statement of Bidder's Safety Experience, a discussion and confirmation of the CONTRACTOR's commitment to safety by providing a copy of its employee's safety handbook and the safety records for the past three years of CONTRACTOR's proposed project manager and Superintendent;
- .5 A preliminary schedule of Shop Drawing and sample submittals;
- .6 A preliminary schedule of values for all of the Work, subdivided into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will be deemed to include an appropriate amount of overhead and profit applicable to each item of Work;
- .7 To the extent not set forth in the Section 00400 Statement of Contractor's Experience, a letter designating CONTRACTOR's Superintendent and project manager, and a confirmation of past project experience for the CONTRACTOR's Superintendent and project manager specifically intended for the Work;
- .8 A letter from CONTRACTOR and Subcontractor(s) listing salaried specialists. A salaried specialist is anyone except an hourly worker whose wage rate is governed by Section 00830 of this agreement;
- .9 A letter designating the project's Safety Representative along with a copy of their Department of Labor-issued OSHA card proving completion of the OSHA 30-hour Construction Safety and Health training class in the OSHA Outreach Training Program;
- .10 If applicable, an excavation safety system plan;
- .11 If applicable, a plan illustrating proposed locations of temporary facilities;
- .12 A completed Non-Use of Asbestos Affidavit (Prior to Construction);
- .13 A letter designating the Texas Registered Professional Land Surveyor for layout of the Work, if the Work requires the services of a surveyor; and
- .14 Copies of the Department of Labor-issued OSHA cards proving completion of the OSHA 10-hour Construction Safety and Health training class in the OSHA Outreach Training Program for each worker (defined as a person covered by a prevailing wage determination) that will initially be on site. Note that workers must possess other OSHA-required training as the work dictates in accordance with the OSHA Act; and specifically, the contractor must meet the required provisions in 509S Excavation Safety Systems required prior to commencing excavation;

.15 A certificate of worker's compensation insurance coverage for all persons providing services on the Project (refer to 5.2.1.3 in Section 00700 for definition of persons providing services on the Project);

.16 A Construction Equipment Emissions Reduction Plan.

2.4.3 Neither the acceptance nor the approval of any of the submittals required in paragraph 2.4.2, above, will constitute the adoption, affirmation, or direction of the CONTRACTOR'S means and methods.

2.5 Preconstruction Conference: Prior to commencement of Work at the site, CONTRACTOR must attend a preconstruction conference with Owner's Representative and others, as set forth in Division 1. Additionally, prior to commencement of work, the CONTRACTOR shall host a preconstruction conference for the Subcontractors identified on the originally approved compliance plan, Owner's Representative and others, as set forth in Division 1. The CONTRACTOR shall notify all Subcontractors five (5) working days prior to the preconstruction conference. If the CONTRACTOR has included Subcontractors in the initial preconstruction conference, the additional Subcontractor preconstruction conference will not be required.

2.6 Initially Acceptable Schedules: Unless otherwise provided in the Contract Documents, CONTRACTOR shall obtain approval of Owner's Representative on the Baseline Schedule submitted in accordance with paragraph 2.4.2.1 and Division 1 before the first progress payment will be made to CONTRACTOR. The Baseline Schedule must provide for an orderly progression of the designated portion of the Work to completion within any specified Milestones and Contract Times. Acceptance of the schedule by Owner's Representative will neither impose on Owner's Representative responsibility or liability for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility for such Work. CONTRACTOR's schedule of Shop Drawings and sample submissions must provide an acceptable basis for reviewing and processing the required submittals. CONTRACTOR's schedule of values must conform to the requirements set forth in Division 1.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Intent:

3.1.1 The intent of the Contract Documents is to include all information necessary for the proper execution and timely completion of the Work by CONTRACTOR. The CONTRACTOR will execute the Work described in and reasonably inferable from the Contract Documents as necessary to produce the results indicated by the Contract Documents. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. In cases of disagreement, the following order of precedence shall generally govern (top item receiving priority of interpretation):

- Signed Agreement
- Addendum to the Contract Documents, including approved changes
- Supplemental General Conditions
- General Conditions
- Other Bidding Requirements and Contract Forms
- Special Provisions to the Standard Technical Specifications
- Special Specifications
- Standard Technical Specifications

Drawings (figured dimensions shall govern over scaled dimensions)
Project Safety Manual (if applicable),

with the understanding that a common sense approach will be utilized as necessary so that the Contract Documents produce the intended response.

3.1.2 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

3.2 Reporting and Resolving Discrepancies: If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provisions of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual or code or instructions of any Supplier, CONTRACTOR shall report it to Owner's Representative in writing at once, and CONTRACTOR shall not proceed with the Work affected thereby until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.3.1 or 3.3.2. CONTRACTOR shall be liable to OWNER for failure to report any such conflict, error, ambiguity or discrepancy of which CONTRACTOR knew or reasonably should have known.

3.3 Modifying and Supplementing Contract Documents:

3.3.1 The Contract Documents may be modified to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions by change order or contract amendment.

3.3.2 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- .1 Field Order.
- .2 Review of a Shop Drawing or sample.
- .3 Written interpretation or clarification.

3.4 Reuse of Documents Prohibited: CONTRACTOR and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of E/A or E/A's consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and E/A.

3.5 In the event of the breach by the OWNER or CONTRACTOR of any of its obligations under the Contract, so as to support a claim by the other party, the provisions of this Contract will be equitably construed to allow the resolution of such a claim and all of the other provisions of this Contract shall continue in full force and effect as to the rights, responsibilities, and remedies of the OWNER and CONTRACTOR.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 Availability of Lands: The OWNER will provide access to all land and interests in land required for the Work and will notify CONTRACTOR of any restrictions in such access. CONTRACTOR may make a claim if OWNER fails to provide timely access to the Work.

CONTRACTOR must obtain any additional temporary construction facilities, stockpiling or storage sites not otherwise provided.

4.2 Subsurface and Physical Conditions:

4.2.1 CONTRACTOR specifically represents that it has carefully examined the plans, the geotechnical report, if any, and the site of the proposed Work and is thoroughly familiar with all of the conditions surrounding construction of the Project, having had the opportunity to conduct any and all additional inquiry, tests and investigation that he/she deems necessary and proper. CONTRACTOR acknowledges the receipt of the geotechnical report, if any, and agrees that the report, while it is an accurate record of the geotechnical conditions at the boring locations, is not a guarantee of specific site conditions which may vary between boring locations.

4.2.2 CONTRACTOR must notify OWNER in writing as soon as reasonably possible, but no later than three (3) calendar days, if unforeseen conditions are encountered at the site which are (i) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (ii) unknown physical conditions of an unusual nature, that differ materially from those normally encountered in the type of work being performed under this Contract. CONTRACTOR may not disturb the conditions until OWNER conducts an investigation. Owner's Representative and E/A will promptly investigate such conditions with E/A. If it is determined that such conditions differ materially and cause an increase or decrease in the CONTRACTOR's cost of or time required for performance of any part of the Work, Owner's Representative will recommend an equitable adjustment in the Contract Amount or Contract Time, or both. If it is determined that such conditions are not materially different from those indicated in the Contract Documents, Owner's Representative will notify CONTRACTOR in writing of such findings and the Contract will not be adjusted. CONTRACTOR may dispute such a determination in accordance with Article 16.

4.2.3 Notwithstanding any other provision of this Contract, CONTRACTOR is solely responsible for the location and protection of any and all public utility lines and utility customer service lines in the Work area. "Public utility lines" means the utility distribution and supply system, and "utility customer service lines" means the utility lines connecting customers to the utility distribution and collection system. Generally, existing utility customer service line connections are not shown on the Drawings. CONTRACTOR shall notify "One Call" and exercise due care to locate, mark, uncover and otherwise protect all such lines in the construction zone and any of CONTRACTOR's work or storage areas. CONTRACTOR's responsibility for the location and protection of utilities is primary and nondelegable. **CONTRACTOR shall indemnify or reimburse such expenses or costs (including fines that may be levied against OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the work area. OWNER reserves the right to repair any damage CONTRACTOR causes to such utilities at CONTRACTOR's expense. If a public line and/or customer service line is damaged by CONTRACTOR, CONTRACTOR shall give verbal notice within one (1) hour and written notice within twenty-four (24) hours to the Owner's Representative.**

4.2.4 CONTRACTOR shall take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature shall be disturbed without written permission of OWNER and Texas Historical Commission. When such objects are uncovered unexpectedly, CONTRACTOR shall stop all Work in close proximity and notify Owner's Representative and Texas Historical Commission of their presence and shall not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on OWNER's property shall remain property of State of Texas, Texas Historical Commission conforming to Texas Natural Resources Code. If it is determined by OWNER, in consultation with Texas Historical Commission, that exploration or excavation of primitive records or antiquities on Project site is necessary to avoid loss, CONTRACTOR shall cooperate in salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Amount and/or Contract Time will be equitably adjusted.

4.3 Reference Points: Unless otherwise specified, all control lines and bench marks suitable for use in layout will be furnished by OWNER. Lay out of the Work shall be performed in accordance with Division 1. Controls, bench marks and property boundary markers shall be carefully preserved by CONTRACTOR by use of flags, staffs or other visible devices and in case of destruction or removal by CONTRACTOR or its employees, such controls and bench marks shall be replaced by a Registered Professional Land Surveyor at CONTRACTOR's expense. City of Austin survey monuments damaged by CONTRACTOR will be reestablished by OWNER at CONTRACTOR's expense.

4.4 Hazardous Materials:

4.4.1 To the extent provided by applicable law, OWNER shall be responsible for any hazardous material uncovered or revealed at the site which was not shown, indicated or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. CONTRACTOR shall immediately notify Owner's Representative of any suspected hazardous materials encountered before or during performance of the Work and shall take all necessary precautions to avoid further disturbance of the materials.

4.4.2 CONTRACTOR shall be responsible for any hazardous materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.4.3 No asbestos-containing materials shall be incorporated into the Work or brought on Project site without prior approval of OWNER. The CONTRACTOR shall not knowingly use, specify, request or approve for use any asbestos containing materials or lead-based paint without the OWNER'S written approval. When a specific product is specified, the CONTRACTOR shall endeavor to verify that the product does not include asbestos containing material.

4.4.4 Refer to Division 1 for hazardous material definitions and procedures.

.1 Unless otherwise expressly provided in the Contract Documents to be part of the Work, CONTRACTOR is not responsible for any unexpected Hazardous Materials encountered at the site. Upon encountering any Hazardous Conditions, CONTRACTOR must stop Work immediately in the affected area and duly notify OWNER and, if required by applicable law or regulations, all government or quasi-government entities with jurisdiction over the Project or site.

- .2 Upon receiving notice of the presence of suspected Hazardous Materials, OWNER shall take the necessary measures required to ensure that the Hazardous Materials are remediated or rendered harmless. Such necessary measures shall include OWNER retaining qualified independent experts to (i) ascertain whether Hazardous Materials have actually been encountered, and, if they have been encountered, (ii) prescribe the remedial measures that OWNER must take either to remove the Hazardous Materials or render the Hazardous Materials harmless.
- .3 CONTRACTOR shall be obligated to resume Work at the affected area of the Project only after OWNER's Representative provides written certification that (i) the Hazardous Materials have been removed or rendered harmless and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project or site. The CONTRACTOR shall be responsible for continuing the Work in the unaffected portion of the Project and site.
- .4 CONTRACTOR will be entitled, in accordance with these General Conditions, to an adjustment in its Contract Amount and/or Contract Time(s) to the extent CONTRACTOR's cost and/or time of performance have been adversely impacted by the presence of Hazardous Materials.
- .5 Notwithstanding the preceding provisions of this Section 4.1, OWNER is not responsible for Hazardous Materials introduced to the Site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable. **CONTRACTOR shall indemnify, defend and hold harmless OWNER and OWNER's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those hazardous materials introduced to the site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable.**

4.4.5 CONTRACTOR shall be responsible for use, storage and remediation of any hazardous materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers or anyone else for whom CONTRACTOR is responsible.

ARTICLE 5 - BONDS AND INSURANCE

5.1 Surety and Insurance Companies: All bonds and insurance required by the Contract Documents shall be obtained from solvent surety or insurance companies that are duly licensed by the State of Texas and authorized to issue bonds or insurance policies for the limits and coverages required by the Contract Documents. The bonds shall be in a form acceptable to OWNER and shall be issued by a surety which complies with the requirements of Texas Insurance Code, Title 12, Chapter 3503. The surety must obtain reinsurance for any portion of the risk that exceeds 10% of the surety's capital and surplus. For bonds exceeding \$100,000, the surety must also hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance for any liability in excess of \$1,000,000 from a reinsurer that is authorized as a reinsurer in Texas or holds a certificate of authority from the U.S. Secretary of the Treasury. In the event that the proposed surety for a contract award in excess of \$100,000 does not hold a certificate of authority from the

U.S. Secretary of the Treasury and/or its proposed reinsurer does not hold a certificate of authority from the U.S. Secretary of the Treasury, the OWNER may require additional financial solvency information from the Bidder/Contractor and the proposed surety company and/or reinsurer as part of the 00400 Statement of Bidders Experience and determination of bidder responsibility in the award of the Contract.

5.2 Workers' Compensation Insurance Coverage:

5.2.1 Definitions:

- .1** Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (DWC-81, DCW-82, DCW-83, or DCW84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on the Project, for the duration of the Project.
- .2** Duration of the Project - includes the time from the beginning of the Work on the Project until the CONTRACTOR's/ person's Work on the Project has been completed and accepted by OWNER.
- .3** Persons providing services on the Project ("subcontractor" in Texas Labor Code, Section 406.096) - includes all persons or entities performing all or part of the services the CONTRACTOR has undertaken to perform on the Project, regardless of whether that person contracted directly with the CONTRACTOR and regardless of whether that person has employees. This includes, without limitation, independent contractors, Subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

5.2.2 CONTRACTOR shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the CONTRACTOR providing services on the Project, for the duration of the Project.

5.2.3 CONTRACTOR must provide a certificate of coverage to OWNER prior to being awarded the Contract.

5.2.4 If the coverage period shown on the CONTRACTOR's current certificate of coverage ends during the duration of the Project, the CONTRACTOR must, prior to the end of the coverage period, file a new certificate of coverage with OWNER showing that coverage has been extended.

5.2.5 CONTRACTOR shall obtain from each person providing services on the Project, and provide to OWNER:

- .1** A certificate of coverage, prior to that person beginning Work on the Project, so OWNER will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
- .2** No later than seven (7) days after receipt by CONTRACTOR, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.

- 5.2.6** CONTRACTOR shall retain all required certificates of coverage for the duration of the Project and for one (1) year thereafter.
- 5.2.7** CONTRACTOR shall notify OWNER in writing by certified mail or personal delivery, within ten (10) days after CONTRACTOR knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- 5.2.8** CONTRACTOR shall post on each Project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- 5.2.9** CONTRACTOR shall contractually require each person with whom it contracts to provide services on a Project, to:
- .1** Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;
 - .2** Provide to CONTRACTOR, prior to that person beginning Work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
 - .3** Provide CONTRACTOR, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - .4** Obtain from each other person with whom it contracts, and provide to CONTRACTOR: a) a certificate of coverage, prior to the other person beginning Work on the Project; and b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - .5** Retain all required certificates of coverage on file for the duration of the Project and for one (1) year thereafter;
 - .6** Notify OWNER in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
 - .7** Contractually require each person with whom it contracts, to perform as required by paragraphs 5.2.9.1 - 5.2.9.7, with the certificates of coverage to be provided to the person for whom they are providing services.
- 5.2.10** By signing this Contract or providing or causing to be provided a certificate of coverage, CONTRACTOR is representing to OWNER that all employees of the CONTRACTOR who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Texas Worker's Compensation Commission's Division of Self- Insurance Regulation. Providing false or misleading information

may subject CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.

5.2.11 CONTRACTOR's failure to comply with any of these provisions is a breach of Contract by CONTRACTOR which entitles OWNER to declare the Contract void if CONTRACTOR does not remedy the breach within ten (10) days after receipt of notice of breach from OWNER.

5.3 Other Bond and Insurance Requirements: For additional insurance requirements, refer to the Supplemental General Conditions.

5.4 Bonds:

5.4.1 General.

- .1** Bonds, when required, shall be executed on forms furnished by or acceptable to OWNER. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- .2** If the surety on any bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of the preceding paragraph, CONTRACTOR shall within ten (10) days thereafter substitute another bond and surety, both of which must be acceptable to OWNER.
- .3** When Performance Bonds and/or Payment Bonds are required, each shall be issued in an amount of one hundred percent (100%) of the Contract Amount as security for the faithful performance and/or payment of all CONTRACTOR's obligations under the Contract Documents. Performance Bonds and Payment Bonds shall be issued by a solvent surety company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law. Any surety duly authorized to do business in Texas may write Performance and Payment Bonds on a project without reinsurance to the limit of ten percent (10%) of its capital and surplus. Such a surety must reinsure any obligations over ten percent (10%).

5.4.2 Performance Bond.

- .1** If the Contract Amount exceeds \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610.
- .2** If the Contract Amount exceeds \$25,000 but is less than or equal to \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610, unless the original Contract Time is 60 Calendar Days/40 Working Days or less, in which case CONTRACTOR can agree to the following terms and conditions for payment in lieu of providing a Performance Bond: no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER; CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.
- .3** If the Contract Amount is less than or equal to \$25,000, CONTRACTOR will not be required to furnish a Performance Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the following terms and conditions: CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.

- .4 If a Performance Bond is required to be furnished, it shall extend for the one (1) year warranty period.

5.4.3 Payment Bond.

- .1 If the Contract Amount exceeds \$50,000, CONTRACTOR shall furnish OWNER with a Payment Bond in the form set out in Section 00620.
- .2 If the Contract Amount is less than or equal to \$50,000, CONTRACTOR will not be required to furnish a Payment Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the terms and conditions specified in paragraph 5.4.2.3.

- 5.4.4 Maintenance Bond:** If the Contract Documents contemplate a period of maintenance beyond the one (1) year contractual warranty period, OWNER agrees that any bond to be required for such maintenance work will be in the amount of the maintenance work during any extended maintenance period.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision and Superintendence:

6.1.1 CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.1.2 CONTRACTOR shall have a competent, qualified Superintendent on the Work at all times that work is in progress. To be qualified, at a minimum, the Superintendent must be effective at (a) communicating both verbally and in writing with the OWNER's representative; (b) receiving and fulfilling instructions from the Owner's Representative; (c) supervising and directing the construction of the Work; (d) reading and interpreting the plans and specifications; (e) writing, preparing and submitting necessary paperwork; and (f) understanding work sequencing and scheduling. The Superintendent will be CONTRACTOR's representative on the Work and shall have the authority to act on the behalf of CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to CONTRACTOR. Either CONTRACTOR or the Superintendent shall provide a cellular telephone number and an emergency and home telephone number at which one or the other may be reached if necessary when work is not in progress. The Superintendent must be an employee of the CONTRACTOR, unless such requirement is waived in writing by the Owner's Representative. If the CONTRACTOR proposes a management structure with a Project Manager supervising, directing, and managing construction of the work in addition to or in substitution of a Superintendent, the requirements of these Construction Documents with respect to the Superintendent shall likewise apply to any such Project Manager.

- .1 CONTRACTOR shall present the resume of the proposed Superintendent to the Owner's Representative showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. If, in the opinion of the Owner's Representative, the proposed Superintendent does

not indicate sufficient experience in line with the Work, he/she will not be allowed to be the designated Superintendent for the Work.

- .2 The Superintendent shall not be replaced without Written Notice to Owner's Representative. If CONTRACTOR deems it necessary to replace the Superintendent, CONTRACTOR shall provide the necessary information for approval, as stated above, on the proposed new Superintendent.
- .3 A qualified substitute Superintendent may be designated in the event that the designated Superintendent is temporarily away from the Work, but not to exceed a time limit acceptable to the Owner's Representative. CONTRACTOR shall replace the Superintendent upon OWNER's request in the event the Superintendent is unable to perform to OWNER's satisfaction.

6.2 Labor, Materials and Equipment:

- 6.2.1** CONTRACTOR shall maintain a work force adequate to accomplish the Work within the Contract Time. CONTRACTOR agrees to employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any alcoholic or other intoxicating beverages, illegal drugs or controlled substances while on the job or on OWNER's property, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job. Subject to the applicable provisions of Texas law, CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any firearms or other weapons while on the job or on OWNER'S property. If OWNER or Owner's Representative notifies CONTRACTOR that any worker or representative of Contractor is incompetent, disorderly, abusive, or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms in contravention of the applicable provisions of Texas law, or has possessed or was under the influence of alcohol or drugs on the job, CONTRACTOR shall immediately remove such worker or representative, including an officer or owner of CONTRACTOR, from performing Contract Work, and may not employ such worker or representative again on Contract Work without OWNER's prior written consent. CONTRACTOR shall at all times maintain good discipline and order on or off the site in all matters pertaining to the Project. Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.
- 6.2.2** Unless otherwise specified in Division 1, CONTRACTOR shall provide and pay for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 6.2.3** All materials and equipment shall be of good quality and new (including new products made of recycled materials, pursuant to Section 361.426 of the Texas Health & Safety Code), except as otherwise provided in the Contract Documents. If required by Owner's Representative, CONTRACTOR shall furnish satisfactory evidence (reports of required tests, manufacturer's certificates of compliance with material requirements, mill reports, etc.) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected,

erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

6.2.4 Substitutes and "Approved Equal" Items:

- .1** Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains words reading that no like, equivalent or "approved equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted by CONTRACTOR, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, to E/A through Owner's Representative under the following circumstances:
 - .1.1** "Approved Equal": If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by E/A as an "approved equal" item, in which case review of the proposed item may, in E/A's sole discretion, be accomplished without compliance with some or all of the requirements for evaluation of proposed substitute items. CONTRACTOR shall provide E/A with the documentation required for E/A to make its determination.
 - .1.2** Substitute Items: If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "approved equal" item under subparagraph 6.2.4.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided in Division 1 to allow E/A to determine that the item of material or equipment proposed is essentially equivalent to that named and a substitute therefor.
- .2** Substitute Construction Methods and Procedures: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, with prior approval of E/A furnish or utilize a substitute means, method, technique, sequence, or procedure of construction. CONTRACTOR shall submit sufficient information to Owner's Representative to allow E/A, in E/A's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by E/A will be same as that provided for substitute items in Division 1.
- .3** E/A's Evaluation: E/A will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to subparagraphs 6.2.4.1.1 and 6.2.4.1.2. E/A will be the sole judge of acceptability. No "approved equal" or substitute shall be ordered, installed, or utilized until E/A's review is complete, which will be evidenced by either a Change Order or completion of the Shop Drawing review procedure. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety bond with respect to any "approved equal" or substitute or for any other delay or disruption to the Critical Path of the Project Schedule attributable to any such substitution. OWNER shall not be responsible for any delay due to review time for any "approved equal" or substitute.

- .4 CONTRACTOR's Expense: All data and documentation to be provided by CONTRACTOR in support of any proposed "approved equal" or substitute item will be at CONTRACTOR's expense.
- .5 The approval of the E/A will not relieve the CONTRACTOR from primary responsibility and liability for the suitability and performance of any proposed substitute item, method or procedure and will not relieve CONTRACTOR from its primary responsibility and liability for curing defective Work and performing warranty work, which the CONTRACTOR shall cure and perform, regardless of any claim the CONTRACTOR may choose to advance against the E/A or manufacturer.

6.2.5 CONTRACTOR agrees to assign to OWNER any rights it may have to bring antitrust suits against its Suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. CONTRACTOR further agrees to cooperate with OWNER should OWNER wish to prosecute suits against Suppliers for illegal price fixing.

6.3 Progress Schedule: Unless otherwise provided in Division 1, CONTRACTOR shall adhere to the Baseline Schedule established in accordance with paragraph 2.6 as it may be adjusted from time to time as provided below:

6.3.1 CONTRACTOR shall submit to Owner's Representative for review and approval any proposed adjustments in the Progress Schedule that will not change the Contract Times or Milestones on a monthly basis. Any such proposed adjustments must be substantiated with documentation of any changes to the underlying logic of the Progress Schedule. CONTRACTOR's Progress Schedule must show how the CONTRACTOR will consistently advance the progress of the Work in accordance with the Critical Path of the Work and the Contract Time or Milestones. Such adjustments will conform generally to the Progress Schedule then in effect and additionally will comply with any provisions of Division 1 applicable thereto.

6.3.2 Proposed adjustments in the Progress Schedule that will change the Contract Times or Milestones shall be submitted in accordance with the requirements of Article 12. Any such proposed adjustments must be substantiated with documentation of any changes to the underlying logic of the Progress Schedule. Such adjustments may only be made by a Change Order or Time Extension Request in accordance with Article 12.

6.4 Concerning Subcontractors, Suppliers and Others:

6.4.1 Assignment: CONTRACTOR agrees to retain direct control of and give direct attention to the fulfillment of this Contract. CONTRACTOR agrees not to, by Power of Attorney, or otherwise, assign said Contract without the prior written consent of OWNER. In addition, without OWNER'S written consent, the CONTRACTOR will not subcontract the performance of the entire Work or the supervision and direction of the Work.

6.4.2 Award of Subcontracts for Portions of the Work: CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom OWNER may have reasonable objection. OWNER will communicate such objections by Written Notice. If OWNER requires a change without good cause of any Subcontractor, person or organization previously accepted by OWNER, the Contract Amount shall be increased or decreased by the difference in the cost occasioned by any such change, and appropriate Change Order shall be issued. CONTRACTOR shall not substitute any Subcontractor, person or

organization that has been accepted by OWNER, unless the substitute has been accepted in writing by OWNER. No acceptance by OWNER of any Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER to reject defective Work.

- 6.4.3** CONTRACTOR shall enter into written agreements with all Subcontractors and Suppliers which specifically binds the Subcontractors or Suppliers to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and E/A. The OWNER reserves the right to specify that certain requirements shall be adhered to by all Subcontractors and Sub-subcontractors as indicated in other portions of the Contract Documents and these requirements shall be made a part of the agreement between CONTRACTOR and Subcontractor or Supplier. Subject to and in accordance with the above requirements, the CONTRACTOR must provide and will be deemed for all purposes to have provided in its contracts with major Subcontractors or Suppliers on the Project (those contracts of more than \$10,000) the following specific provision: alternative dispute resolution (paragraphs 16.2 and 16.3), which shall be mandatory in the event of a subcontractor or supplier claim and a prerequisite for the submission of any derivative claim. The CONTRACTOR's standard subcontract form is subject to the OWNER's review and approval. The OWNER may request and the CONTRACTOR will provide within five (5) working days a copy of any subcontract requested by the OWNER.
- 6.4.4** CONTRACTOR shall be fully responsible to OWNER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or E/A to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by laws and regulations.
- 6.4.5** CONTRACTOR shall be solely responsible for efficiently scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR in order to avoid any delays or inefficiencies in the prosecution of the Work. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner's Representative through CONTRACTOR.
- 6.4.6** The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.
- 6.4.7** CONTRACTOR shall pay each Subcontractor and Supplier their appropriate share of payments made to CONTRACTOR not later than ten (10) Calendar Days of CONTRACTOR's receipt of payment from OWNER. Upon request from Owner, the CONTRACTOR has two (2) Working Days to provide documentation verifying Payment to Subcontractor(s). The CONTRACTOR is required to notify the Subcontractor(s) in writing of rejection of Application for Payment within two (2) Working Days following notification by Owner. Failure of CONTRACTOR to make payments to Subcontractors or for labor, materials or equipment in accordance to this contract, may be cause to reject future Bids by the CONTRACTOR in accordance

with Section 00100 9.2.4 and may be cause to reject payment in accordance with 00700 14.4.1.3.

6.4.8 To the extent allowed by Texas law, the OWNER shall be deemed to be a third party beneficiary to each subcontract and may, if OWNER elects, following a termination of the CONTRACTOR, require that the Subcontractor(s) perform all or a portion of unperformed duties and obligations under its subcontract(s) for the benefit of the OWNER, rather than the CONTRACTOR; however, if the OWNER requires any such performance by a Subcontractor for the OWNER's direct benefit, then the OWNER shall be bound and obligated to pay such Subcontractor the reasonable value for all Work performed by such Subcontractor to the date of the termination of the CONTRACTOR, less previous payments, and for all Work performed thereafter. In the event that the OWNER elects to invoke its right under this section, OWNER will provide notice of such election to the CONTRACTOR and the affected Subcontractor(s).

6.5 Patent Fees and Royalties:

6.5.1 CONTRACTOR shall be responsible at all times for compliance with applicable patents or copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.

6.5.2 CONTRACTOR shall pay all royalties and license fees and shall provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not a particular design, device, material, or process is specified by OWNER.

6.5.3 **CONTRACTOR shall defend all suits or claims for infringement of any patent or copyright and shall save OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR's process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event CONTRACTOR shall indemnify and save harmless OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against OWNER.**

6.5.4 OWNER shall have the right to stop the Work and/or terminate this Agreement at any time in the event CONTRACTOR fails to disclose to OWNER that CONTRACTOR's work methodology includes the use of any infringing design, device, material or process.

6.6 Permits, Fees: Unless otherwise provided in the Supplemental General Conditions, CONTRACTOR shall obtain and pay for all construction permits, licenses and fees required for prosecution of the Work.

6.7 Laws and Regulations:

6.7.1 CONTRACTOR shall give all notices and comply with all laws and regulations applicable to furnishing and performing the Work, including arranging for and

obtaining any required inspections, tests, approvals or certifications from any public body having jurisdiction over the Work or any part thereof. Except where otherwise expressly required by applicable laws and regulations, neither OWNER nor E/A shall be responsible for monitoring CONTRACTOR's compliance with any laws and regulations.

6.7.2 Maintaining clean water, air and earth or improving thereon shall be regarded as of prime importance. CONTRACTOR shall plan and execute its operations in compliance with all applicable Federal, State and local laws and regulations concerning control and abatement of water pollution and prevention and control of air pollution.

6.7.3 If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to laws or regulations, CONTRACTOR shall bear all claims, costs, losses and damages arising therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with laws and regulations, but this does not relieve CONTRACTOR of CONTRACTOR's obligations under Article 3.

6.8 Taxes:

6.8.1 CONTRACTOR shall pay only those sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Texas in the performance of this public works contract.

6.8.2 OWNER is an exempt organization as defined by Chapter 11 of the Property Tax Code of Texas and is thereby exempt from payment of Sales Tax under Chapter 151, Limited Use Sales, Excise and Use Tax, Texas Tax Code, and Article 1066 (C), Local Sales and Use Tax Act, Revised Civil Statutes of Texas.

6.9 Use of Premises:

6.9.1 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by laws and regulations, right-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of or in connection with the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. **CONTRACTOR shall indemnify, defend and hold harmless OWNER, E/A, E/A'S Consultants and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including court costs and reasonable attorney's fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the work or failure to perform the Work.**

6.9.2 During the progress of the Work and on a daily basis, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall, at a minimum, restore to original condition all property not designated for alteration by the Contract Documents. If the CONTRACTOR fails to clean up at the completion of the Work, OWNER may do so and the cost thereof will be charged against the CONTRACTOR.

6.9.3 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.10 Record Documents: CONTRACTOR shall maintain in a safe place at the site, or other location acceptable to OWNER, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.5) in good order and annotated to show all changes made during construction. These record documents together with all final samples and all final Shop Drawings will be available to OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, these record documents, samples and Shop Drawings shall be promptly delivered to Owner's Representative.

6.11 Safety and Protection:

6.11.1 CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Upon request, and prior to installation of measures, CONTRACTOR shall submit a site security plan for approval by OWNER. By reviewing the plan or making recommendations or comments, OWNER will not assume liability nor will CONTRACTOR be relieved of liability for damage, injury or loss. CONTRACTOR shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:

- .1 all persons on the Work site or who may be affected by the Work;
- .2 all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- .3 other property at the site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

6.11.2 CONTRACTOR shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of underground facilities, and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.11.1.2 and 6.11.1.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, Subcontractor, Supplier or any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or

Specifications or to the acts or omissions of OWNER, or E/A, or E/A's consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the faults or negligence of CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and Owner's Representative has issued a notice to OWNER and CONTRACTOR in accordance with Article 14 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion). Without limitation, CONTRACTOR shall comply with the following specific provisions:

It shall be the duty and responsibility of CONTRACTOR and all of its subcontractors to be familiar with and comply with 29 USC Section 651, et seq., the Occupational Safety and Health Act of 1970, as amended ("OSHA") and to enforce and comply with all provisions of this Act.

The CONTRACTOR and all of its subcontractors shall comply with all applicable requirements of Subpart P of Part 1926 of 29 C.F.R, OSHA Safety and Health Standards, Texas Health and Safety Code Section 756.023, as amended, and shall submit a unit price for the particular excavation safety systems to be utilized by the Contractor for all excavations which exceed a depth of five feet (5').

Before commencing any excavation which will exceed a depth of five feet (5'), the CONTRACTOR shall provide the Owner with detailed plans and specifications regarding the safety systems to be utilized. Said plans and specifications shall include a certification from a Texas licensed professional engineer indicating full compliance with the OSHA provisions cited above.

6.11.3 Safety Representative: CONTRACTOR shall designate in writing a qualified and experienced safety representative (the "Safety Representative") at the site whose duties and responsibilities shall include safety training; identifying and mitigating hazardous conditions and unsafe work practices; and developing, maintaining and supervising the implementation of safe work practices and safety programs as deemed necessary and appropriate for the Project. The term "Safety Representative" includes any designated Safety Supervisor, Superintendent or Safety Manager. The Safety Representative shall exercise due diligence in the execution of all Project related safety duties. Upon request of OWNER, CONTRACTOR shall provide certifications or other acceptable documentation of the Safety Representative's qualifications. The following requirements will be effective as of September 1, 2010:

- .1 The Safety Representative shall present certification of completion of the OSHA 30-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html
- .2 The Safety Representative shall verify that all construction workers (defined as persons covered by a prevailing wage determination) on the job site, whether employed by the CONTRACTOR or subcontractors, have completed the OSHA 10-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html. The Safety Representative must receive a certificate of training completion before allowing a worker on site and shall have all such certificates available for inspection by the OWNER.
- .3 The Safety Representative shall ensure that workers, including designated competent persons, have completed all applicable OSHA specific or other training needed to perform their job assignments. Training topics applicable

to the scope of the current Project may include, but are not limited to, scaffolds, fall protection, cranes, excavations, electrical safety, tools, concrete and masonry construction, steel erection, operation of motor vehicles and mechanized equipment.

- .4 The Safety Representative shall post notice on the site of the Work stating that all workers shall have completed OSHA Construction Industry Training. The Owner may require, and the Safety Representative should consider providing a means of readily identifying workers who have completed the required training to monitor compliance with these requirements.
- .5 The Safety Representative shall ensure that all required OSHA and Workers Compensation notices to workers are posted in English and Spanish at one or more conspicuous locations on the work site.

6.11.4 Hazard Communication Programs: CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with laws and regulations.

6.11.5 Emergencies:

- .1 In emergencies affecting the safety or protection of persons or the Work at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. CONTRACTOR shall give Owner's Representative telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner's Representative determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Directive or Change Order will be issued to document the consequences of such action; otherwise OWNER will not be responsible for CONTRACTOR's emergency action.
- .2 Authorized agents of CONTRACTOR shall respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project site of CONTRACTOR or his agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should CONTRACTOR and/or their agent fail to respond and take action to alleviate such an emergency situation, OWNER may direct other forces to take action as necessary to remedy the emergency condition, and OWNER will deduct any cost of such remedial action from the funds due CONTRACTOR under this Contract.
- .3 In the event there is an accident involving injury to any individual or damage to any property on or near the Work, CONTRACTOR shall provide to Owner's Representative verbal notification within one (1) hour and written notification within twenty-four (24) hours of the event and shall be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports, police accident reports and other documentation that describes the event. Copies of such documentation shall be provided to Owner's Representative, for OWNER's and E/A's records, within forty-eight (48) hours of the event.

Contractor shall cooperate with OWNER on any OWNER investigation of any such incident.

6.11.6 Rest Breaks:

- .1 Except as provided in subsection 6.11.6.2 below, an employee performing construction activity at a construction site is entitled to a rest break of not less than ten (10) minutes for every four (4) hours worked. No employee may be required to work more than 3.5 hours without a rest break. A rest break means a break from work within working hours, excluding meal breaks, during which an employee may not work. A rest break shall be scheduled as near as possible to the midpoint of the work period.
- .2 An employee is not entitled to a rest break under subsection 6.11.6.1 on any day the employee works less than 3.5 hours or spends more than half of his or her work time engaged in non-strenuous labor in a climate controlled environment.
- .3 A sign describing the requirements of this Section 6.11.6 in English and Spanish shall be posted by the employer in each establishment subject to the requirement of a rest break in a conspicuous place or places where notices to employees are customarily posted, in accordance with the OWNER's then current rules for size, content, and location of such signage.
- .4 The violation of Ordinance No. 20100729-047, enacted July 29, 2010, which establishes the rest break requirements set forth above, may be enforced with criminal penalties and civil remedies, as set forth in the Ordinance.

6.11.7 If the Contractor fails to carry out the Work in accordance with the Contract Documents so that a safety violation has occurred, the Owner may order the Contractor to stop the Work or any portion thereof, until the cause for such order has been eliminated. However, the right of the Owner to stop the Work under this paragraph shall not give rise to a duty on the part of the Owner to supervise the Contractor's Work or to control the Contractor's means and methods or to exercise this right for the benefit of the Contractor or any other person or entity. All time lost due to Project shut down will be the Contractor's sole responsibility, will be charged against the Contract Time, and the Contractor will be responsible for any and all expenses incurred. This provision is in addition to and supplemental to the applicable provisions of the Project's ROCIP Safety Manual.

6.11.8 Confined Space Program

- .1 Contractor acknowledges and agrees that the Owner is temporarily transferring management and control of the site of the Work to the Contractor for the purpose of constructing the Project. The Contractor's responsibilities to manage the Work includes the responsibility to manage the property for purposes of compliance with 29 CFR 1926 subpart AA. To the best of Owner's knowledge and belief, Owner has provided the following information in the plans and specifications and other Contract Documents: (i) the location of each known permit space, (ii) the hazards or potential hazards in each space or the reason it is a permit space; and (iii) any precautions that the Owner or any previous contractor has implemented for the protection of employees in the permit space. This transfer will result in the Contractor being both the host employer and the controlling contractor for this portion of the Work.

6.12 Continuing the Work: CONTRACTOR shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as OWNER and CONTRACTOR may otherwise agree in writing.

6.13 CONTRACTOR's General Warranty and Guarantee:

6.13.1 CONTRACTOR warrants and guarantees to OWNER that all Work will conform to the plans and specifications, be performed in a good and workmanlike manner in accordance with the Contract Documents and will not be defective. This warranty will survive the termination or expiration of the Contract. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

- .1 abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or
- .2 normal wear and tear under normal usage.

6.13.2 CONTRACTOR's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

- .1 observations by Owner's Representative and/or E/A;
- .2 recommendation of any progress or final payment by Owner's Representative;
- .3 the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;
- .4 use or occupancy of the Work or any part thereof by OWNER;
- .5 any acceptance by OWNER or any failure to do so;
- .6 any review of a Shop Drawing or sample submittal;
- .7 any inspection, test or approval by others; or
- .8 any correction of defective Work by OWNER.

6.14 INDEMNIFICATION:

6.14.1 CONTRACTOR shall defend, indemnify and hold harmless OWNER, E/A, E/A'S Consultants and Sub consultants and their respective officers, directors, partners, employees, agents and other Consultants and any of them (the "INDEMNIFIED PARTIES") from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage:

- .1 Is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and**

- .2 Is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of the INDEMNIFIED PARTIES hereunder or whether liability is imposed upon such INDEMNIFIED PARTY by laws and regulations regardless of the negligence of any such person or entity.**

In the event that indemnification of the INDEMNIFIED PARTIES is prohibited by law, CONTRACTOR shall nonetheless be solely responsible for any liability arising out of or resulting from the performance of the Work, subject to the limitations set forth above, and shall indemnify and hold harmless the remaining INDEMNIFIED PARTIES, who may be legally indemnified, from such liability of the CONTRACTOR and the associated costs described above.

- 6.14.2 The indemnification obligation under paragraph 6.14.1 shall not be limited in any way by any limitation on the amount or type of damages, or compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.**
- 6.14.3 The obligations of CONTRACTOR under paragraph 6.14.1 shall not extend to the liability of OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or agents caused primarily by negligent preparation of maps, drawings, surveys, designs or specifications upon which is placed the applicable state-authorized design professional seal of OWNER's, E/A's or E/A's consultant's officers, directors, partners, employees or agents.**
- 6.14.4 In the event CONTRACTOR fails to follow OWNER's directives concerning use of the site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, CONTRACTOR shall indemnify OWNER against all costs resulting from such claims.**
- 6.14.5 In the event CONTRACTOR unreasonably delays progress of the work being done by others on the site so as to cause loss for**

which OWNER becomes liable, then CONTRACTOR shall indemnify OWNER from and reimburse OWNER for such loss.

- 6.15** Survival of Obligations: All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.
- 6.16 Losses from Natural Causes:** Unless otherwise specified, all loss or damage to CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, shall be sustained and borne by CONTRACTOR at its own cost and expense.
- 6.17 Notice of Claim:** Should CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of OWNER or of any of OWNER's employees or agents or others for whose acts OWNER is liable, a Claim must be made to the other party within thirty (30) calendar days of the event giving rise to such injury or damage. The provisions of this paragraph 6.17 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.
- 6.18 Liquidated Damages:** CONTRACTOR or its Surety shall be liable for liquidated damages for the failure of the CONTRACTOR to timely complete the Work or any portion thereof within the Contract Time.

ARTICLE 7 - OTHER WORK

- 7.1** OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other contracts therefor, or have other work performed by utility owners. CONTRACTOR and OWNER agree to and shall use best efforts to cooperate and coordinate the Work with others performing work and other work related to the Project in order to avoid conflicts and delays in the Work. If CONTRACTOR believes that delay or additional cost is involved because of such action by OWNER, CONTRACTOR may make a Claim as provided in Article 11 or 12.
- 7.2** CONTRACTOR shall afford other contractors who are in a contract with OWNER and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of Owner's Representative and the other contractors whose work will be affected. CONTRACTOR shall promptly remedy damage wrongfully caused by CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.
- 7.3** If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to Owner's Representative in writing any delays, defects or deficiencies in

such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.

- 7.4** OWNER shall provide for coordination of the activities of the OWNER's own forces and of each separate contractor with the Work of CONTRACTOR, who shall cooperate with them. CONTRACTOR shall participate with other separate contractors and Owner's Representative in reviewing their construction Progress Schedules when directed to do so. On the basis of such review, CONTRACTOR shall make any revisions to the construction Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed upon construction Progress Schedules shall then constitute the Progress Schedules to be used by CONTRACTOR, separate contractors and OWNER until subsequently revised.
- 7.5** Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

- 8.1** Prior to the start of construction, OWNER will designate in writing a person or entity to act as Owner's Representative during construction. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through Owner's Representative.
- 8.2** OWNER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto. OWNER is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to furnishing or performing the Work. OWNER is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of OWNER to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.
- 8.3** OWNER is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work. CONTRACTOR acknowledges and agrees that OWNER'S direction to perform Work in accordance with the approved Progress Schedule is not a demand for acceleration or a dictation of CONTRACTOR'S means or methods.
- 8.4** Information or services under the OWNER's control shall be furnished by the OWNER with reasonable promptness to avoid delay in orderly progress of the Work. The OWNER shall have a reasonable amount of time to investigate site conditions, review submittals, analyze requests for changes, and to make other decisions in the orderly administration of the Contract. CONTRACTOR must notify the OWNER in writing, if the time for the investigation, review, analysis of any submittals, required for changes or otherwise required for OWNER'S decision, impacts in any way the Critical Path of the approved Progress Schedule.
- 8.5** The foregoing are in addition to other duties and responsibilities of the OWNER enumerated herein and especially those in respect to Article 4 (Availability of Lands; Subsurface and Physical Conditions; Reference Points), Article 7 (Other Work) and Article 14 (Payments to CONTRACTOR and Completion).
- 8.6** **Notice of Claim:** Should OWNER suffer injury or damage to person or property because of any error, omission or act of CONTRACTOR or of any of CONTRACTOR's employees or agents or others for whose acts CONTRACTOR is liable, a Claim will be made to the other

party within thirty (30) calendar days of receipt of actual or constructive notice of the event giving rise to such injury or damage. The provisions of this paragraph 8.6 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

ARTICLE 9 - ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION

9.1 E/A's Authority and Responsibilities:

9.1.1 The duties and responsibilities and the limitations of authority of E/A during construction, as set forth in the Contract Documents, may be assigned or assumed by the OWNER, but shall not be extended without written consent of OWNER and/or E/A. The assignment of any authority, duties or responsibilities to E/A under the Contract Documents, or under any agreement between OWNER and E/A, or any undertaking, exercise or performance thereof by E/A, is intended to be for the sole and exclusive benefit of OWNER and not for the benefit of CONTRACTOR, Subcontractor, Supplier, or any other person or organization, or for any surety or employee or agent of any of them.

9.1.2 E/A will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. E/A is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. E/A is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of E/A to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.

9.1.3 E/A is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.1.4 If OWNER and E/A agree, E/A will review the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by Article 14, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.1.5 The limitations upon authority and responsibility set forth in this paragraph 9.1 shall also apply to E/A's Consultants, Resident Project Representative and assistants.

9.2 E/A as Owner's Representative: E/A may be designated as the Owner's Representative under paragraph 8.1.

9.3 Visits to Site: If OWNER and E/A agree, E/A will make visits to the site at intervals appropriate to the various stages of construction as E/A deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, E/A will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. E/A will not be required to make exhaustive or continuous on-site

inspections to check the quality or quantity of the Work. E/A's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, E/A will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. E/A's visits and on-site observations are subject to all the limitations on E/A's authority and responsibility set forth in paragraph 9.1.

- 9.4 Resident Project Representative:** If OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in paragraph 9.1 and in the Supplemental General Conditions. OWNER may designate another representative or agent to represent OWNER at the site who is not E/A, E/A's consultant, agent or employee.
- 9.5 Clarifications and Interpretations:** E/A may determine that written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by Owner's Representative and will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Amount or the Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in Article 11 or 12.
- 9.6 Rejecting Defective Work:** E/A will recommend that OWNER disapprove or reject Work which E/A believes to be defective, or believes will not produce a completed Project that conforms to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 9.7 Shop Drawings:** Refer to Division 1 for E/A's authority concerning Shop Drawings.

ARTICLE 10 - CHANGES IN THE WORK

10.1 Changes:

- 10.1.1** Without invalidating the Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such changes in the Work will be authorized by Change Order, Change Directive or Field Order. In the event that the OWNER and the CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another contractor and such work will be considered "Other Work" in accordance with Article 7.
- 10.1.2** Changes in the Work shall be performed under applicable provisions of the Contract Documents, and CONTRACTOR shall proceed promptly, unless otherwise provided in the Change Order, Change Directive or Field Order. CONTRACTOR's proposals for changes in the Contract Amount and/or Contract Time shall be submitted within ten (10) Calendar Days of request by Owner's Representative, including impacts to the approved Progress Schedule, unless Owner's Representative grants an extension. OWNER will review each proposal and respond to CONTRACTOR within ten (10) Calendar Days. After review by OWNER, CONTRACTOR shall provide any supporting data requested by Owner's Representative within seven (7) Calendar Days, unless Owner's Representative grants an extension. OWNER will determine within seven (7) Calendar Days whether to pursue the change in Work.

- 10.1.3** CONTRACTOR shall not be entitled to an increase in the Contract Amount or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.3.1 and 3.3.2, except in the case of an emergency as provided in paragraph 6.11.5 or in the case of uncovering Work as provided in paragraph 13.4.
- 10.1.4** Except in the case of an emergency as provided in paragraph 6.11.5, a Change Order or Change Directive is required before CONTRACTOR commences any activities associated with a change in the Work which, in CONTRACTOR 's opinion, will result in a change in the Contract Amount and/or Contract Times.
- 10.1.5** If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Amount or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10.2 Change Orders:

- 10.2.1** OWNER and CONTRACTOR shall execute appropriate written Change Orders covering:
- .1** a change in the Work;
 - .2** the amount of the adjustment in the Contract Amount, if any; and
 - .3** the extent of the adjustment in the Contract Time, if any.
- 10.2.2** An executed Change Order shall represent the complete, equitable, and final amount of adjustment in the Contract Amount and/or Contract Time owed to CONTRACTOR or OWNER as a result of the occurrence or event causing the change in the Work encompassed by the Change Order.

10.3 Change Directives:

- 10.3.1** Without invalidating the Contract, OWNER may, by written Change Directive, using the Force Account method, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Amount and Contract Time being adjusted as necessary. "Force Account" means a basis of payment for the direct performance of Work with payment based on the actual cost of the labor, equipment and materials furnished and consideration for overhead and profit as set forth in Section 11.5, below. A Change Directive shall be used in the absence of complete and prompt agreement on the terms of a Change Order. Where practicable, any items of Work that may be agreed upon, prior to the performance of Work under this Section, will be included in a separate Change Order. For example, the cost of the installation of additional asphalt may be agreed upon based on the unit prices in the Bid.
- 10.3.2** If the Change Directive provides for an adjustment to the Contract Amount, the adjustment shall be based on the method provided in paragraph 11.5.
- 10.3.3** A Change Directive shall be effective immediately and shall be recorded later by preparation and execution of an appropriate Change Order.
- 10.3.4** Upon receipt of a Change Directive, CONTRACTOR shall promptly proceed with the change in the Work involved, provided, prior to the commencement of any Work under this section, the CONTRACTOR must submit its proposed Work plan, anticipated schedule, and a list of its work force and equipment proposed to be

used in the Work for OWNER'S approval. Upon such approval, CONTRACTOR must promptly commence and make continuous progress in the Work. The OWNER reserves the right to withhold payment for low production or lack of progress.

10.4 Field Order:

10.4.1 Owner's Representative may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Amount or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These shall be accomplished by written Field Order and shall be binding on OWNER and on CONTRACTOR who shall perform the Work involved promptly.

10.4.2 If CONTRACTOR believes that a Field Order would require an adjustment in the Contract Amount and/or Contract Times, CONTRACTOR shall make a prompt written request to Owner's Representative for a Change Order. Any request by CONTRACTOR for an adjustment in Contract Amount and/or Contract Times must be made in writing prior to beginning the work covered by the Field Order.

10.5 No Damages for Delay: CONTRACTOR shall receive no compensation for delays or hindrances to the Work, except when direct and unavoidable extra cost to CONTRACTOR is caused by failure of OWNER to provide information or material, if any, which is to be furnished by OWNER or access to the Work and only to the extent that such acts continue after the CONTRACTOR furnishes OWNER with written notice of such failure. When such extra compensation is claimed a written statement thereof shall be presented by CONTRACTOR to OWNER and if by OWNER found correct shall be approved. If delay is caused by specific orders given by OWNER to stop work or by performance of extra Work or by failure of OWNER to provide material or necessary instructions for carrying on the Work, then such delay will entitle CONTRACTOR to an equivalent extension of time, CONTRACTOR's application for which shall, however, be subject to approval of OWNER. No such extension of time shall release CONTRACTOR or surety on its performance bond from all CONTRACTOR's obligations hereunder which shall remain in full force until discharge of the Contract. In no event shall the CONTRACTOR be entitled to any compensation or recovery of any special damages in connection with any delays, including without limitation: consequential damages, lost opportunity costs, impact damages, or other similar damages. The OWNER'S exercise of any of its rights or remedies under the Contract Documents (including without limitation ordering changes in the Work, or directing suspension, rescheduling, or correction of the Work), regardless of the extent or frequency of the OWNER'S exercise of such rights or remedies, shall not be construed as active interference in the CONTRACTOR'S performance of the Work. Except as otherwise provided herein, an extension of Contract Time, to the extent permitted under Article 12, shall be the sole remedy of the CONTRACTOR for any acknowledged delays.

ARTICLE 11 - CHANGE OF CONTRACT AMOUNT

11.1 The Contract Amount is stated in the Agreement and, including authorized adjustments, is the total amount payable by OWNER to CONTRACTOR for performance of the Work under the Contract Documents.

11.2 The original Contract Amount may not be increased by more than twenty-five percent (25%) and it may not be decreased more than twenty-five percent (25%) without the consent of the CONTRACTOR to such decrease, except in the event of a termination for convenience under paragraph 15.2 or the failure of the City Council to appropriate sufficient

funding for the Project, in which events it is agreed that the consent of the CONTRACTOR will not be required.

11.3 The Contract Amount shall only be changed by a Change Order. Any claim for an adjustment in the Contract Amount shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days) after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed covers all known amounts to which claimant is entitled as a result of said occurrence or event. If OWNER and CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Amount shall be determined as set out in Article 16.

11.4 Determination of Value of Work:

11.4.1 The value of any Work covered by a Change Order for an adjustment in the Contract Amount will be determined by one or more of the following methods:

- .1 by application of unit prices contained in the Contract Documents to the quantities of the items involved.
- .2 by a mutually agreed unit price, or lump sum properly itemized and supported by sufficient substantiating data, including documentation by subcontractors performing the work, to permit evaluation.
- .3 by cost of Work plus CONTRACTOR's fee for all overhead costs and profit (determined as provided in paragraph 11.5).
- .4 No cost will be included in the change order for time spent preparing the change order, nor will costs be included for an estimate of time to negotiate the change order costs for machinery, tools, or equipment as described in subparagraph 11.5.3

11.4.2 Before using the method described in paragraph 11.4.1.3, OWNER and CONTRACTOR agree to negotiate a Change Order using the methods identified in paragraphs 11.4.1.1 and 11.4.1.2, as appropriate, to determine the adjustment in the Contract Amount.

11.5 Cost of Work: If neither of the methods defined in paragraphs 11.4.1.1 nor 11.4.1.2 can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Amount, then the change in the Work will be performed by Change Directive, using the Force Account method, and payment will be made as follows:

11.5.1 For all personnel, CONTRACTOR will receive actual field cost wage rates for each hour that said personnel are actually engaged in such Work, as substantiated by its certified payroll, to which will be added an amount equal to twenty-five percent (25%) of the sum thereof as compensation for CONTRACTOR's total overhead, profit, and small tools. No separate charge will be made by CONTRACTOR or its Subcontractor(s) for organization or overhead expenses. In no case will the rate of wage be less than the minimum shown in the Contract for a particular category. CONTRACTOR will also receive an amount equal to 55% of the wages paid personnel, excluding the 25% compensation provided above, for CONTRACTOR's and any effected Subcontractor's cost of premiums on public liability insurance, workers' compensation insurance, social security and unemployment insurance. The cost for superintendence, project management, and other salaried employees are considered as included in the twenty five percent (25%) total overhead, profit, and small tools mark-up unless considered necessary and ordered by Owner.

- 11.5.2** CONTRACTOR will receive the actual cost, including freight charges, of the materials used and installed on such Work, to which costs will be added a sum equal to twenty-five percent (25%) thereof as compensation for CONTRACTOR's and any affected Subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.
- 11.5.3** For machinery, trucks, power tools, or other similar equipment (the "equipment") agreed to be necessary by OWNER and CONTRACTOR, OWNER will allow CONTRACTOR the Regional and Model Year adjusted Monthly Ownership Cost divided by 176 plus the Hourly Estimated Operating Costs as given in the latest edition of the "Rental Rate Blue Book" as published by EquipmentWatch (1-800-669-3282) for each hour that said equipment is in use on such work. The established equipment rates will be paid for each hour that the equipment is utilized in the Work. In the event that the equipment is used intermittently during the Work, full payment for an eight-hour day will be made if the equipment is not idle more than four (4) hours of the day. If the equipment is idle more than four (4) hours in a day, then payment will be made only for the actual hours worked. No additional compensation will be allowed on the equipment for CONTRACTOR's or any affected Subcontractor's overhead and profit. OWNER may accept an actual rental invoice in lieu of the method of calculation set forth in paragraph 11.5.3 for equipment rented exclusively for Force Account Work or for equipment not included in the Rental Rate Blue Book.
- 11.5.4** For Subcontractors, CONTRACTOR will receive the approved actual invoice cost plus 5% as compensation for CONTRACTOR's total overhead and profit.
- 11.5.5** CONTRACTOR will receive an additional 1% of the total of 11.5.1, 11.5.2, 11.5.3, and 11.5.4 as compensation for increased bond costs.
- 11.5.6** The compensation, as herein provided for, shall be received by CONTRACTOR and any affected Subcontractor as payment in full for work done by Change Directive and will include use of small tools, and total overhead expense and profit. CONTRACTOR and Owner's Representative shall compare records of work done by Change Directive at the end of each day. Copies of these records will be made upon forms provided for this purpose by OWNER and signed by both Owner's Representative and CONTRACTOR, with one copy being retained by OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two (2) working days of presentation does not invalidate the accuracy of the record.

11.6 Unit Price Work:

- 11.6.1** Where the Contract Documents provide that all or part of the Work is to be unit price Work, initially the Contract Amount will be deemed to include for all unit price work an amount equal to the sum of the established unit price for each separately identified item of unit price work times the estimated quantity of each item as indicated in the Bid. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Amount. Determinations of the actual quantities and classifications of unit price work performed by CONTRACTOR will be made by Owner's Representative. Owner's Representative will review with CONTRACTOR the preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).
- 11.6.2** When "plan quantity" is indicated for a Bid item, CONTRACTOR shall be paid amount specified in the Contract Documents without any measurements.

- 11.6.3** Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.
- 11.6.4** A Major Item is any individual Bid item in the Bid that has a total cost equal to or greater than five percent (5%) of the original Contract Amount or \$50,000, whichever is greater, computed on the basis of Bid quantities and Contract unit prices.
- 11.6.5** OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Amount in accordance with Article 11 if:
- .1** the actual quantity of any Major Item should become as much as twenty percent (20%) more than or twenty percent (20%) less than that in the Bid; or
 - .2** CONTRACTOR presents documentation contesting accuracy of "plan quantity" and Owner's Representative verifies quantity and determines original value is in error by five percent (5%) or more;

Provided, however, in the event a Major Item is reduced by twenty percent (20%) or more of the amount in the Bid, no additional Article 11 profit or overhead will be added, if, due to other additions in the Work, the net value of the Contract Amount is not reduced.

ARTICLE 12 - CHANGE OF CONTRACT TIMES

12.1 Working Day and Calendar Day Contracts:

- 12.1.1** The Contract Times (or Milestones) may only be changed by Change Order or Time Extension Request duly executed by both CONTRACTOR and Owner's Representative. Any claim for an adjustment of the Contract Times (or Milestones) shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days after the start of the occurrence or event giving rise to the delay) and stating the general nature of the delay. Notice of the extent of the delay with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed is the entire adjustment to which claimant is entitled as a result of said occurrence or event. If OWNER and CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Times (or Milestones) shall be determined as set out in Article 16. No Claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph.
- 12.1.2** When CONTRACTOR is at fault and OWNER stops the Work, so that corrections in the Work can be made by CONTRACTOR, no extension in time will be allowed.
- 12.1.3** When CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. If performance by the CONTRACTOR or OWNER is interrupted by any occurrence not occasioned by its own conduct, whether such occurrence be an act of god or the result of war, riot, civil commotion, sovereign conduct, or the conduct of a third party, then such performance will be excused for a period of time necessary to remedy its effects, provided, however, in such an

event, a conference will be held within three (3) business days to establish a proposed new Progress Schedule for the Project.

12.1.4 OWNER will consider time extension requests and may grant CONTRACTOR an extension of time because of:

- .1** Changes ordered in the work which justify additional time.
- .2** Failure of materials or products being at the Project site due to delays in transportation or failures of Suppliers, which are not the result of CONTRACTOR's, Subcontractor's or Supplier's negligence. The request for an extension of time shall be supported by a citation of acts demonstrating that the delays are beyond CONTRACTOR's control, including, but not limited to, CONTRACTOR's efforts to overcome such delays documented as follows:
 - a)** Copy of purchase order for delayed item(s) indicating date ordered by CONTRACTOR/ Subcontractor and date purchase order received by Supplier.
 - b)** If item(s) require Shop Drawings or other submittal information in accordance with the Contract Documents, provide record of date submittal(s) forwarded to Owner's Representative, date submittal(s) returned to CONTRACTOR, and date submittal(s) forwarded to Supplier.
 - c)** Copy of document(s) from Supplier, on Supplier's letterhead, indicating date(s) item(s) would be ready for shipment and/or actual shipment date(s).
 - d)** Copies of all correspondence between CONTRACTOR / Subcontractor and Supplier indicating CONTRACTOR / Subcontractor's efforts to expedite item(s).
 - e)** If item(s) are being purchased by a Subcontractor, provide correspondence, meeting notes, etc., that reflect CONTRACTOR's efforts with the Subcontractor to expedite delivery of the item(s).
- .3** When acts of OWNER, E/A, utility owners or other contractors employed by OWNER delay progress of work through no fault of CONTRACTOR. The CONTRACTOR will only be entitled to an extension of time for delays that affect the Critical Path of the Work and that are not caused by the CONTRACTOR.
- .4** When CONTRACTOR is delayed by strikes, lockouts, fires, losses from natural causes, or other unavoidable cause or causes beyond CONTRACTOR's control.

12.2 Calendar Day Contracts:

12.2.1 Under a Calendar Day Contract, CONTRACTOR may be granted an extension of time because of unusual inclement weather, including but not limited to unusual rainfall events, which are beyond the normal rainfall recorded and expected for Austin, Texas. However, the CONTRACTOR will not be granted an extension of time for "normal rainfall", as described below.

12.2.2 "Unusual Inclement Weather" is defined as a rain event or other weather related event which occurs at the site and is of sufficient magnitude to prevent CONTRACTOR from performing units of Work critical to maintaining the Progress Schedule.

12.2.3 Baseline Rain Day Determination. "Normal rainfall" compiled by the State climatologist, based on U.S. Weather Bureau Records for Austin, Texas, is considered a part of the Calendar Day Contract, and is not a justification for an extension of time. Listed below are the number of days in each month for which no compensatory days for rainfall events ("Rain Days") in such months may be claimed:

- January..... 8 days
- February..... 8 days
- March..... 7 days
- April..... 7 days
- May..... 9 days
- June..... 6 days
- July..... 5 days
- August..... 5 days
- September..... 7 days
- October..... 7 days
- November..... 7 days
- December..... 7 days

Rain Days in addition to the baseline Rain Day determination described above will be measured with the Owner's Representative's approval at the nearest operational public weather data collection facility to the site, including but not limited to the OWNER's early warning flood gauge system.

12.2.4 CONTRACTOR may receive credit in any month for Unusual Inclement Weather, and specifically for any Rain Days in that month which exceed the number of Rain Days allocated to that month, if a Claim is made in accordance with paragraph 12.1.1 and the weather event meets the definition for "Unusual Inclement Weather", and as applicable, "Rain Day" and such claimed day is a day on which Work critical to maintaining the Progress Schedule is scheduled to be performed and is otherwise capable of being performed.

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

13.1 Notice of Defects: Prompt notice of all defective Work of which OWNER or E/A has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected or accepted as provided in Article 13. CONTRACTOR must give OWNER and E/A prompt notice of any defective Work of which CONTRACTOR has actual knowledge.

13.2 Access to Work: OWNER, E/A, E/A's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies having jurisdiction will have access to the Work at reasonable times for observing, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access, and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

13.3 Tests and Inspections:

- 13.3.1** CONTRACTOR shall give timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- 13.3.2** OWNER shall employ and pay for services of an independent testing laboratory to perform all inspections, tests or approvals required by the Contract Documents except:
- .1** for inspections, tests or approvals covered by paragraphs 13.3.3 and 13.3.4 below;
 - .2** that costs incurred for tests or inspections conducted pursuant to paragraph 13.4.3 shall be paid as provided in paragraph 13.4.3;
 - .3** for reinspecting or retesting defective Work, including any associated costs incurred by the testing laboratory for cancelled tests or standby time; and
 - .4** as otherwise specifically provided in the Contract Documents.
- 13.3.3** If laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish Owner's Representative the required certificates of inspection or approval.
- 13.3.4** CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and E/A's review of submittals covering materials, equipment, and mix designs to be incorporated in the Work.
- 13.3.5** All testing laboratories shall meet the requirements of ASTM E-329.

13.4 Uncovering Work:

- 13.4.1** If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of Owner's Representative, or if any Work is covered contrary to the written request of Owner's Representative, it must, if requested by Owner's Representative, be uncovered and recovered at CONTRACTOR's expense.
- 13.4.2** Uncovering Work as provided in paragraph 13.4.1 shall be at CONTRACTOR's expense unless CONTRACTOR has given Owner's Representative timely notice of CONTRACTOR's intention to cover the same and Owner's Representative has not acted within five (5) working days to such notice.
- 13.4.3** If Owner's Representative considers it necessary or advisable that covered Work be observed, inspected or tested, CONTRACTOR shall uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Amount, and may make a Claim therefor as provided in Article 11. If,

however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Amount or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and CONTRACTOR may make a Claim therefor as provided in Articles 11 and 12.

13.5 OWNER May Stop the Work:

13.5.1 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers, suitable materials, and/or equipment; or fails to furnish or perform the Work in such a way that the Work in progress or the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

13.5.2 If CONTRACTOR fails to correct defective Work or submit a satisfactory plan to take corrective action, with procedure and time schedule, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until cause for such order has been eliminated, or take any other action permitted by this Contract. A notice to stop the Work, based on defects, shall not stop calendar or working days charged to the Project.

13.6 Correction or Removal of Defective Work: If required by OWNER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Owner's Representative, remove it from the site and replace it with Work that is not defective. CONTRACTOR shall correct or remove and replace defective Work, or submit a plan of action detailing how the deficiency will be corrected, within the time frame identified in the notice of defective Work. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.7 Warranty period:

13.7.1 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents (e.g. paragraph 14.11.2), any Work, including work performed after the Substantial Completion date, is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions:

- (i) correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not defective, and
- (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom.

If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR. The warranty period will be deemed to be renewed and recommenced in connection with the completed items of Work requiring correction.

13.7.2 In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the warranty period for that item may start to run from an earlier date if so provided in the Contract Documents.

13.7.3 If correction of defective Work will affect the function or use of the facility CONTRACTOR shall not proceed with correction of defective Work without prior coordination and approval of OWNER.

13.7.4 The obligations of the CONTRACTOR to perform warranty work will survive the acceptance of the Work and any termination of the Contract.

13.8 Acceptance of Defective Work: If, instead of requiring correction or removal and replacement of defective Work, OWNER decides to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents and compensating OWNER for the diminished value of the defective Work. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER after a calculation by OWNER of the diminution in value of the defective Work.

13.9 OWNER May Correct Defective Work: If CONTRACTOR fails within a reasonable time after Written Notice of OWNER to correct defective Work, or to remove and replace rejected Work, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven (7) calendar days' Written Notice to CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of the Owner's Representative, significant progress has not been made during this seven (7) calendar day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, its agents and employees, OWNER's other contractors, E/A and E/A's consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment:

14.1.1 Within 45 days from when the work was performed by the Contractor and Subcontractors, but not more often than once a month, CONTRACTOR shall submit to Owner's Representative for review an Application for Payment, in a form

acceptable to OWNER, filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

- 14.1.2** Such applications shall not include requests for payment on account of changes in the Work which have been properly authorized by Change Directives but not yet included in Change Orders.
- 14.1.3** Such applications shall not include requests for payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason.
- 14.1.4** If payment is requested on the basis of materials or equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall be accompanied by such bills of sale, data and other procedures satisfactory to OWNER substantiating OWNER's title to such materials or equipment or otherwise protecting OWNER's interest. Payment on account of such materials or equipment will not include any amount for CONTRACTOR's overhead or profit or relieve CONTRACTOR of its obligation to protect and install such materials or equipment in accordance with the requirements of the Contract and to restore damaged or defective Work. If materials or equipment are stored at another location, at the direction of the OWNER they shall be stored in a bonded and insured facility, accessible to E/A and OWNER, and shall be clearly marked as property of OWNER. Title to materials delivered to the site of the Work or a staging area will pass to OWNER upon payment by OWNER without the necessity for further documentation. Risk of loss will not pass to OWNER until acceptance.
- 14.1.5** Where the original Contract Amount is less than \$400,000, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less ten percent (10%) of amount thereof, which ten percent (10%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. Where the original Contract Amount is \$400,000 or more, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less five percent (5%) of amount thereof, which five percent (5%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. In either case, if the Work is near completion and delay occurs due to no fault or neglect of CONTRACTOR, OWNER may pay a portion of the retained amount to CONTRACTOR. CONTRACTOR, at OWNER's option, may be relieved of the obligation to complete the Work and, thereupon, CONTRACTOR shall receive payment of the balance due under the Contract subject to the conditions stated under paragraph 15.2. A Subcontractor may submit a written request to the CONTRACTOR and Project Manager requesting release of retainage for work by the Subcontractor that has been completed and approved. The Project Manager will evaluate the request and if it is approved, the Project Manager will request the CONTRACTOR to include the request for release of an appropriate amount of retainage in the next Pay Application.
- 14.1.6** Applications for Payment shall include the following documentation:
- .1** updated Progress Schedule;
 - .2** monthly subcontractor report;
 - .3** any other documentation required under the Supplemental General Conditions.

14.2 CONTRACTOR's Warranty of Title: CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER free and clear of all Liens no later than the time of payment to CONTRACTOR.

14.3 Review of Applications for Progress Payment:

14.3.1 Owner's Representative will, within seven (7) calendar days after receipt of each Application for Payment, either indicate a recommendation for payment and forward the Application for processing by OWNER, or return the Application to CONTRACTOR indicating Owner's Representative's reasons for refusing to recommend payment. In the latter case, CONTRACTOR shall make the necessary corrections and resubmit the Application.

14.3.2 Owner's Representative's recommendation of any payment requested in an Application for Payment will constitute a representation by Owner's Representative, based upon Owner's Representative's on-site observations of the executed Work and on Owner's Representative's review of the Application for Payment and the accompanying data and schedules, that to the best of Owner's Representative's knowledge, information and belief:

- .1 the Work has progressed to the point indicated; and
- .2 the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for unit price Work, and to any other qualifications stated in the recommendation).

14.3.3 By recommending any such payment, Owner's Representative will not thereby be deemed to have represented that:

- .1 exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work;
- .2 examination has been made to ascertain how or for what purpose CONTRACTOR has used money previously paid on account of the Contract Amount;
- .3 CONTRACTOR's construction means, methods, techniques, sequences or procedures have been reviewed; or
- .4 that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.4 Decisions to Withhold Payment:

14.4.1 OWNER may withhold or nullify the whole or part of any payment to such extent as may be necessary on account of:

- .1 defective Work not remedied;
- .2 third party Claims filed or reasonable evidence indicating probable filing of such Claims;
- .3 failure of CONTRACTOR to make payments properly to Subcontractors for labor, materials or equipment;

- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount;
- .5 damage to OWNER or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- .7 failure of CONTRACTOR to submit a schedule of values in accordance with the Contract Documents;
- .8 failure of CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;
- .9 failure of CONTRACTOR to submit and update a construction Progress Schedule in accordance with the Contract Documents;
- .10 failure of CONTRACTOR to maintain a record of changes on drawings and documents;
- .11 failure of CONTRACTOR to maintain weekly payroll reports and, as applicable, provide copies of reports in a timely manner upon request of OWNER;
- .12 failure of CONTRACTOR to submit monthly subcontractor reports;
- .13 CONTRACTOR's neglect or unsatisfactory prosecution of the Work, including failure to clean up;
- .14 failure of CONTRACTOR to comply with the Austin City Code, Chapter 2-9-A, as amended, "Minority-Owned and Women-Owned Business Enterprise Procurement Program;" or
- .15 failure of CONTRACTOR to comply with any provision of the Contract Documents.

14.4.2 When the above reasons for withholding payment are removed, CONTRACTOR shall resubmit a statement for the value of Work performed. Payment will be made within thirty (30) calendar days of receipt of approved Application for Payment.

14.4.3 Subcontractors may request Partial Payment when the OWNER withholds payment of an invoice to the CONTRACTOR for any reason listed in Section 14.4.1. If payment is withheld by the OWNER, the CONTRACTOR shall notify all affected Subcontractors within two (2) working days of notice that payment is being withheld. Upon notification, Subcontractors may submit a formal written request for Partial Payment to the CONTRACTOR and OWNER. If directed by the OWNER, the CONTRACTOR shall within three (3) working days resubmit to the OWNER an invoice for the same period that includes only the work performed by the requesting Subcontractors during this period. The OWNER will review this resubmitted invoice in accordance with Section 14.3.1. Upon receipt of payment for the resubmitted invoice, CONTRACTOR shall pay the subcontractor within ten (10) Calendar Days in accordance with Section 6.4.7.

14.5 Delayed Payments: Should OWNER fail to make payment to CONTRACTOR of sum named in any Application for Payment within thirty (30) calendar days after the day on which OWNER received the mutually acceptable Application for Payment, then OWNER will pay to CONTRACTOR, in addition to sum shown as due by such Application for Payment, interest thereon at the rate specified in Government Code, Section 2251.025(b) from date due until fully paid, which shall fully liquidate any injury to CONTRACTOR growing out of such delay in payment.

14.6 Arrears: No money shall be paid by OWNER upon any claim, debt, demand or account whatsoever, to any person, firm or corporation who is in arrears to City for taxes; and City shall be entitled to counterclaim and automatically offset against any such debt, claim, demand or account in the amount of taxes so in arrears and no assignment or transfer of such debt, claim, demand or account after said taxes are due, shall affect the right of OWNER to so offset said taxes, and associated penalties and interest if applicable, against the same.

14.7 Substantial Completion:

14.7.1 When the CONTRACTOR considers that the Work, or a portion thereof which the OWNER agrees to accept separately, is substantially complete, the CONTRACTOR shall notify Owner's Representative and request a determination as to whether the Work or designated portion thereof is substantially complete. If Owner's Representative does not consider the Work substantially complete, Owner's Representative will notify CONTRACTOR giving reasons therefor. After performing any required Work, CONTRACTOR shall then submit another request for Owner's Representative to determine Substantial Completion. If Owner's Representative considers the Work substantially complete, Owner's Representative will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final payment, shall establish the time within which CONTRACTOR shall finish the punch list, and shall establish responsibilities of the OWNER and CONTRACTOR for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of CONTRACTOR to complete all Work in accordance with the Contract Documents. If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. The certificate of Substantial Completion shall be signed by OWNER and CONTRACTOR to evidence acceptance of the responsibilities assigned to them in such certificate.

14.7.2 OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER will allow CONTRACTOR reasonable access to complete or correct items on the punch list and complete warranty work.

14.8 Partial Utilization: Use by OWNER, at OWNER's option, of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work in accordance with the following:

14.8.1 OWNER at any time may request CONTRACTOR to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR shall certify to Owner's Representative that such part of the Work is substantially complete and request Owner's Representative to issue a certificate of substantial Completion for that part of the Work. CONTRACTOR at any time may notify Owner's Representative that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Owner's Representative to issue a certificate of Substantial Completion for that part of the Work. The provisions of paragraphs 14.7.1 and 14.7.2 will apply with respect to certification of Substantial Completion

of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.8.2 Such partial utilization is authorized by public authorities having jurisdiction over the Work.

14.9 Final Inspection: Upon Written Notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Owner's Representative will make a final inspection with CONTRACTOR and provide Written Notice of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.10 Final Application for Payment: CONTRACTOR may make application for final payment following the procedure for progress payments after CONTRACTOR has completed all such corrections to the satisfaction of Owner's Representative and delivered the following documents:

14.10.1 Affidavit by CONTRACTOR certifying the payment of all debts and claims;

14.10.2 Three (3) complete operating and maintenance manuals, each containing maintenance and operating instructions, schedules, guarantees, and other documentation required by the Contract Documents;

14.10.3 Record documents (as provided in paragraph 6.10);

14.10.4 Consent of surety, if any, to final payment. If surety is not provided, complete and legally effective releases or waivers (satisfactory to OWNER) of all claims arising out of or filed in connection with the Work;

14.10.5 Certificate evidencing that insurance required by the Supplemental General Conditions will remain in force after final payment and through the warranty period;

14.10.6 Non-Use of Asbestos Affidavit (After Construction);

14.10.7 Subcontractor report and all other documentation necessary for evaluation of CONTRACTOR's fulfillment of the Contract MBE/WBE or DBE goals;

14.10.8 Documentation of notice to claimants, to the extent applicable and subject to subparagraph 14.11.4;

14.10.9 Proof of performance Bond extension through warranty period, if a performance Bond was required; and

14.10.10 Any other documentation called for in the Contract Documents.

14.11 Final Payment and Acceptance:

14.11.1 If, on the basis of observation of the Work during construction, final inspection, and review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Owner's Representative is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled and there are no outstanding claims, Owner's Representative will recommend the final Application for Payment and thereby notify the OWNER, who will pay to CONTRACTOR the balance due CONTRACTOR under the terms of the Contract. If the sole remaining unfinished item to complete the Work is the reestablishment of vegetation, CONTRACTOR may execute a revegetation letter with fiscal posted (letter of credit) to ensure completion of this item. This Work must be accomplished within one hundred twenty (120) Calendar Days of the date of Final Completion of the Work. When

the permanent erosion control has been established, OWNER will initiate an inspection for final acceptance of the erosion controls. If the revegetation is not completed within the one hundred twenty (120) Calendar Days, OWNER, at its option, may complete the Work using the posted fiscal.

- 14.11.2** If the Contract measures Contract Time to Final Completion, rather than Substantial Completion, Owner's Representative will issue a letter of final acceptance to CONTRACTOR which establishes the Final Completion date and initiates the one-year warranty period. If the sole remaining unfinished item to complete the Work is the reestablishment of vegetation and CONTRACTOR has executed a revegetation letter with fiscal posted (letter of credit) to ensure completion of this item, the Owner's Representative will issue a letter of conditional acceptance to CONTRACTOR which established the Final Completion date and initiates the one-year warranty period.
- 14.11.3** Final payment is considered to have taken place when CONTRACTOR or any of its representatives negotiates OWNER's final payment check, whether labeled final or not, for cash or deposits check in any financial institution for its monetary return.
- 14.11.4** The OWNER will withhold funds sufficient to cover the amount of any unresolved contract claims from final payment for six months under the following limited conditions:
- .1** CONTRACTOR must provide written notice to the claimant (via certified mail or hand delivery) that (i) OWNER will hold funds in the amount of the disputed claim for six (6) months from the date of the receipt of the notice and (ii) CONTRACTOR and the claimant have certain alternative dispute resolution rights; and
 - .2** CONTRACTOR must provide OWNER with a copy of the receipted notice.

Provided the claimant has received notice under this section, OWNER will release the withheld funds, if the CONTRACTOR provides a bond in substantial compliance with the provisions of Section 52.231 of the Texas Property Code; when the OWNER receives a settlement or release of the claim with accompanying instructions regarding payment; upon resolution of the claim in litigation, if suit is filed within such six (6) month period and the OWNER receives written notice of such filing; or when such six (6) month period has passed, if no such bond, settlement, release, or notice of filing of suit have been received. The above provisions notwithstanding, if efforts to timely resolve a disputed claim are not being made to OWNER'S reasonable satisfaction, OWNER may, in its complete discretion, file an interpleader action and deposit the withheld funds in the registry of a court of competent jurisdiction. In addition, CONTRACTOR must include a provision in each of its subcontracts that the prevailing party in any litigation arising thereunder will be entitled to recover its costs of court and reasonable attorney's fees.

14.12 Waiver of Claims: The making and acceptance of final payment will constitute:

- 14.12.1** a waiver of claims by OWNER against CONTRACTOR, except claims arising from unsettled claims, from defective Work appearing after final inspection, from failure to comply with the Contract Documents or the terms of any warranty specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and
- 14.12.2** a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.1 OWNER May Suspend Work Without Cause: At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety (90) calendar days by Written Notice to CONTRACTOR which will fix the date on which the Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Amount or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved Claim therefor as provided in Articles 11 and 12.

15.2 OWNER May Terminate Without Cause: Upon seven (7) calendar days' Written Notice to CONTRACTOR, OWNER may, without cause and without prejudice to any right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.2.1 for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;

15.2.2 for reasonable demobilization costs; and

15.2.3 for anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity.

15.3 OWNER May Terminate With Cause:

15.3.1 Upon the occurrence of any one or more of the following events:

- .1 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents;
- .2 if CONTRACTOR disregards laws or regulations of any public body having jurisdiction;
- .3 if CONTRACTOR disregards the authority of Owner's Representative;
- .4 if CONTRACTOR makes fraudulent statements;
- .5 if CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;
- .6 if CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or
- .7 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any) seven (7) calendar days Written Notice terminate the services of CONTRACTOR. OWNER, at its option, may proceed with negotiation with surety for completion of the Work. Alternatively, OWNER may under these circumstances exclude CONTRACTOR from the site and take possession of the Work (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Amount exceeds all claims, costs,

losses and damages sustained by OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses and damage exceed such unpaid balance, CONTRACTOR or surety shall pay the difference to OWNER. In the event that a termination for cause is found to be wrongful, the termination shall be converted to a termination without cause as set forth in Section 15.2 and CONTRACTOR'S remedy for wrongful termination is limited to the recovery of the payments permitted for termination without cause as set forth in Section 15.2.

15.3.2 Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR and surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability. In the event OWNER terminates Contract with cause, OWNER may reject any and all Bids submitted by CONTRACTOR for up to three (3) years after the date of such termination. These sanctions will be administered in accordance with the City of Austin Purchasing Office Probation, Suspension, and Debarment Procedures for Vendors, which include notice and an opportunity for a hearing.

15.4 CONTRACTOR May Stop Work or Terminate: If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) calendar days by OWNER or under an order of court or other public authority, or (except during disputes) Owner's Representative fails to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER fails for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, then CONTRACTOR may, upon seven (7) calendar days' Written Notice to OWNER, and provided OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.2. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) Owner's Representative has failed to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER has failed for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, CONTRACTOR may upon seven (7) calendar days' Written Notice to OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.4 are not intended to preclude CONTRACTOR from making a Claim under Articles 11 and 12 for an increase in Contract Amount or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

15.5 Discretionary Notice to Cure: In its complete discretion, OWNER may, but is not required to, provide a Notice to Cure to CONTRACTOR and its surety to cure an event of default described above and/or an anticipatory breach of contract and, if required by OWNER, to attend a meeting with OWNER, regarding the Notice to Cure, the event of default, and/or the anticipatory breach of contract. The Notice to Cure will set forth the time limit in which the cure is to be completed or commenced and diligently prosecuted. Upon receipt of any Notice to Cure, CONTRACTOR shall prepare a report describing its program and measures to affect the cure of the event of default and/or anticipatory breach of contract within the time required by the Notice to Cure. The CONTRACTOR'S report must be delivered to OWNER at least three (3) days prior to any requested meeting with the OWNER and surety.

15.6 Bankruptcy: If CONTRACTOR declares bankruptcy or is adjudged bankrupt or makes an assignment for the benefit of creditors or if a receiver is appointed for the benefit of creditors or if a receiver is appointed by reason of CONTRACTOR'S insolvency, CONTRACTOR may be unable to perform this Contract in accordance with the Contract

requirements. In such an event, OWNER may demand CONTRACTOR or its successor in interest provide OWNER with adequate assurance of CONTRACTOR'S future performance in accordance with the terms and conditions of the Contract. If CONTRACTOR fails to provide adequate assurance of future performance to OWNER'S reasonable satisfaction within ten (10) days of such a request, OWNER may terminate the CONTRACTOR'S services for cause or without cause, as set forth above. If CONTRACTOR fails to provide timely adequate assurance of its performance and actual performance, OWNER may prosecute the Work with its own forces or with other contractors on a time and material or other appropriate basis and the cost of which will be charged against the Contract balance.

- 15.7 Duty to Mitigate:** In the event of any termination or suspension under this Contract, the CONTRACTOR agrees to and shall take all reasonable actions to mitigate its damages and any and all claims which may be asserted against the OWNER.
- 15.8 Responsibility during Demobilization:** While demobilizing, the CONTRACTOR will take all necessary and reasonable actions to preserve and protect the Work, the site and other property of the OWNER or others at the site.

ARTICLE 16 - DISPUTE RESOLUTION

16.1 Filing of Claims:

16.1.1 Claims arising from the circumstances identified in paragraphs 3.2, 4.1, 4.2.2, 4.2.4, 6.4.2, 6.11.5.2, 6.17, 7.5, 8.6, 9.5, 10.4.2, 13.4.3, 13.8, 13.9, 15.1, 15.2, 15.3, or 15.4, or other occurrences or events, shall be made by Written Notice delivered by the party making the Claim to the other party within thirty (30) calendar days after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered in writing within thirty (30) calendar days after Written Notice of Claim is delivered by claimant and shall represent that the adjustment claimed covers all known amounts and/or extensions of time to which claimant is entitled.

16.1.2 Within thirty (30) calendar days of receipt of notice of the amount of the Claim with supporting data, Owner's Representative and CONTRACTOR shall meet to discuss the Claim, after which an offer of settlement or notification of no settlement offer will be made to claimant. If claimant is not satisfied with the proposal presented, claimant shall have thirty (30) calendar days in which to: (i) submit additional supporting data requested by the other party; (ii) modify the initial Claim; or (iii) request Alternative Dispute Resolution.

16.2 Alternative Dispute Resolution:

16.2.1 If a dispute exists concerning a Claim, the parties agree to use the following procedure prior to pursuing any other available remedies. OWNER reserves the right to include the E/A as a party.

16.2.2 Negotiating with Previously Uninvolved Personnel: Either party may make a written request for a meeting to be held between representatives of each party within fourteen (14) Calendar Days of the request or such later period that the parties may agree to. Each party shall endeavor to include, at a minimum, one (1) previously uninvolved senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. If a previously uninvolved senior level decision maker is unavailable due to the size of the CONTRACTOR'S organization or any other reason, the

CONTRACTOR shall nonetheless provide an appropriate senior level decision maker for the meeting. The purpose of this and any subsequent meetings will be good faith negotiations of the matters constituting the dispute. Negotiations shall be concluded within thirty (30) Calendar Days of the first meeting, unless mutually agreed otherwise. This step may be waived by a written agreement signed by both parties, in which event the parties may proceed directly to mediation as described below.

16.2.3 Mediation:

- .1 If the procedure described in 16.2.2 proves unsuccessful or is waived pursuant to its terms, the parties shall initiate the mediation process. OWNER and CONTRACTOR agree to select within thirty (30) calendar days a mediator trained in mediation skills, to assist with resolution of the dispute. OWNER and CONTRACTOR agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in this agreement prevents the parties from relying on the skills of a person who also is trained in the subject matter of the dispute and/or a contract interpretation expert. Should the parties fail to agree on a mediator within thirty (30) calendar days of initiation of the mediation process, the parties agree to ask the Travis County Dispute Resolution Center to select a qualified individual, which selection shall be binding on the parties.
- .2 Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. The parties hereby agree that mediation, at a minimum, shall provide for (i) conducting an on-site investigation, if appropriate, by the mediator for fact gathering purposes, (ii) a meeting of all parties for the exchange of points of view and (iii) separate meetings between the mediator and each party to the dispute for the formulation of resolution alternatives. The parties agree to participate in mediation in good faith for up to thirty (30) calendar days from the date of the first mediation session, unless mutually agreed otherwise. Should the parties fail to reach a resolution of the dispute through mediation, then each party is released to pursue other remedies available to them.

16.3 Resolution of Disputes between Contractor and Subcontractor or Supplier: If a dispute exists concerning a claim between a CONTRACTOR and a Subcontractor or Supplier, the CONTRACTOR agrees to participate with such Subcontractor and/or Supplier in a process substantially paralleling the steps set out in paragraphs 16.1 and 16.2 above, including the delivery of written notices, submission of supporting data, negotiation with previously uninvolved personnel, and, if such alternative dispute resolution process is unsuccessful, mediation between the parties to the claim. If the CONTRACTOR and Subcontractor or Supplier agreement provides an alternative dispute resolution process, which provides substantially equivalent rights to those set forth herein, it may be followed, unless the CONTRACTOR and affected Subcontractor or Supplier agree to follow the process outlined above. The OWNER is not a party to the alternative dispute resolution process between the CONTRACTOR and Subcontractor or Supplier and will not pay any costs incurred in the process. Each party will be responsible for its own expenses incurred in the process, which will include an equal share of the mediation expenses, unless otherwise determined by the mediator. NOTICE: THE PROCESS SET FORTH HEREIN IS NOT A SUBSTITUTE FOR THE STATUTORY PAYMENT BOND CLAIM PROCESS.

16.4 Claim Calculation:

16.4.1 Delay Claims: The intent of paying for delay damages is to reimburse the CONTRACTOR for actual expense arising out of a compensable delay. No profit or force account markups, other than labor burden, will be allowed for delay claims by the CONTRACTOR seeking reimbursement for expenses arising out of an alleged event of delay. No consequential damages will be allowed to the CONTRACTOR in connection with any claimed delays. If the CONTRACTOR requests compensation for delay damages and the delay is determined to be compensable, then standby equipment costs and project overhead compensation will be based on the duration of the compensable delay and the following:

- .1 Standby equipment costs will not be allowed during periods when the equipment would have otherwise been idle. Standby equipment time will not exceed more than eight (8) hours per twenty-four (24) hour day, forty (40) hours per week, and one hundred seventy-six (176) hours per month. Standby equipment costs will be paid at 50 percent (50%) of the applicable Rental Rate Blue Book rates and calculated by dividing the monthly rate by one hundred seventy-six (176), multiplying the result by the number of standby hours and multiplying that number by the regional adjustment factor and the rate adjustment factor contained in the Blue Book. Operating costs will not be allowed.
- .2 Project overhead will be determined from actual costs that the CONTRACTOR will be required to document. Project overhead is defined as the administrative and supervisory expenses incurred at the work site and will not include home office overhead.

16.4.2 General: Except as limited with respect to delay claims, as set forth above, the criteria set forth in Section 11.4.1 may be used as a basis to calculate an adjustment in the Contract Amount in the resolution of a claim, provided that there will be no compensation for home office overhead.

16.5 MBE/WBE Program Progressive Sanctions: CONTRACTOR is subject to progressive sanctions for failure of CONTRACTOR to comply with Austin City Code, Chapter 2-9A, as amended: "Minority-owned and Women-owned Business Enterprise Procurement Program." Available sanctions for Program violations are set forth in Program rules adopted by the Small and Minority Business Resources Department (SMBR), as amended, and may include the following progressive sanctions for Program violations within a rolling 24-month period: (i) a period of probation for up to six (6) months for the first violation (ii) a period of suspension from bidding for up to 24 months for the second violation, and (iii) a period of debarment for up to five (5) years for the third violation. If the CONTRACTOR engages in more than one of the violations listed below at any given time, OWNER has the discretion to determine whether such actions should be counted as multiple violations of the MBE/WBE Ordinance. Program violations include:

- .1 providing false or misleading information to the OWNER in connection with the submission of a Bid, responses to request for qualifications or Proposals, Good Faith Efforts documentation, post award compliance or other Program operations;
- .2 substituting M/WBE Subcontractors without first receiving approval for such substitutions;
- .3 failure to comply with the approved Compliance Plan without an approved request for a change, an approved Change Order or other approved change to the Contract;
- .4 violation of any other provision of the "Minority-owned and Women-owned Business Enterprise Procurement Program";

- .5 providing false or misleading information to the OWNER in connection with an application for or challenge to certification, recertification or decertification as a MBE/WBE; and
- .6 bid shopping.

The Progressive Sanctions will be administered in accordance with the City of Austin Purchasing Office Probation, Suspension, and Debarment Procedures for Vendors, which includes notice and an opportunity for a hearing.

ARTICLE 17 – MISCELLANEOUS

- 17.1 Venue:** In the event of any suit at law or in equity involving the Contract, venue shall be exclusively in Travis County, Texas and the laws of the State of Texas shall apply to the interpretation and enforcement of the Contract.
- 17.2 Extent of Agreement:** This Contract represents the entire and integrated agreement between the OWNER and CONTRACTOR with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral.
- 17.3 Cumulative Remedies:** The rights and remedies available to the parties are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantees or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. Specifically, the OWNER is not required to only assess liquidated damages, and OWNER may elect to pursue its actual damages resulting from the failure of the CONTRACTOR to complete the Work in accordance with the requirements of the Contract Documents.
- 17.4 Severability:** If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding shall only effect such word, phrase, clause, sentence or provision, and such finding shall not affect the remaining portions of this Contract; this being the intent of the parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.
- 17.5 Independent Contractor:** The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. CONTRACTOR is an independent contractor and CONTRACTOR's services shall be those of an independent contractor. CONTRACTOR agrees and understands that the Contract does not grant any rights or privileges established for employees of OWNER.
- 17.6 Prohibition of Gratuities:** OWNER may, by Written Notice to CONTRACTOR, terminate the Contract without liability if is determined by OWNER that gratuities were offered or given by CONTRACTOR or any agent or representative of CONTRACTOR to any officer or employee of 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 terminated by OWNER pursuant to this provision, OWNER shall be entitled, in addition to any other rights

and remedies, to recover or withhold the amount of the cost incurred by CONTRACTOR in providing such gratuities.

17.7 Prohibition Against Personal Interest in Contracts: No officer, employee, independent consultant, or elected official of OWNER who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of CONTRACTOR shall render the Contract voidable by OWNER.

17.8 OWNER'S Right to Audit:

17.8.1 Records means all records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier of CONTRACTOR, whether paper, electronic, or other media, which are in any way related to performance of or compliance with this Contract, including, without limitation:

- .1 accounting records;
- .2 written policies and procedures;
- .3 subcontract files (including proposals of successful and unsuccessful Bidders, Bid recaps, etc.);
- .4 original estimates and estimating work sheets;
- .5 correspondence;
- .6 Change Order files (including documentation covering negotiated settlements);
- .7 back charge logs and supporting documentation;
- .8 general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends;
- .9 lump sum agreements between CONTRACTOR and any Subcontractor or Supplier;
- .10 records necessary to evaluate: Contract compliance, Change Order pricing, and any Claim submitted by CONTRACTOR or any of its payees; and
- .11 any other CONTRACTOR record that may substantiate any charge related to this Contract.

17.8.2 CONTRACTOR shall allow OWNER'S agent or its authorized representative to inspect, audit, and/or reproduce, or all three, all Records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier, upon OWNER'S written request. Further, CONTRACTOR shall allow OWNER'S agent or authorized representative to interview any of CONTRACTOR'S employees, all Subcontractors and all Suppliers, and all their respective employees.

17.8.3 CONTRACTOR shall retain all its Records, and require all its Subcontractors and Suppliers to retain their respective Records, during this Contract and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to the attention of CONTRACTOR are resolved, or as otherwise required by law, whichever is longer. OWNER'S right to inspect, audit, or reproduce Records, or interview employees of CONTRACTOR or its respective Subcontractors or Suppliers exists during this Contract, and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to CONTRACTOR'S attention are resolved, or as otherwise required by law, whichever is longer, and at

no cost to OWNER, either from CONTRACTOR or any of its Subcontractors or Suppliers that may furnish Records or make employees available for interviewing.

17.8.4 CONTRACTOR must provide sufficient and accessible facilities during its normal business hours for OWNER to inspect, audit, or reproduce Records, or all three, and to interview any person about the Records.

17.8.5 CONTRACTOR shall insert these requirements in each written contract between CONTRACTOR and any Subcontractor or Supplier and require each Subcontractor and Supplier to comply with these provisions.

17.9 Survival: The terms and conditions of this Contract, which contemplate a period of time beyond completion or termination will survive such completion or termination and not be merged therein or otherwise terminated.

17.10 No Waiver: The waiver of any provision of this Contract will not be deemed to be a waiver of any other provision of this Contract. No waiver of any provision of this Contract will be deemed to constitute a continuing waiver unless expressly provided in writing, nor will a waiver of any default be deemed a waiver of any subsequent defaults of the same type. The failure at any time to enforce this Contract, whether the default is known or not, shall not constitute a waiver or estoppel of the right to do so.

17.11 Conditions Precedent to Right to Sue: Notwithstanding anything herein to the contrary, the CONTRACTOR will have at least 90 days to give notice of a claim for damages as a condition precedent to the right to sue on the Contract, subject to the contractual claim and alternative dispute resolution processes set forth herein.

17.12 Waiver of Trial by Jury: OWNER and CONTRACTOR agree that they have knowingly waived the right to trial by jury and have instead agreed that, in the event of any litigation arising out of or connected to this Contract, to proceed with a trial before the court, unless both parties subsequently agree otherwise in writing.

17.13 Contractor Evaluation: The Owner will review and evaluate the Contractor's Work and performance on the Project and provide the Contractor with a written Contractor Evaluation Report in accordance with City of Austin Administrative Rule R161-13.37. Rule R161-13.37 provides an appeal process.

<http://www.austintexas.gov/department/contract-management>

End

Bidding Requirements, Contract Forms and Conditions of the Contract
SUPPLEMENTAL GENERAL CONDITIONS
Section 00810AE

The Supplemental General Conditions contained herein amend or supplement the General Conditions, Section 00700.

ARTICLE 1 – DEFINITIONS

1.11 Contract: Add the following: "This Contract is a requirements-based service contract that contains an indefinite quantity of Work and components of the Work and indefinite delivery dates."

1.12 Contract Amount: Add the following: "The final Contract Amount is equal to the aggregate of all executed Work Assignments not to exceed the amount authorized by Austin City Council."

1.15 Contract Time: Remove and replace with the following (changes to the original text are identified by underlining):

"The number of days allowed as indicated by the need by date on Work Assignment for completion of the Work as defined by the Contract. When any period is referred to in days, it will be computed to exclude the first and include the last day of such period. A day of twenty-four hours measured from midnight to the next midnight will constitute a day."

1.18 Drawings: Add the following: "Drawings for Work Assignments to be completed during this Contract period are not included in the Bid Documents. Drawings for individual Work Assignments will be provided to the CONTRACTOR with Work Assignments throughout the Contract period as Work Assignments are issued on an as-needed basis."

1.20 Engineer/Architect (E/A): Will be identified with each Work Assignment, as applicable.

1.28 Legal Holidays: Remove and replace with the following:

1.28.1 "These holidays are declared official holidays for the City of Austin. If a holiday falls on Saturday, it will be observed on the proceeding Friday; if a holiday falls on Sunday, it will be observed on the following Monday, except for Christmas Eve. The Christmas Eve holiday will be observed only when it falls Monday through Thursday.

The following holidays shall be exempt from "Routine Work" for Contractor.

New Year's Day	January 1
Independence Day	July 4
Memorial Day	Last Monday in May
Labor Day	First Monday in September
Thanksgiving Day	Forth Thursday in November
Christmas Eve	December 24 (Monday through Thursday only)
Christmas Day	December 25

Add the following:

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1.28.4 On the following holidays Contractor may be required to schedule "Routine Work" when requested forty-eight (48) hours in advance by the City's designated representative.

Martin Luther King, JR's Birthday	Third Monday in January
President's Day	Third Monday in February
Juneteenth	June 19
Veteran's Day	November 11
Friday after Thanksgiving	Fourth Friday in November

1.28.5 Time Restrictions: Add the following: "No work shall be carried out at the work site at night, Saturdays, Sundays, or on legal holidays unless prior written approval is received from the City's Project Manager or his designee, or if a declared system emergency or outage is communicated by the City."

Add the following:

1.49.3 Routine Work: Work which occurs Monday through Friday, excluding Saturday Sundays and City holidays.

1.49.4 Hourly Rate Overtime Work: Hours worked by a Contractor employee at the request of the City which are either (1) Hours worked in excess of forty (40) hours per week less unit price overtime hours, or (2) hours of emergency call back work.

1.49.5 Emergency Work: Unscheduled work ordered by the City in response to an electric system disturbance or other unforeseen event requiring the Contractor to mobilize personnel and equipment during normal working hours (periods).

1.49.6 Emergency Call Back Work: Work ordered by the City on an emergency basis in response to an electric system disturbance requiring the Contractor to call out or retain personnel after the normal work period has ceased.

Add the following definitions:

1.51 Work Assignment (also referred to as Work Order): "The OWNER will initiate work under this requirements-based contract as individual Work Assignments. Each individual Work Assignment will define the scope, identify the subcontractors and confirm the Work Assignment Time for the specific Work Assignment to be performed. Given the context of the scope of Work under this Contract and the method of determining the Contract Amount and Work Assignment Time for each Work Assignment, each Work Assignment will be considered to be the equivalent of a negotiated Change Order based upon the unit prices and other applied factors."

1.52 Work Assignment Time: The duration of time to complete each Work Assignment. The Work Assignment Time will be included in each Work Assignment and must be completed within that time. For all Work Assignments not completed within the Work Assignment Time, liquidated damages will be assessed per work or calendar day and will be calculated separately for each Work Assignment.

1.53 Project Manager: The following person is designated as Project Manager with responsibility for this Contract and will act as the contact point between the City and the Contractor during the term of the Contract.

Project Manager: Chad Leingang, Distribution Electrical Supervisor, (512) 505-7144

ARTICLE 2 - PRELIMINARY MATTERS

2.3 Commencement of Contract Time: Notice To Proceed ("NTP"): *Remove in its entirety and replace with the following:*

"The date that the Work Assignment is signed by the OWNER and delivered to the CONTRACTOR with an accompanying Notice to Proceed will be the commencement date for the purposes of the measurement of Work Assignment Time for that individual Work Assignment."

"The OWNER will issue a written NTP (typically a print) for each Work Assignment describing the Work to be performed and the time allowed for the completion of the Work, as described in Section 01010, Summary of Work. CONTRACTOR agrees to commence each Work Assignment within the time set forth in subsequently issued NTP describing such Work Assignment and to finally complete such Work Assignment within the time set forth in such NTP. Work Assignment Time for specific Work Assignments is of the essence and all Work shall be completed within the stated duration of each assignment."

2.4 Before Starting Construction:

Remove 2.4.1 and replace with the following:

"2.4.1 No Work shall be done prior to the preconstruction conference, without OWNER's approval. Before undertaking each part of the Work, CONTRACTOR shall carefully study the Contract Documents to check and verify pertinent figures shown thereon compare accurately to all applicable field measurements. CONTRACTOR shall promptly report in writing to Owner's Representative any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from Owner's Representative before proceeding with any Work affected thereby. CONTRACTOR shall be liable to OWNER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents of which CONTRACTOR knew or reasonably should have known."

Remove 2.4.2.1 and replace with the following (changes to the original text are identified by underlining):

".1 To the extent not sufficiently set forth in the Work Assignment, and as required by OWNER's Representative, a preliminary progress schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work Assignment, including any Milestones specified in the Contract Documents, identifying the critical path for completing the Work, identifying when all Subcontractors will be utilized, and taking into consideration any limitations on Working Hours;"

Add the following:

“2.4.4 Workforce Security Clearance and identification (ID):

.1 Contractors are required to obtain a certified criminal background report with fingerprinting (referred to as the “report”) for all persons performing on the contract, including all Contractor, Subcontractor, and Supplier personnel (for convenience referred to as “Contractor’s personnel”).

.2 The report may be obtained by reporting to one of the below governmental entities, submitting to fingerprinting and requesting the report [requestors may anticipate a two-week delay for State reports and up to a four to six week delay for receipt of a Federal report].

- i. Texas Department of Public Safety for any person currently residing in the State of Texas and having a valid Texas driver’s license or photo ID card;
- ii. The appropriate governmental agency from either the U.S. state or foreign nation in which the person resides and holds either a valid U.S. state-issued or foreign national driver’s license or photo ID card; or
- .iii A Federal Agency. A current Federal security clearance obtained from and certified by a Federal agency may be substituted.

.3 Contractor shall obtain the reports at least 30 days prior to any onsite work commencement.

Contractor also shall attach to each report the project name, Contractor’s personnel name(s), current address(es), and a copy of the U.S. state-issued or foreign national driver’s license or photo ID card.

.4 Contractor shall provide the City a Certified Criminal Background Report affirming that Contractor has conducted required security screening of Contractor’s personnel to determine those appropriate for execution of the work and for presence on the City’s property. A list of all Contractor Personnel requiring access to the City’s site shall be attached to the affidavit.

.5 Upon receipt by the City of Contractor’s affidavit described in (D) above and the list of the Contractor’s personnel, the City will provide each of Contractor’s personnel a contractor ID badge that is required for access to City property that shall be worn at all times by Contractor’s personnel during the execution of the work.

.6 The City reserves the right to deny an ID badge to any Contractor personnel for reasonable cause, including failure of a Criminal History background check. The City will notify the Contractor of any such denial no more than twenty (20) days after receipt of the Contractor’s reports. Where denial of access by a particular person may cause the Contractor to be unable to perform any portion of the work of the contract, the Contractor shall so notify the City’s Contract Manager, in writing, within ten (10) calendar days of the receipt of notification of denial.

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.7 Contractor's personnel will be required to wear the ID badge at all times while on the work site. Failure to wear or produce the ID badge may be cause for removal of an individual from the work site, without regard to Contractor's schedule. Lost ID badges shall be reported to the City's Contract Manager. Contractor shall reimburse the City for all costs incurred in providing additional ID badges to Contractor Personnel.

.8 ID badges to enter and/or work on the City property may be revoked by the City at any time. ID badges must be returned to the City at the time of project completion and acceptance or upon removal of an individual from the work site.

.9 Contractor is not required to obtain reports for delivery personnel, including but not limited to FedEx, UPS, Roadway, or other materials delivery persons, however all delivery personnel must present company/employer-issued photo ID and be accompanied by at least one of Contractor's personnel at all times while at the work site.

.10 The Contractor shall retain the reports and make them available for audit by the City during regular business hours (reference paragraph 17.8 in Section 000, entitled OWNER'S Right to Audit).

Add the following:

2.4.6 Terms of Work Hours

.1 Routine Work: Contractor shall begin work at a time to be determined by the City of Austin and able to report to the work site within forty-five (45) minutes of the beginning work time. Contractor's workweek shall be comprised of either four ten hour periods, (4-10's) or five eight hour periods, (5-8's), or some other combination designated by the City of Austin, which totals forty (40) hours per week. The following guidelines also apply to routine work:

- i. If the City's schedule and deadlines for completion of routine work releases cannot be maintained, additional crews and equipment shall be added to Contractor's work force until such time as scheduled work is within the City's need dates. These additional crews, when required, shall be paid under the existing wage rates or work unit pricing and shall not result in any rate increase to the City of Austin. If at any time, schedule work is not completed by the need date, the Contractor shall concentrate all efforts to that uncompleted work prior to commencing any other work unless approved by the City in writing.
- ii. If Contract crews are unable to work during the week due to inclement weather and have not reached a minimum of thirty-two (32) hours of work time by Friday afternoon, the City may request scheduled routine work to be accomplished on Saturday, if weather permits.

.2 Overtime Rate Hourly Work: Hours worked includes unit basis and hourly rate basis time. A week is defined as Sunday through Saturday. However, Hourly Rate Overtime Work will be applied only to employee overtime hours after unit price overtime hours have been deducted.

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Example 1: A Contractor employee works 10 hours on Monday and Tuesday doing unit work, and the rest of the week on hourly rate work. The 4 hours in excess of the 40-hour week do not qualify for overtime.

Example 2: A Contractor employee works 10 hours on Monday and Tuesday doing unit work, takes 2 hours vacation on Wednesday, and on Thursday and Friday works 10 hours a day on hourly rate work. The employee worked a total of 46 hours and 8 of those hours were after normal work hours. However, only 2 hours qualify for overtime since the 46 hours worked, 4 hours were on unit price work.

Note: Overtime work shall require specific authorization from the City. The Contractor may elect to work extra hours in order to complete certain tasks at the end of the work period or to catch up on scheduled work, however, this will not be considered approved overtime and will not be paid as overtime by the City. In addition, if the Contractor has been assigned unit work with reasonably scheduled completion dates, and because of negligence of the Contractor and no fault of the City, the Contractor is not able to meet the completion schedules, the City may require the Contractor to work outside normal working hours with no premium for overtime in order to catch up on the schedule. The City shall not be liable to Contractor for Overtime rates solely because Contractor may be required to pay its workers overtime under applicable Federal or State Wage and Hour laws.

- .3 Emergency Work: The following guidelines apply to emergency work:
- i. All emergency work will be performed as Non-Standard Work. Emergency work will not be performed using Unit Prices as a Not to Exceed Limit. Work will be Routine Work or as Overtime Hours according to when the hours are worked and as defined.
 - ii. All travel time for employees and equipment to move in and move out shall be billable to the City at Routine Work Hourly Rates.

- .4 Emergency Call Back Work: Contractor shall have required personnel at the emergency work site as soon as possible, and not later than one hour and thirty minutes (1.5 hours) from the time the City directs them to do the work.

The Contractor shall have available at all hours of the day or night sufficient skilled personnel and equipment to perform all functions covered by this contract including safely performing any emergency work during winter storms and severe weather events. A complete and updated list of qualified personnel and equipment shall be provided to the City's Project Manager and Contract Administrator for the specific purpose of contact during emergency situations. Safe and timely completion of any required emergency work by the Contractor is of vital importance to the City. If Contractor fails to promptly supply sufficient skilled personnel and proper equipment, the City may elect not to renew or may terminate this contract.

The following guidelines apply to emergency call back:

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- i. Emergency Call Back Work shall be performed as Non-Standard Work and invoiced at hourly rates. The Hourly Rate Overtime Premium required by Prevailing Wage Rate shall be submitted in the Proposal Form, Section 00300CSP AE. The City must be able to verify time of service for all personnel and equipment used. Unit Pricing shall not be used for Emergency Call Back.
- ii. Verification and/or copies of employee time sheets may be requested on invoice worksheets utilizing the overtime premium.

Remove 2.5 and replace with the following:

2.5 Preconstruction Conference: Prior to commencement of Work, CONTRACTOR must attend a preconstruction conference, with Owner's Representative and others. Additionally, prior to commencement of work, the CONTRACTOR shall host a preconstruction plan conference, for the Subcontractors identified on the originally approved compliance plan, Owner's Representative and others. The CONTRACTOR shall notify all Subcontractors five (5) working days prior to the preconstruction conference. If the CONTRACTOR has included Subcontractors in the initial preconstruction conference, the additional Subcontractor preconstruction conference will not be required.

Remove 2.6 and replace with the following:

2.6 Initially Acceptable Schedules: Unless otherwise provided in the Contract Documents, CONTRACTOR shall obtain approval of Owner's Representative on the Baseline Schedule submitted in accordance with paragraph 2.4.2.1 before the first progress payment will be made to CONTRACTOR. The Baseline Schedule must provide for an orderly progression of the designated portion of the Work to completion within any specified Milestones and Contract Times. Acceptance of the schedule by Owner's Representative will neither impose on Owner's Representative responsibility or liability for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility for such Work. CONTRACTOR's schedule of Shop Drawings and sample submissions must provide an acceptable basis for reviewing and processing the required submittals. CONTRACTOR's schedule of values must conform to the requirements in Section 01010, Summary of Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

Add the following:

"3.1.3 Federal Aid - Assurances: In the event that a Work Assignment is federally funded, the federal contracting provisions set forth in Section 00810A, and any additional requirements from the funding agency, will be required contract provisions and will be part of the Work Assignment for all purposes. The provisions of Section 00810A are intended to supplement and supersede and be controlling over the City's standard 00700 General Conditions and other Contract Document provisions to the extent of any conflict with Section 00810A. The CONTRACTOR/Bidder acknowledges and agrees that CONTRACTOR/Bidder has the obligation to comply with the attached federal-aid assurances

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and contract provisions. This Section 3.1.3 will constitute the CONTRACTOR's/Bidder's accepted proposal and agreement with respect to the attached federal-aid assurances and contract provisions.

In the event of any ambiguity or inconsistency between the Section 00810A federal aid assurances and the Contract Documents, the federal provision will control to the extent consistent with the overall intent of the respective Work Assignment. Notice of a federal award will be specified in the Work Assignment. The prevailing wage rates, Section 00830, will be replaced with the current wage rates at the time of the federal assignment. Additional federal requirements, if applicable, will be provided to CONTRACTOR with the respective Work Assignment. If the CONTRACTOR/Bidder has any questions as to the applicability of a Section 00700 or Section 00810A provision or any federal requirement, the CONTRACTOR/Bidder shall submit a request for information to the OWNER. The OWNER will have three (3) business days in which to respond."

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 Availability of Lands: *Add the following to the end of the paragraph:*

"CONTRACTOR shall contact OWNER's Transportation Department to obtain a Temporary Use of Right-of-Way Permit prior to beginning construction on any sidewalk/driveway or occupying any parking area/meters within the public right-of-ways."

4.4 Hazardous Materials:

Remove 4.4.4. and replace with the following (changes to the original text are identified by underlining):

"Refer to Division 1 provided by Owner for Work Assignments on City property for hazardous material definitions and procedures."

ARTICLE 5 - BONDS AND INSURANCE

"5.3 Insurance:

5.3.1 CONTRACTOR Provided Insurance

5.3.1.1 General Requirements.

- .1** CONTRACTOR shall carry insurance in the types and amounts indicated below for the duration of the Contract, which shall include items owned by OWNER in the care, custody and control of CONTRACTOR prior to and during construction and warranty period.
- .2** CONTRACTOR must complete and forward the Certificate of Insurance, Section 00650, to OWNER before the Contract is executed as verification of coverage required below. CONTRACTOR shall not commence Work until the required insurance is obtained and until such insurance has been reviewed by OWNER. Approval of insurance by OWNER shall not relieve or decrease the liability of CONTRACTOR hereunder and shall not be construed to be a limitation of liability on the part of CONTRACTOR. CONTRACTOR must also complete and

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forward the Certificate of Insurance, Section 00650, to OWNER whenever a previously identified policy period has expired as verification of continuing coverage.

- .3** CONTRACTOR's insurance coverage is to be written by companies authorized to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of B+VII or better, except for hazardous material insurance which shall be written by companies with A.M. Best ratings of A- or better.
- .4** All endorsements naming the OWNER as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall indicate: City of Austin, Capital Contracting Office, P.O. Box 1088, Austin, Texas 78767.
- .5** The "other" insurance clause shall not apply to the OWNER where the OWNER is an additional insured shown on any policy. It is intended that policies required in the Contract, covering both OWNER and CONTRACTOR, shall be considered primary coverage as applicable.
- .6** If insurance policies are not written for amounts specified below, CONTRACTOR shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.
- .7** OWNER shall be entitled, upon request and without expense, to receive certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.
- .8** OWNER reserves the right to review the insurance requirements set forth during the effective period of this Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by OWNER based upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as CONTRACTOR.
- .9** CONTRACTOR shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract.
- .10** CONTRACTOR shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. All deductibles or self-insured retentions shall be disclosed on the Certificate of Insurance.
- .11** CONTRACTOR shall provide OWNER thirty (30) days written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicated within the Contract.
- .12** If OWNER owned property is being transported or stored off-site by CONTRACTOR, then the appropriate property policy will be endorsed for transit and storage in an amount sufficient to protect OWNER's property.

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- .13** The insurance coverages required under this contract are required minimums and are not intended to limit the responsibility or liability of CONTRACTOR.
- .14** If any required insurance is written on a claims-made basis, the Certificate of Insurance shall state that the coverage is claims-made and the retroactive date shall be prior to or coincident with the date of the Contract and the coverage continuous and shall be provided for 24 months following the completion of the Contract.

5.3.1.2 Business Automobile Liability Insurance. Provide coverage for all owned, non-owned and hired vehicles. The policy shall contain the following endorsements in favor of OWNER:

- a) Waiver of Subrogation endorsement CA 0444;
- b) 30 day Notice of Cancellation endorsement CA 0244; and
- c) Additional Insured endorsement CA 2048.

Provide coverage in the following types and amounts:

.1 A minimum combined single limit of \$2,000,000 per occurrence for bodily injury and property damage.

5.3.1.3 Workers' Compensation And Employers' Liability Insurance. Coverage shall be consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Section 401). CONTRACTOR shall assure compliance with this Statute by submitting two (2) copies of a standard certificate of coverage (e.g. ACCORD form) to Owner's Representative for every person providing services on the Project as acceptable proof of coverage. The Certificate of Insurance, Section 00650, must be presented as evidence of coverage for CONTRACTOR. CONTRACTOR's policy shall apply to the State of Texas and include these endorsements in favor of OWNER:

- a) Waiver of Subrogation, form WC 420304; and
- b) 30 day Notice of Cancellation, form WC 420601.

The minimum policy limits for Employers' Liability Insurance coverage shall be as follows:

.1 \$1,000,000 bodily injury per accident, \$1,000,000 bodily injury by disease policy limit and \$1,000,000 bodily injury by disease each employee.

5.3.1.4 Commercial General Liability Insurance. The Policy shall contain the following provisions:

- a) Blanket contractual liability coverage for liability assumed under the Contract and all contracts relative to this Project.
- b) Broad form property damage.
- c) Completed Operations/Products Liability for the duration of the warranty period.
- d) Explosion, Collapse and Underground (X, C & U) coverage.
- e) Independent Contractors coverage.
- f) Aggregate limits of insurance per project, endorsement CG 2503.

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- g) OWNER listed as an additional insured, endorsements CG 2010 and CG 2037 or equivalent.
- h) 30 day notice of cancellation in favor of OWNER, endorsement CG 0205.
- i) Waiver of Transfer of Recovery Against Others in favor of OWNER, endorsement CG 2404.

Provide coverages A&B with minimum limits as follows:

.1 A combined bodily injury and property damage limit of \$5,000,000 minimum per occurrence and \$5,000,000 minimum aggregate.

5.3.1.5 Professional Liability Insurance. For Work which requires professional engineering or professional survey services to meet the requirements of the Contract, including but not limited to excavation safety systems, traffic control plans, and construction surveying, the CONTRACTOR or Subcontractors, responsible for performing the professional services shall provide Professional Liability Insurance with a minimum limit of \$2,000,000 per claim and in the aggregate to pay on behalf of the assured all sums which the assured shall become legally obligated to pay as damages by reason of any negligent act, error, or omission committed with respect to all professional services provided in due course of the Work of this Contract. CONTRACTOR's policy shall include the following endorsement in favor of the OWNER:

5.3.1.6 Environmental Impairment/Pollution Liability Insurance: with a minimum limit of \$2,000,000 per claim to pay on behalf of the insured all sums which the insured shall become legally obligated to pay as damages ***including bodily injury; property damage, cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims*** by reason of sudden and accidental or non-sudden and accidental pollution arising out of the transportation, storage, or permanent disposal of hazardous and non-hazardous wastes, including wastes subject to the Toxic Substances Control Act (TSCA).

.1 With respect to sudden and accidental occurrences, all Contractors and/or Subcontractors who own or operate a treatment, storage and disposal facility must demonstrate financial responsibility for bodily injury and property damage to third parties ***and clean-up costs*** of at least \$2,000,000 per occurrence.

.2 With respect to non-sudden and accidental occurrences, all Contractors and/or Subcontractors who own or operate a surface impoundment, landfill or land treatment facility that is used to manage hazardous wastes, including wastes subject to the Toxic Substances Control Act (TSCA), must demonstrate financial responsibility for bodily injury and property damage to third parties and ***clean-up costs*** of at least \$2,000,000 per occurrence. The amounts of coverage must be exclusive of legal defense costs.

Insert the following paragraph:

5.3.1.7 Railroad Protective Liability insurance with broad form coverage, with Railroad Owner listed as an additional named insured, with coverage as follows:

.1 Minimum combined single limit of \$5,000,000 per occurrence for bodily injury and property damages and a minimum of \$5,000,000 aggregate.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.2 Labor, Materials and Equipment

Remove 6.2.2 and replace with the following:

6.2.2 Unless otherwise specified in Section 01010, Summary of Work, CONTRACTOR shall provide and pay for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.6 Permits, Fees and Notification of Entry: *Add the following:*

6.6.1 Right of Way Permits: The Owner may require Contractor to obtain Right of Way permits for the work, which the Contractor is assigned. The actual cost of the permit and the cost to obtain the permit, including fees, the actual time spent actively obtaining the permit, one time inspection fees, and vehicle cost, shall be billable to the Owner, with no markup, subject to the terms and conditions in the Contract documents. Any fees for re-inspection shall not be billable. Invoices for permits and one-time inspection fees shall be attached to the final invoice for CI (contractor invoicing) billings.

6.6.2 Permits for Street Cuts and Environmental Permits: The Owner may require Contractor to obtain permits for street cuts, and environmental permits for the work, which he is assigned. The actual cost of the permit and the cost to obtain the permit, including fees, the actual time spent actively obtaining the permit, one time inspection fees, and vehicle cost, shall be billable to the Owner, with no markup, subject to the terms and conditions in the Contract documents. Any fees for re-inspection shall not be billable. Invoices for permits and one-time inspection fees shall be attached to the invoice for CI billings.

6.6.3 Other Permits: Contractor shall obtain any permits required by the Municipal, State, or Federal Government, including, but not limited to, permits for construction equipment passing along or across public or private roads, and State or County Right of Way Construction Permits. The actual cost of the permit, provided it is for actual construction of the projects assigned the Contractor, shall be billable to the Owner, with no markup, subject to the terms and conditions in the Contract documents. However, if required, time spent obtaining the permit, vehicle cost, or other costs, shall not be billable to the Owner. Invoices for permits shall be attached to the invoice for CI billings.

6.6.4 Notification: When normal work entails entry on or across private property, by Project Manager or their designee, Contractor shall notify affected property owners of anticipated work a minimum of forty-eight (48) hours in advance of beginning such work. If construction work is to be performed on a customer's property or on the Right of Way adjoining a customer's property, that customer shall be notified by the Contractor no less than twenty-four (24) hours in advance. The above notification shall be done by Contractor's personnel in a written fashion acceptable to the Owner. The cost of notification shall not be included as part of the unit prices, however, the time required to perform the notification will be billable as Non-Standard Hourly Work if it is performed by billable personnel.

6.6.5 Site Development Permit.

6.6.6 Building Permit(s). OWNER's responsibility for obtaining and paying for the Building Permit(s) shall be limited to the following where applicable: the required Electrical Service (Aid of Construction) Fee, Water and Wastewater Tap Fees, Water and Wastewater Capital Recovery Fees, and Septic Permit Fee. The OWNER's responsibility for obtaining and paying for the Building Permit(s) excludes securing and paying for the following where applicable: Electrical Permit, Mechanical Permit, Plumbing Permit, Water Engineering Inspection Fee, Temporary Use of Right-of Way Permit, the gas company's Gas Yard Line Contribution Fee, and any other permits/fees not listed above.

6.9. Use of Premises:

Remove 6.9.1 and replace with the following (changes to the original text are identified by underlining):

6.9.1 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents as authorized by Owner and other land and areas permitted by laws and regulations, right-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of or in connection with the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. **CONTRACTOR shall indemnify, defend and hold harmless OWNER, E/A, E/A'S Consultants and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including court costs and reasonable attorney's fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the work or failure to perform the Work.**

6.10 Record Documents: *Remove and replace with the following:*

CONTRACTOR shall maintain in a safe place at the site, or other location acceptable to OWNER, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.5) in good order and annotated to show all changes made during construction. These record documents together with all final samples and all final Shop Drawings will be available to OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, these record documents, samples and Shop Drawings shall be promptly delivered to Owner's Representative.

6.11 Safety *Add the following:*

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6.11.3.6 Drugs and Alcohol: Contractor shall comply with drug and alcohol testing requirements as required by Federal and State Departments of Transportation.

6.11.3.7 City's Authority to Stop Work: If at any time City deems Contractor's work, equipment, procedures, or personnel pose an imminent danger to life, property, and/or safety of any person, City reserves the right to stop the Contractor's work until safety is restored. Unless City is clearly in error and Contractor's work presents no safety risk, any lost time on the part of Contractor's employees or equipment shall not be billable to the City.

6.11.3.8 Employee Training Record: If question(s) arise regarding the qualifications of Contractor's or Subcontractor's employee to perform a given task, Contractor shall present to City appropriate documentation of employee's training and qualifications. City reserves the right to require Contractor to reassign the subject employee until qualifications are verified. If after the City's review, the training and qualification documentation presented does not support the employee in the position they are fulfilling, the Contractor shall immediately reassign or remove such worker from City's work. Employee reassignment requires City's consent.

6.11.3.9 OSHA Annual Incident Rate: Contractor shall maintain safety records and accurately report their OSHA Annual Incident Rate to City's Contract Compliance Manager on a quarterly basis. This data shall represent the performance of only the Contractor's personnel assigned to the City's work, and not the Contractor's whole company.

6.11.3.10 Contractor shall supply documentation for each piece of supplied equipment stating its condition for safety, ability to perform the work function designed for, date of construction, and maintenance record. The first submittal of the Equipment Documentation shall occur prior to the first work assignment and on the anniversary date of the Contract award date. Should a piece of equipment be retired or removed from the master equipment list, the Contractor shall submit documentation called for under this section for the replacement equipment. The Contractor and Owner's representative shall review the list together in the field to verify the equipment's availability, useability and compliance to the required documentation. Equipment built prior to 2005, shall require certification for use and safety from a company authorized to certify the equipment and shall be re-certified every two (2) years prior to the anniversary date of the last certification. Copies of that certification shall be supplied to the Contract Compliance Manager. Other equipment aging more than 10 years during the life of the Contract shall be subject to the same certification described above.

6.11.5 Emergencies: Remove and replace with the following:

.1 In emergencies affecting the safety or protection of persons or the Work at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. CONTRACTOR shall give Owner's Representative telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner's Representative determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Order will be issued to document the consequences of such action; otherwise, OWNER will not be responsible for CONTRACTOR's emergency action.

6.11 Safety and Protection: *Add the following:*

6.11.9 Working on or Near Energized Equipment – ARC Flash Protection.

Contractor's employees shall wear at all times the proper personal protective equipment and clothing required for the head, face, torso, arms, hands, and lower body that provides a minimum Arc Thermal Protection Value (ATPV) of 12 calories per square centimeter (cal/cm²) when working on or near energized electrical equipment, or greater, if required by the NFPA Standard 70E and/or Article 410 of the NESC for the work being performed.

6.19 Contractors Business Continuity Plan: *Add the following:*

Should the Contractor be damaged during a disaster, the Contractor shall maintain a Business Continuity Plan to ensure additional personnel and equipment will be brought to the City to respond to the City's emergency situation and assist in the repair and work necessary to meet the demands of the disaster either natural or manmade. The Contractors Business Continuity Plan shall become a part of this Contract and the necessary contacts, phone numbers and availability of personnel and equipment shall be provided Post Award, as required by Owner.

6.20 Austin Energy Network and Systems Access: *Add the following:*

Contractor shall comply with Austin Energy's Network Connection Agreement (00810AE Attachment 1). Contractor shall submit Austin Energy's Remote Access Request Form for each Contractor or Subcontractor employee requiring access to the Austin Energy Network.

6.21 Confidentiality: *Add the following:*

Contractor may require access to certain of the City's and/or its licensors' confidential information (including inventions, employee information, trade secrets, confidential know-how, confidential business information, and other information which the City or its licensors consider confidential) (collectively, "Confidential Information"). Contractor acknowledges and agrees that the Confidential Information is the valuable property of the City and/or its licensors and any unauthorized use, disclosure, dissemination, or other release of the Confidential Information will substantially injure the City and/or its licensors. The Contractor (including its employees, subcontractors, agents, or representatives) agrees that it will maintain the Confidential Information in strict confidence and shall not disclose, disseminate, copy, divulge, recreate, or otherwise use the Confidential Information without the prior written consent of the City or in a manner not expressly permitted under this Agreement, unless the Confidential Information is required to be disclosed by law or an order of any court or other governmental authority with proper jurisdiction, provided the Contractor promptly notifies the City before disclosing such information so as to permit the City reasonable time to seek an appropriate protective order. The Contractor agrees to use protective measures no less stringent than the Contractor uses within its own business to protect its own most valuable information, which protective measures shall under all circumstances be at least reasonable measures to ensure the continued confidentiality of the Confidential Information.

6.22 Austin Energy Data Handling Controls: *Add the following:*

Contractor shall comply with Austin Energy's Data Handling Controls (00810AE Attachment 2).

ARTICLE 8 - OWNER'S RESPONSIBILITIES

Remove 8.2 and replace with the following:

8.2 OWNER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto. OWNER is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to furnishing or performing the Work. OWNER is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of OWNER to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract. CONTRACTOR shall immediately notify OWNER in writing of any action taken or direction given by OWNER that CONTRACTOR believes interferes with, or may interfere with, the CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto.

ARTICLE 10 – CHANGE IN THE WORK:

10.1 Changes: *Remove and replace with the following:*

10.1.1 Without invalidating the Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such changes in the Work will be authorized by Change Order or Field Order. In the event that the OWNER and the CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another contractor and such work will be considered "Other Work" in accordance with Article 7.

10.1.2 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and CONTRACTOR shall proceed promptly, unless otherwise provided in the Change Order or Field Order. CONTRACTOR's proposals for changes in the Contract Amount and/or Contract Time shall be submitted within ten (10) Calendar Days of request by Owner's Representative, including impacts to the approved Progress Schedule, unless Owner's Representative grants an extension. OWNER will review each proposal and respond to CONTRACTOR within ten (10) Calendar Days. After review by OWNER, CONTRACTOR shall provide any supporting data requested by Owner's Representative within seven (7) Calendar Days, unless Owner's Representative grants an extension. OWNER will determine within seven (7) Calendar Days whether to pursue the change in Work.

10.1.4 Except in the case of an emergency as provided in paragraph 6.11.5, a Change Order is required before CONTRACTOR commences any activities associated with a change in the Work which, in CONTRACTOR 's opinion, will result in a change in the Contract Amount and/or Contract Times.

10.3 Change Directives: *Delete 10.3 in its entirety*

Add the following:

10.6 Actual Quantities:

This Contract is a requirements-based contract. Final quantities of materials and items of Work will vary depending upon the subsequently issued Work Assignments and actual conditions encountered through the term of the Contract. The Contract Amount is not a guarantee of an amount of available Work. The amount of Work will be dependent upon subsequently issued Work Assignments and actual site conditions. The quantities in the 00300CSP AE Proposal Form are for bidding purposes only. Actual quantities used are not subject to change order. The optional terms are dependent upon funding by the City of Austin City Council for each year. In addition, the actual quantities to be used are unknown and depend upon actual site conditions and quantities of specific items will vary from those used in the proposal. CONTRACTOR will accept and perform the quantities of Work necessary to complete individual Work Assignments, as determined by the OWNER.

ARTICLE 11 - CHANGE OF CONTRACT AMOUNT

Delete 11.2 in its entirety

11.4.1 Determination of Value of Work:

Remove the following:

“.3 by cost of Work plus CONTRACTOR's fee for all overhead costs and profit (determined as provided in paragraph 11.5).”

Add the following to paragraph to the end of the list:

“.5 Contract Extension Price Adjustment:

The OWNER may exercise its option by notice to the successful bidder/CONTRACTOR prior to the expiration of the initial term. The unit prices bid by the successful bidder/CONTRACTOR shall remain firm throughout the first twelve (12) months of the Contract. Proposal prices may be adjusted for the Contract extension on the basis of an increase or decrease of the existing prices upwards or downwards in accordance with the indices stated in the Category Unit Prices.

In most cases an index from the Bureau of Labor Standards (BLS) will be utilized; however, if there is more appropriate, industry recognized standard, then that index may be selected. If the requested adjustment is not supported by the referenced index, the City, at its sole discretion, may consider approving an adjustment on fully documented market increases.

The adjusted prices will be included in a change order and will remain firm throughout the Contract extension period. Upon receipt of the notice of the exercise of the option for an additional contract term by the OWNER, the CONTRACTOR must request a Proposal price adjustment in writing or the then current Proposal prices will remain in force and effect.

The prevailing wage rates, Section 00830, will be replaced at the time of an adjusted price increase with the then current prevailing wage rates.

“.6 The OWNER reserves the right to not offer an extension within sixty (60) days of the end of the contract term.”

11.5 Cost of Work: Remove and replace with the following:

If neither of the methods defined in paragraphs 11.4.1.1 nor 11.4.1.2 can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Amount, then the change in the Work will be performed by using the Force Account method, and payment will be made as follows:

Remove and replace with the following:

11.5.4 For Subcontractors, other than what is outlined in the Proposal Form, Section 00300CSP AE for Specialty Services, CONTRACTOR will receive the approved actual invoice cost plus 5% as compensation for CONTRACTOR's total overhead and profit

Remove and replace with the following:

11.5.6 : The compensation, as herein provided for, shall be received by CONTRACTOR and any affected Subcontractor as payment in full for work done and will include use of small tools, and total overhead expense and profit. CONTRACTOR and Owner's Representative shall compare records of work done at the end of each day. Copies of these records will be made upon forms provided for this purpose by OWNER and signed by both Owner's Representative and CONTRACTOR, with one copy being retained by OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two (2) working days of presentation does not invalidate the accuracy of the record.

Unit Price Work: Delete 11.6.1, 11.6.4, and 11.6.5 and replace with the following:

"11.6.1 While the Contract Documents provide that all or part of the Work is to be unit price Work, quantities used in 00300CSP AE are indefinite, and are therefore not guaranteed, and are solely for the purpose of the evaluation and comparison of bids. Determinations of the actual quantities and classifications of unit price work performed by CONTRACTOR will be made by OWNER's Representative. OWNER's Representative will review with CONTRACTOR the preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise)."

"11.6.4 Except as otherwise provided at the exercise of an additional two-year option term, neither the OWNER nor CONTRACTOR may make any claim for adjustment in unit prices for differences in actual quantities relative to the bid quantities."

"11.6.5 Deleted."

ARTICLE 12 - CHANGE OF CONTRACT TIMES

Delete 12.1.3 and replace with the following (changes to the original text are identified by underlining):

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When CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, CONTRACTOR shall leave jobsite and OWNER will reimburse CONTRACTOR for the actual hours worked on the jobsite. An extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. If performance by the CONTRACTOR or OWNER is interrupted by any occurrence not occasioned by its own conduct, whether such occurrence be an act of god or the result of war, riot, civil commotion, sovereign conduct, or the conduct of a third party, then such performance will be excused for a period of time necessary to remedy its effects, provided, however, in such an event, a conference will be held within three (3) business days to establish a proposed new Progress Schedule for the Project.

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

13.7 Warranty Period:

Add the following:

"13.7.5 OWNER will utilize a "Warranty Item Form" (attached at the end of this Section) for the purpose of providing Written Notice of warranty defects to CONTRACTOR. CONTRACTOR shall date, sign, complete and return the form to OWNER when the defect is corrected, including such information on or attached to the form to describe the nature of the repairs or corrections that were made. If the defect cannot be corrected in seven (7) Calendar Days, CONTRACTOR shall provide a written explanation to the OWNER's Representative describing the repairs needed and the time required completing the repairs."

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment:

14.1.1 Remove and replace with the following:

CONTRACTOR shall submit to Owner's Representative for review an Application for Payment, in a form acceptable to OWNER, filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

14.1.2 Remove and replace with the following:

Such applications shall not include requests for payment on account of changes in the Work which have been properly authorized but not yet included in Change Orders.

Delete the following: 14.1.5

Delete the following: 14.1.6.1

Add the following:

"14.1.6.2

.1 The contractor must submit a monthly Subcontract Awards and Expenditures Report via email no later than the tenth calendar day of each month to the following:

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- a. Chad Leingang:
Chad.Leingang@austinenergy.com
- b. Amelie Gonzalez-Flores:
Amelie.Gonzalez-Flores@austinenergy.com
- c. SMBR Compliance:
SMBRComplianceDocuments@austintexas.gov

Add the following:

“.6.4 Contractor Invoices and Payment”

“The City of Austin (dba Austin Energy) reserves the right to modify or change the invoicing process for work under this Contract. The changes in software and upgrades in Contractor Invoicing and Maximo may require a change in process or a change in software to be utilized by Austin Energy and/or the Contractor. Therefore, the processes listed may require modification, change or replacement and Austin Energy will work with the Contractor to minimize the impact on both the City and the Contractor should that occur. A minimum of thirty (30) days’ notice will be given to the Contractor should any change in the invoice and payment process occur.

.1 Invoices shall contain a unique invoice number and the information required in Section 00700, Article 14, PAYMENTS TO CONTRACTOR AND COMPLETION. Invoices received without all required information cannot be processed and will be returned to the vendor. In addition, all other proper invoices, other than those mentioned in the previous sentence, received by the City will be paid within thirty (30) calendar days of the City’s receipt of the deliverables or of the invoice, whichever is later.

Invoices should be emailed to the below address:

	City of Austin
Department	TBD
Email Address	TBD

.2 The Contractor agrees to accept payment either by, credit card, check or Electronic Funds Transfer (EFT) for all goods and/or services provided under the Contract. The Contractor shall factor the cost of processing credit card payments into the Offer. There shall be no additional charges, surcharges, or penalties to the City for payments made by credit card.

.3 The Contractor shall meet with the City not less than one month prior to the start work date to review invoicing and reporting processes and formats. To the extent possible, these processes and formats will be mutually agreed upon. However, the City's requirements must be met as a minimum.

.4 Contractor shall capture the following job information for each work assignment by the City to the Contractor for each construction project: activity, job address, work request number (provided by City), dates work

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performed, (City's) inspector name, bid units worked, quantity per bid unit, submittal date.

.5 Upon completion of each work assignment, Contractor will provide the job information via one of two delivery methods;

- (i) Create an electronic text file (in a predefined format by the City) and upload the text file into the shared web application developed and hosted by the City; Or
- (ii) Perform direct data entry into shared web page developed and hosted by the City. The City will assign a unique worksheet ID for each job received. The Contractor shall correct any system validation errors prior to submitting the worksheets to the City.

.6 City will verify the job information provided by Contractor. If the data entered contains no errors; it will be accepted by the City and given the Approved status. If the job information contains errors, it will not be accepted by the Inspector and the City will communicate the errors to the Contractor. In this event, the Contractor will correct and resend the job information using one of the delivery methods discussed in (.5) above.

.7 Documentation for jobs containing Specialty Service Work, Material, or Equipment Rental must be reviewed by City's Inspector for verification prior to submittal to the City. Documentation requiring Specialty Services, Material, or Equipment Rental invoicing will remain in the Review status pending the City's receipt of all outstanding charges. Such documentation shall include, but not be limited to, invoices for material and equipment, Specialty Services report on work performed and completed, and any other requested documentation relative to the service provided. Final verification and acceptance of the documentation supplied to the City's Inspector as noted in (.5) above shall occur prior to processing for payment.

.8 The City will consolidate all invoices with an Approved status and group these into a Batch, typically on a weekly basis.

.9 The City will generate a Batch Detail Report for Contractor's review and reconciliation. This report will be made available on the shared web page. Each Batch Detail Report will be grouped by individual worksheets (individual work requests) and show the total invoice amount that will be paid based upon the job information submitted by the Contractor. For those Batch Detail Reports that are deemed acceptable by the Contractor, the Contractor shall approve the batch online. Any errors discovered by the Contractor during their review, must be forwarded to the City's Contract Management Representative or designee in writing for review and possible correction. Individual Worksheets within the Batch Detail Report that are identified as possessing an error may be deleted from the original Batch Detail Report. Once resolved, the Contractor must create a replacement worksheet and resubmit it for payment on the next batch. When a batch is approved, the Contractor shall prepare and send a Master Invoice (on their letterhead with their correct remittance address, date, batch number, total amount and City's address) to the City. The City processes and closes the batch and then forwards the Master invoice to the City's Payments Section for payment authorization.

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Changes cannot be made to a closed invoice batch, nor can the payment method associated with a work request be changed if the invoice worksheet is in a closed invoice batch.

.10 Reference 00810AE Attachment 3 for specific information regarding the Austin Energy Invoice Process, Invoice Data Field Information Requirements, and a Sample Text File.

.11 Worksheet File/Work Entry Process & Schedule—Work releases may be processed for work completed weekly. Immediately after Contractor's review and verification to the correctness of the Batch Invoice Report, the Contractor shall approve the batch and provide City with a Master Invoice in order for City to proceed in making a payment. Contractor's review of the Batch Invoice, Acceptance Acknowledgement, and issuance of their Master Invoice shall be performed in a timely manner but in no circumstances later than seven (7) business days from final approval of the Batch Invoice Report.

.12 Contractor's Upload of Worksheet Files or Key Entry thereof—Contractor shall either upload or manually enter individual project work sheet data files into City's Contractor Invoice Application no later than 20 calendar days after final completion of the individual work release. If after the close of business on the 20th day, Contractor has not submitted the required information into the City's system and has not notified the City in writing as to the reason for the delay, the City may request, and Contractor agrees to a performance credit in the amount of 25% from the total amount owed.

.13 Contractor's Resubmittal of Corrected Worksheets – Contractor shall correct and resubmit worksheets into the City's Contractor Invoice Application no later than five (5) business days after the worksheet has been returned by Austin Energy.

.14 Rounding of Invoice Hours—Hours shall be recorded to the nearest quarter hour (15 minutes). Calculation shall be made by rounding up if the actual time is 7.5 minutes or more into the next quarter hour or rounding down if actual time is less than 7.5 minutes into the next quarter hour.

.15 Work Must be Authorized—Upon Contractor's receipt of their Notice-to-Proceed from the Contract Manager, all work assigned thereafter to the Contractor shall be authorized either in writing or verbally by the Project Manager or designee Any expenses incurred by Contractor for projects which have not been so authorized, shall not be billable to the City.

.16 In addition to any other rights, the City may withhold payment on any invoice in whole or in part as necessary to protect the City against costs, expenses, or liability attributable to any disincentive payments incurred by the Contractor.

.17 The City reserves the right to modify this process and/or implement a new process with thirty (30) days' written notice to Contractor.

.18 PROCESS FOR LUMP SUM PROJECTS NOT USING CONTRACTOR INVOICING WILL BE SUBMITTED AS FOLLOWS:

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1. The Contractor will be issued a Delivery Order from OWNER containing Austin Energy's work request number for a lump sum project. The Contractor will not proceed with work on the project prior to receiving the Delivery Order. Upon completion and acceptance of the work, the Contractor shall submit a separate invoice in duplicate to Austin Energy for the assigned work.

2. Proper Invoices must include a unique invoice number, Location, Job address, work request number (provided by City), dates work performed, (City's) inspector name, Rate Sheet units worked (including man-hour and equipment), quantity per unit, and submittal date. Upon completion of each job, Contractor will submit the invoices electronically to the assigned Point of Contact (POC), or their assignee for processing. The Contractor's name, remit address, and, if applicable, tax identification number on the invoice must exactly match the information in the Vendor's registration with the City.

3. Invoicing Hourly Rates will be done for approved projects that are mutually agreed between the City of Austin and the Contractor only. The Contractor will provide the following information for these types of projects.

- a. Equipment shall be specific to type of equipment and personnel shall be specific to the actual craft provided.
- b. Employee reporting may be made by submitting time sheet documents, provided such documents shows the Delivery Order and Work Request numbers to which the employee's time was charged and shows the actual level at which work was performed.
- c. Time which is invoiced for labor shall be limited to hours actually worked and for attending safety meetings. Non billable time for personnel shall include but not be limited to sick time, vacation, personal leave, time at lunch, time spent maintaining equipment, time spent cleaning facilities, and time when no projects or tasks have been assigned by the City.
- d. Unless otherwise expressly authorized in the Contract, the Contractor shall pass through all Subcontract and other authorized expenses at actual cost without markup.
- e. Federal excise taxes, State taxes, or City sales taxes must not be included in the invoiced amount. The City will furnish a tax exemption certificate upon request.

.19 Invoicing for Standard and Non-Standard Work Assignments:

1. Terms for Standard Work Assignments:

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Standard Work Assignments will be an itemized listing of all units completed and accepted by the Owner or Owner's designee.

2. Invoice Format for Standard Work:

Owner's provided Pre-Billing Report for each invoice batch for Standard Work Assignments will include for each Work Assignment an itemized listing of all units completed and approved resulting in a Total Unit Price Cost Amount for each invoice.

3. Non-Standard Work Assignments:

All Non-Standard Work Assignments that may be assigned to the Contractor on an Hourly Rate Basis or as a Lump Sum Basis, the invoice for a Non-Standard Work Assignment will be for the actual hours worked multiplied by the hourly rate, for each personnel and equipment used on the project. The Work Descriptions and work accomplished, i.e. lengths, tons, cubic yards, etc., shall be recorded under/in Contractor Invoicing (CI) under "Description or Location".

.20 Invoicing - Hourly Rate Personnel:

For each project, the Contractor will be required to report the hours for equipment and personnel utilized. Equipment shall be specific to type of equipment and personnel shall be specific to the actual craft provided. Employee reporting may be made by submitting time sheet documents, provided such documents show the Work Release to which the employee's time was charged and shows the actual level at which work was performed.

Time which is invoiced for labor shall be limited to hours actually worked and for attending safety meetings. Non billable time for personnel shall include but not be limited to sick time, vacation, personal leave, time at lunch, time spent maintaining equipment, time spent cleaning facilities, and time when no projects or tasks have been assigned by the City.

.21 Invoicing Hourly Rate Equipment (Non-Transportation):

Equipment used for Performance of the Work (non-transportation equipment) equipment supplied by the Contractor to perform Work on an Hourly Rate Basis shall be invoiced at the rate submitted in 00300CSP AE Proposal Form. No markup shall be allowed for overtime or emergency work. Only hours of actual usage shall be billable. Time during transport of equipment to and from the job site, equipment down time, and time when equipment is not in use, will not be billable to the City. If in the opinion of the City, the equipment is not essential or does not add value to the performance of the work, the City shall have the right to alter equipment make up during the course of the work, to require the Contractor to make efficient use of equipment by sharing between crews, or to direct that the equipment be removed from the work site, or that such equipment not be charged to the City while it remains at the work site.

.22 Invoicing Transportation Equipment Which Is Integral to The Work:

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Time invoiced for transportation equipment which is primarily used for the transportation of personnel, materials, and tools which is essential for the ongoing performance of the work (pickup trucks, crew trucks, boom trucks, etc.) will be computed on a portal-to-portal basis (from the Contractor's yard and back). No markup shall be allowed for overtime or emergency work. Hours shall be invoiced at the rate submitted in the Proposal Form, Section 00300CSP AE.

.23 Invoicing Standby Time for Equipment:

Standby time at the job site that has been approved by the City's Field Inspector shall be invoiced at one half (1/2) of the hourly rate. Standby time will typically be authorized if the anticipated time to stand by is less than the time required to make approximately three round trips to the Contractor's yard from the work site. Standby time may also be authorized if the work, which is being performed, has an element of uncertainty and additional use of the equipment may be required. If the Contractor elects to keep such equipment at the work site for extended periods and, in the opinion of the City's Field Inspector, the equipment is not essential to the work, then the equipment shall be non-billable for such extended periods.

.24 Invoicing Equipment Breakdown:

In case of an equipment breakdown, Contractor shall either supply the crew with replacement equipment, or relocate workers to other crews if additional workers can be effectively utilized. Time lost due to breakdown of Contractor equipment greater than forty-five (45) minutes shall not be billable to the City. Field crews must report such breakdowns to Contractor within fifteen (15) minutes of the occurrence.

.25 Invoicing for Subcontractor Services and Other Expenses:

For Services provided by the Contractor through a Subcontractor or Specialty Services Subcontractor, Contractor shall submit all Subcontractor invoicing to City within 30 days after project completion or in a time frame acceptable to City.

1. Subcontractor Labor and Equipment Services Used as Supplement to Contractor's Hourly Services (Standard and Non-Standard Projects):

Labor and Equipment provided by the Subcontractor, which are specifically identified in the Proposal Form, Section 00300CSP AE, shall be invoiced at Contractor's Hourly Rates for labor and equipment. The City will not accept invoicing for Subcontractor services at Hourly Rates, which are higher than those submitted by the Contractor in their bid for the same labor or equipment classification. That is, for labor and equipment, which is itemized in the Bid Sheet, rates cannot exceed the bid amount, whether the labor and equipment is provided directly by the Contractor, or by a Subcontractor. No Percent Markup will be allowed for subcontracted work, which is a routine supplement to Contractor's hourly services. Billing shall comply with the process defined for Standard and Non-Standard Work Projects.

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.26 Other Specialty Service Subcontractors:

The invoice amount for Specialty Subcontractor services which are not specifically identified in the Proposal Form, Section 00300CSP AE, shall be the Subcontractor's invoice to the Contractor, multiplied by the Percent Markup for Specialty Subcontractor Services accepted by the City in the Proposal Form, Section 00300CSP AE. The Contractor shall include, with the invoice, any competitive bids solicited by the Contractor as part of their purchasing process, along with appropriate documentation to verify Contractor or Subcontractor charges. Compliance with minority subcontractor and MBE/WBE requirements shall be adhered to.

.27 Invoicing for Supply Subcontractors:

Invoicing for parts, materials, and supplies provided directly by the Contractor or indirectly by a Supply Subcontractor at the request of the City shall be invoiced at Contractor's cost plus the Percent Markup agreed to in the Proposal Form, Section 00300CSP AE. The cost shall be the actual delivered cost to the site. The invoice shall include Work Release Number, delivery confirmation, and date of order. It shall be accompanied by appropriate documentation to demonstrate the Contractor's actual cost. At City's request, the Contractor shall include, with the invoice, any competitive bids solicited by the Contractor as part of their purchasing process, along with appropriate documentation to verify Contractor or Subcontractor charges. Compliance with minority subcontractor and MBE/WBE requirements shall be adhered to.

.28 Non-Billable Supplied Parts, Materials. and Supplies:

Whether supplied directly by Contractor or by Supply Subcontractor, Contractor shall not invoice City for the purchase of any material, parts, or supplies, which are provided to the City as part of Unit Price Work or Hourly Rate Work. Contractor shall not invoice City for the purchase of material or supplies, which are routine, operational cost for doing business, including but not limited to, the following materials, parts, or supplies:

- a. Tools used by Contractor for work
- b. Contractor's office supplies, office equipment, or computers
- c. Parts for Contractor equipment,
- d. Contractor's safety equipment or clothing
- e. Oil, grease, or fuel for Contractor equipment
- f. Maintenance on Contractor equipment

Other materials, parts, or supplies for which there is no contractually agreed amount, or which are not approved in advance by the City in writing, are Non-Billable.

.29 Rental Equipment: Rental equipment which is not specifically identified in the, Proposal Form, Section 00300CSP AE, shall be invoiced at the Contractor's actual cost for the equipment rented multiplied by the Percent Markup for Rental Equipment agreed upon in the Proposal Form, Section 00300CSP AE. No additional cost for fuel, oil, or repairs, or any other costs, which are not a part of the rental agreement, shall be billable to the City. Any delivery fees, fuel, and/or environmental charges shall be treated as

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a pass-through cost and are not eligible for the percentage markup. At the City's request, Contractor shall include, with the rental invoice, their competitive bids solicited by the Contractor as part of their purchasing process. Other appropriate documentation to verify Contractor or Subcontractor charges may be requested at the City's sole discretion. The City reserves the right to approve the rental agreement in advance.

.30 Other Non-billable Expenses:

1. Rework: Time and materials required for rework instructed by the City's Field Inspector shall not be billable. Rework required to repair damage to private property, City's property shall not be billable to the City. Unavoidable damage to private property or planned work to facilitate completion of the task (i.e. filling of unavoidable ruts, sod replacement, or replacement of fence or gate) shall be discussed with the City prior to the work, and shall not be billable to the City without approval by the City.

2. Bonds: Cost of bid bond, performance bonds, and payment bonds shall be the responsibility of the Contractor and shall not be billable to the City unless additional bonding is requested by the City for special projects. Cost of insurance premiums shall also be the responsibility of the Contractor and shall not be billable to the City.

.31 Percent Mark-Ups: The percentage mark-ups on equipment rental, material, supply and parts, and specialty subcontract services shall be fixed throughout the full term of the Contract and are not subject to increase.

14.3 Review of Applications for Progress Payment:

Delete in its entirety: 14.3

14.7 Substantial Completion:

Delete the following in its entirety: 14.7.1 and 14.7.2

Add the following:

"14.7.3 Individual Work Assignments, as issued by the OWNER to the CONTRACTOR, will define Final Completion for individual projects."

"14.7.4 Substantial Completion in the 00700 General Conditions is not used for work under this contract."

14.8 Partial Utilization: *Delete 14.8. in its entirety*

14.9 Final Inspection: *Remove and replace with the following:* Contractor must notify Owner of completion of a Work Assignment, by phone or email no later than one (1) business day to request final walk through and inspection. Upon final walk-through, Inspector will provide a written approval if work is accepted. If work is not accepted, Inspector will provide a list of areas not in compliance with the Contract and/or Work

Bidding Requirements, Contract Forms and Conditions of the Contract

Assignment to be completed by Contractor at no additional cost to Owner prior to requesting another inspection. This process shall continue until the Work Assignment is accepted by Owner. Any extensions to the Owners need by date must be approved in writing by Owner.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

Remove 15.4 and replace with the following:

15.4 CONTRACTOR May Stop Work or Terminate If through no act or fault of CONTRACTOR, the Work of all Work Assignments under this Agreement is suspended for a period of more than one hundred twenty (120) calendar days by OWNER or under an order of court or other public authority, or (except during disputes) Owner's Representative fails to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER fails for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, then CONTRACTOR may, upon seven (7) calendar days' Written Notice to OWNER, and provided OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.2. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) Owner's Representative has failed to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER has failed for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, CONTRACTOR may upon seven (7) calendar days' Written Notice to OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.4 are not intended to preclude CONTRACTOR from making a Claim under Articles 11 and 12 for an increase in Contract Amount or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph. CONTRACTOR may not terminate the Agreement for stoppage or termination of a Work Assignment. OWNER may stop or terminate the Work of a Work Assignment and re-reassign the Work at a later time or assign a different Work Assignment. CONTRACTOR and OWNER agree that OWNER's stoppage or termination of the Work of a Work Assignment does not constitute stoppage or termination of the Work for purposes of this paragraph 15.4.

Bidding Requirements, Contract Forms and Conditions of the Contract

WARRANTY ITEM NO. _____ (PROJECT NAME) The General Conditions of the Contract require that Warranty Defects be corrected within 7 days after written notice is received.

TO: _____
contractor name address / telephone / fax / email

ATTENTION OF: _____

FROM: _____
project manager name / address / telephone / fax / email

PROJECT: _____
name / location / CIP ID number

END OF ONE YEAR WARRANTY: _____

SUBJECT: _____

If checked, the damage requires immediate attention. The Contractor has been called.
 If checked, the Consultant has been asked to consult with the Contractor on the problem.

PLEASE CORRECT OR REPAIR THE FOLLOWING ITEM(S):

DATE OF REQUEST _____ **SIGNATURE** _____
Project Manager

xc:
 _____ Phone No. _____
 _____ Phone No. _____
 _____ Phone No. _____
 _____ Phone No. _____

RESPONSE FROM CONTRACTOR: _____ DATE CORRECTION WAS MADE: _____

The Contractor must endeavor to correct the defect within 7 calendar days after written notice is given. If the defect cannot be corrected in that time, Contractor shall provide a written explanation to the Owner's Representative describing the repairs needed and the time required to complete the repairs.

Description of corrections made:

DATE OF REPLY _____ **SIGNATURE** _____

When the repair is complete, the contractor should return a copy to each of the following:

_____ Phone No. _____
 _____ Phone No. _____
 _____ Phone No. _____
 _____ Phone No. _____

END

Network Connection Agreement

Austin Energy Network and Systems Access

PART I

This Network Connection Agreement for Network and Systems Access ("Agreement") is entered into as of [ENTER MONTH, DAY, YEAR] (the "Effective Date"), by and between

AUSTIN ENERGY, the Electric Utility Department of the City of Austin ("Austin Energy")

and

[ENTER COMPANY NAME] ("Consultant" or "Company").

Part II of this Agreement sets forth the terms and conditions under which Austin Energy is willing to permit Consultant access to Austin Energy's corporate computer network (the "Network") and one or more Austin Energy information and computer systems (the "Systems").

Austin Energy has, at substantial cost, developed the Network and Systems to provide information services to itself and other City of Austin departments. The Network and Systems perform vital functions for these departments. The unwarranted or unauthorized access or use of the Network or Systems could put Austin Energy and these departments at significant risk of damage, including power plant power outages, interruption of electric utility service, interference with statewide power grids, danger to life and property, destruction of data, and the unwanted disclosure of sensitive or private information.

Consultant (and/or its subcontractors) has requested access to some or all of the Austin Energy Network and Systems, to facilitate the performance of its obligations to Austin Energy relative to the following project or contracted service:

UNDERGROUND ELECTRICAL CIVIL CONSTRUCTION

For the purpose of clarification, the terms of this Agreement apply to the Consultant's access or Consultant's subcontractors' access to Austin Energy via Anywhere Outside Connect (AOC). "Consultant" includes Consultant's subcontractors wherever that term is used in this Agreement.

Austin Energy is willing to permit such access based on the level of risk to Austin Energy's physical and information assets and Consultant's assurance that it will abide by the terms and conditions as defined in Part II of this Agreement, as evidenced by its signature in Part II Section 10.



Network Connection Agreement

Austin Energy Network & Systems Access PART II: Terms and Conditions

1. SCOPE OF ACCESS

Consultant shall use this access to the Network and Systems solely for the purpose of performing services associated with the project or contract at Austin Energy as specified in Part I of this Agreement. Consultant shall limit its access to the means and method approved by Austin Energy, as further described below in Section 6, *Specific Connections*.

Austin Energy may terminate or otherwise curtail Consultant's access to the Network or Systems at any time without notice to Consultant. However, Consultant will be relieved of any obligation to perform implementation or services as required by Austin Energy to the extent the termination was without cause, and access by Consultant was necessary to perform such obligation.

Consultant shall comply with the terms and conditions set forth in this Agreement, and with any security procedures, guidelines or alerts issued by Austin Energy from time to time. Austin Energy may, upon written notice to Consultant, require modification or supplementing of any of the terms and conditions contained in this Agreement, and Consultant agrees to abide by those terms.

2. DEFINITIONS

Computer system	The complete, working computer. Includes not only the computer, but also any software and peripheral devices that are necessary to make the computer function.
Information System	The business application that operates on a computer system. Includes the database, application programs, and machine procedures.
Network	The system that transmits any combination of voice, video and/or data between users. Includes all supporting hardware, such routers and switches, the cables connecting them, client and server machines, and network operating systems.
Consultant Executive	Consultant's executive who is authorized to and signs this legally binding agreement. This executive is expected to be the Company's President, a Vice President, Legal counsel, or equivalent role.
Consultant Delegated Agent	Consultant's point of contact to Austin Energy who administers the day-to-day operations of the project/program, such as Program Manager or Team Supervisor. Written notice is required for replacements (see Section 7, <i>Delegation of Authority</i> for requirements).



Network Connection Agreement

3. CONSENT TO MONITORING

Austin Energy may monitor and record any access to the Network and Systems at any time without notice to Consultant. Consultant consents to this monitoring and recording, and Consultant will ensure that all persons obtaining access to the Network and Systems through Consultant consent to this monitoring and recording.

4. CONSULTANT RESPONSIBILITIES

4.1 Consultant Personnel

Consultant shall limit access to the Network and Systems to those employees of Consultant ("Consultant Personnel") who need to have such access. Consultant shall provide a copy of this Agreement to all Consultant Personnel requiring remote access and shall require each person to review and sign the individual Consultant Remote Access Request form acknowledging such. Consultant agrees it shall be entirely responsible for the acts and omissions of any person to whom it authorizes access.

4.2 Login IDs and Security Tokens

4.2.1 Personal Token Login IDs

Austin Energy may elect to issue a personal Login ID and security token to authorized Consultant Personnel to be used during login. Consultant Personnel assigned a token are responsible to keep said token secure. Only the authorized individual is permitted to use his or her assigned Login ID and token passcode.

Austin Energy may request the return of the token at any time. A fee of \$100 will be paid by the Consultant if the token is not returned or, upon return, is not in working order.

4.2.2 Shared Token Login IDs

Austin Energy may assign a shared Login ID to a pool of Consultant Personnel who are authorized to access Austin Energy Systems for the purpose of intermittent technical support. A shared security token for the Consultant Personnel shall be issued to an authorized Austin Energy contact, who shall serve as the token custodian. Consultant must contact the Austin Energy token custodian in order to gain a passcode for single session access.

4.3 Consultant Systems

Consultant shall be responsible for all systems that Consultant uses to access the Network and Systems. Consultant shall ensure that its systems include up-to-date antiviral software reasonably acceptable to Austin Energy to prevent viruses from reaching the Network and Systems through Consultant's systems. Consultant shall take reasonable precautions to prevent unauthorized access to the Network and Systems through Consultant's systems.

Consultant assumes full responsibility for any systems it uses to access the Network or Systems, notwithstanding a specification or direction from Austin Energy. Consultant is expected to back up its own files, maintain firewalls, and take such other precautions as will minimize the impact of any malfunction or computer error on its own systems.



Network Connection Agreement

4.4 Notice of Breaches

Consultant shall IMMEDIATELY notify Austin Energy upon learning of any security breach by contacting the Austin Energy Technology Control Center at (512) 322-6077 and the Austin Energy contact person identified in the Agreement (by phone or e-mail). Consultant shall communicate the nature of its access and the nature of the security breach. In addition, Consultant shall, within 24 hours of the security breach, notify the Austin Energy contact person by written notice as described in Section 8, *Notices and Contacts*.

As used in this Section 4.4, the term "security breach" means any actual or threatened unauthorized access to the Network or the Systems, or to the details or specifications that would enable another individual to gain access, or to any information or data obtained during access. By way of examples, (1) knowledge that a specific Login ID has been published or otherwise made available to an unintended recipient constitutes a security breach, or (2) knowledge that an individual might have copied Austin Energy files, without the express permission of Austin Energy, or that an individual might have used access to the Network or Systems for any purpose other than that described in Section 1, *Scope of Access*, constitutes a security breach.

Consultant shall cooperate fully with Austin Energy to investigate any security breach and to take such steps as to minimize the impact thereof.

4.5 Third-Party Software

Access to the Network and Systems may involve access to software or other technology licensed by Austin Energy or other City departments from third parties. Consultant will use such software or technology for the sole purpose described in Section 1, *Scope of Access*, and shall comply with all restrictions applicable to that software and technology.

4.6 Transmission of Harmful Material

Consultant will not transmit nor permit the transmission of any unlawful, threatening, libelous, defamatory, obscene, scandalous, inflammatory, pornographic or profane material through the Network and Systems. Consultant acknowledges that Austin Energy intends to cooperate fully with law enforcement, regulatory, or judicial investigations of any access to the Network and Systems. This cooperation can include disclosure of the identity of, and the information transmitted or received by, persons accessing the Network and Systems.

4.7 Security Audits

In addition to, and without limiting, any rights contained in the Agreement, Austin Energy, at its sole expense, may conduct security audits of Consultant's access and of any Consultant systems that have access to the Network and Systems. These audits can include (1) an inspection of Consultant's systems and environment, (2) a review of Consultant's security procedures, and (3) an execution of security tests to verify system integrity. Consultant will immediately resolve any material issues identified through these audits.

4.8 Removal of Data

Consultant shall not retain copies of any data or information (including Third-Party Software) obtained from access to the Network and Systems, except as expressly permitted by Austin Energy in writing. Upon Austin Energy's request, Consultant shall promptly return such data and information to Austin Energy or destroy it as directed by Austin Energy, and so certify the same to Austin Energy in writing.



Network Connection Agreement

4.9 Confidentiality

All details, specifications, and other information regarding Consultant's access to the Network and Systems, including, but not limited to, all Login IDs and any information obtained as a result of access to, the Network and Systems, shall be deemed "Confidential Information" of Austin Energy.

Consultant agrees that it will not use, disclose, publish, or otherwise divulge to any third party either during or after the termination of this Agreement or permit its officers or employees to so divulge any Confidential Information of Austin Energy without prior written consent of Austin Energy. Consultant shall employ no less stringent procedures than the procedures used to protect its own confidential data. If disclosure to a third party, such as an auditor, is required, the third party is required to first sign a confidentiality agreement with the owner of the confidential information.

5. DISCLAIMER

ACCESS TO THE NETWORK, THE SYSTEMS AND ANY SOFTWARE OR EQUIPMENT PROVIDED THEREWITH IS PROVIDED "AS IS" WITHOUT ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. Nothing in these terms and conditions shall be construed as granting Consultant a right of access to the Network or Systems, a right to access the premises of Austin Energy, or a right to use any software or equipment provided therewith without express permission from Austin Energy.

6. SPECIFIC CONNECTIONS

6.1 Conditions for Client Connections

Consultant agrees that it or any of its associated affiliates, subsidiaries, or subcontractors is prohibited from directly accessing or connecting to the Network from any non-U.S.-based remote access or connection point, and agrees any such connection constitutes an immediate violation of this Agreement such that Austin Energy shall immediately sever any such access without liability or legal exposure of any sort.

Unless otherwise authorized by Austin Energy, all remote access for support or monitoring purposes shall go through Austin Energy's secure corporate remote access solution.

All access to the Network and Systems shall be strictly limited, both physically and technologically, to that which is necessary to perform the permitted tasks.

6.2 Conditions for Cyber Security Adherence

Consultant agrees to comply with Austin Energy Consultant/Vendor Acceptable Use Policy (attached as Appendix) and any other mutually agreed upon cyber security requirements defined in this Agreement or other contract.

Consultant is responsible for implementing antivirus software and updating virus signatures on a regular basis (at least monthly) and for implementing applicable system security software updates. Such updates shall be applied within a reasonable period after software release, availability or written notification, not to exceed 30 days. In the event of serious network security incident or breach deemed by Austin Energy Information Security, Consultant may be required to immediately apply updates or to disconnect from the Network at Austin Energy's request.



Network Connection Agreement

Consultant shall immediately notify Austin Energy, as described in Section 4.4, upon discovery of any security incident. Security incidents include but are not limited to, virus, network intrusion, or other event on Consultant's computer network that could affect the Network or system or data contained therein. During such incidents, Consultant shall immediately disconnect the computer network connection, either at the request of Austin Energy or as Consultant deems appropriate to protect the Network, the Systems, or data.

7. DELEGATION OF AUTHORITY

Consultant Executive shall delegate a Consultant Delegated Agent who shall be responsible for reviewing and approving individual Consultant Personnel requests for remote access as defined in this Agreement. All Consultant Personnel connections are subject to Austin Energy consent, and subject to continued compliance with this Agreement.

The Consultant Executive or Delegated Agent may designate a replacement by providing written notice to the Austin Energy contact named in this Section 8, *Notices and Contacts*.

8. NOTICES AND CONTACTS

Unless otherwise provided above, all notices and contacts regarding remote access to the Network or Systems shall be made to the following:

If to Austin Energy:

Austin Energy
721 Barton Springs Rd
Austin, Texas 78704
Attn: Daniel Krutsinger
E-mail: daniel.krutsinger@austinenergy.com
(512) 322-6385

If to Consultant:

Consultant Company name: _____
Company Address: _____
City, State Zip: _____
Attn (Consultant Delegated Agent): _____
E-mail: _____
Phone: _____

All written notices must be delivered by hand-delivery, nationally recognized overnight courier, or U.S. mail and sent in a manner that provides confirmation of receipt. Where immediate notice is specifically required, notices shall be communicated first by telephone and followed up by e-mails, and then by written notice.

Either party may change its contact by providing written notice to the other using the above contact information.



Network Connection Agreement

9. SURVIVAL; MISCELLANEOUS

This Agreement and its provisions shall survive the expiration or termination of the project implementation or contracted service for so long as necessary as to carry out the intent of this Agreement. No act or omission on the part of Austin Energy shall be construed as a waiver of the terms and conditions contained in this Agreement unless in writing signed by Austin Energy, and no waiver in any particular instance shall act as a waiver in any future instance unless so stated in the writing.



Network Connection Agreement

Appendix to Network Connection Agreement Austin Energy Consultant/Vendor Acceptable Use Policy

1 PURPOSE

The purpose of this policy is to establish guidelines and minimum requirements governing the acceptable use of Austin Energy (AE) information technology resources and remote access connections provided to vendors and consultants as part of a contract agreement.

This policy is in addition to any mutually agreed upon cyber security requirements as defined by contract or connection agreement.

2 USER RESPONSIBILITIES

- 2.1 Be accountable for all activity conducted under the user's login or e-mail account.
- 2.2 Take all reasonable precautions to prevent the unauthorized use of workstations and laptops by unauthorized individuals.
- 2.3 Lock the keyboard or use a password-enabled screen saver whenever you leave your workstation or laptop to protect your account from unauthorized access.
- 2.4 Ensure up-to-date virus protection is installed and activated on any information technology system that is connected to the AE information technology systems.
- 2.5 Communicate data security needs of information under your purview to your AE Customer Relationship Manager or Project Manager.
- 2.6 Save all AE business data to authorized AE drives or AE-approved disk storage.
- 2.7 Follow all security requirements as specified in the contract and/or connection agreement approved by AE and the authorized consultant/vendor company representatives.
- 2.8 Use information technology resources efficiently and productively.
- 2.9 Do not download and/or install non-authorized software on AE information technology resources.
- 2.10 Be courteous and follow accepted standards of etiquette for e-mail communication.

3 GENERAL STATEMENT OF THE POLICY

- 3.1 The use of AE Internet, e-mail and information technology systems must be related to, and for the benefit of City of Austin government and/or AE business.
- 3.2 All on-line communications, such as e-mail messages (and attachments) and postings to various on-line discussion groups and forums, are subject to the same laws, regulations, policies, and other requirements as information communicated in other written forms and formats. This includes proper business correspondence practices and other appropriate use policies for AE equipment and systems.
- 3.3 Network resources must be used responsibly to avoid creating a negative impact on others who share those same resources (see section *11 Resource Considerations*).



Network Connection Agreement

4 IMPLEMENTATION

4.1 Security

- 4.1.1 Because the Internet and its tools adhere to open and documented standards and specifications, it is inherently an unsecured network that has no built-in security controls.
 - 4.1.1.1 Avoid including confidential and sensitive information in e-mail and on-line communications unless proper, formalized security precautions have been established and are used (such as, encryption).
 - 4.1.1.2 Protect privileged or confidential information whenever intentional, inappropriate, or accidental disclosure of the information might expose AE or an individual to loss or harm.
- 4.1.2 Protect your password. Passwords must not be shared with anyone, including managers.
- 4.1.3 Authorized AE information technology staff reserve the right to access your password information and change it through legitimate means for business or security reasons.
- 4.1.4 Remote access connections shall be through Secure Shell (SSH) that provides encryption to protect the transferred information and authentication that the target remote system is correct. Telnet use for remote access is prohibited.

4.2 Privacy

Users acknowledge that they have no legitimate expectation of privacy when using AE resources as follows:

- 4.2.1 All electronic files and data developed under contract are the property of AE, regardless of their physical location or the form in which they are maintained. These files and data may be used, stored and disclosed at AE's discretion.
- 4.2.2 Internet usage, e-mail, or other forms of electronic messaging are not considered personal or private when using AE resources.
- 4.2.3 AE has the right to access and disclose all messages, attachments, and other electronic data sent or received over the AE electronic mail system or stored in its files.
- 4.2.4 Any e-mail and attachments sent from or received under an AE e-mail account can be public records and are subject to the mandatory public disclosure requirements of the Texas Open Information Act, unless excepted by the Act.
- 4.2.5 AE ITT staff routinely monitors every connection to the Internet (including e-mail, Websites, and instant messaging) to ensure compliance with this policy.

4.3 Acceptable Use

Acceptable uses of computer resources are those that conform to the purpose, goals, and mission of AE, to each user's job duties and responsibilities according to contracted services between AE and the consultant or vendor. The following list, although not all-inclusive, provides some examples of acceptable uses:



Network Connection Agreement

- 4.3.1 Accessing computer systems and resources to perform work required to fulfill contractual obligations
- 4.3.2 Communications and information exchanges directly relating to the mission, charter, and work tasks of AE including e-mail in direct support of work-related functions or collaborative projects.
- 4.3.3 Communications with vendors of products used or being considered for use by AE, either to investigate use of their product or to receive help in using their product.
- 4.3.4 Research and information gathering in support of AE.

4.4 Unacceptable Use

Unacceptable use can be defined as activities that do not conform to the purpose, goals, and mission of AE and to each user's job duties and responsibilities as contracted between AE and the consultant or vendor. Any questionable computer usage should be avoided. When in doubt, seek clarification with AE management prior to pursuing the activity.

AE computers, e-mail, and/or Internet or remote access connections cannot be used to perform any of the following activities:

- 4.4.1 Seek or gain unauthorized access to AE or City of Austin network resources or Internet or intranet resources. Provide a means of unauthorized access to any AE or City of Austin resources.
- 4.4.2 Destroy the integrity of computer-based information.
- 4.4.3 Compromise the privacy and/or security of users.
- 4.4.4 Disrupt the functions of AE and/or City of Austin networks or other computer resources, including, but not limited to, propagation of worms or viruses or other debilitating programs.
- 4.4.5 Circumvent legal copyrights or trademarks or participate in their infringement.
- 4.4.6 Conduct or promote commercial or private/personal business enterprises or products.
- 4.4.7 Support or solicit on behalf of groups, organizations, or such that are not related to AE or City of Austin or engage in political lobbying.
- 4.4.8 Transmit unsolicited commercial information (such as junk mail or advertising). Issue or propagate unsolicited e-mail or bulk e-mail.
- 4.4.9 Listen to, view, or download audio or video files for entertainment or leisure activities unless authorized by the appropriate AE project manager or supervisor.
- 4.4.10 Transmit material that may be deemed offensive to its recipient. View, transmit, or receive sexually explicit material. Advocate racial, ethnic, religious, or gender-based slurs.
- 4.4.11 Threaten or harass others. Contribute to the harming of minors.
- 4.4.12 Conduct or participate in illegal or fraudulent activity. Commit forgery or impersonation.



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4.5 Remote Access

- 4.5.1 Remote access is a privilege, not a right. Any violation in its use can result in access being terminated.
- 4.5.2 Do not share connection information, such as passwords, phone numbers, encryption keys or software, with anyone.
- 4.5.3 Follow all Terms and Conditions of the Network Connection Agreement approved by AE and the authorized consultant/vendor company representatives.

4.6 Wireless Network/Access

- 4.6.1 Wireless connections to the AE network are expressly prohibited unless sanctioned by AE Information Technology Infrastructure Management.
- 4.6.2 Wireless home networks are not allowed to be connected to AE's network.

4.7 Resource Considerations

The following policies relate to activities that can negatively affect network performance and resources:

- 4.7.1 Only approved staff within AE are permitted to broadcast messages to all AE employees at once. Contact the AE Technology Control Center if such notifications are needed.
- 4.7.2 Delete unnecessary messages and attachments on AE e-mail accounts, according to AE record retention requirements. Contact the AE Records Coordinator for the appropriate workgroup for more information.
- 4.7.3 Whenever possible, avoid sending e-mails with 100kb or larger document attachments. For internal correspondence, when possible, place the document in a shared location and link it in the e-mail. For external correspondence, it is preferable to use FTP to transfer large files.
- 4.7.4 Limit downloading large files to a time after normal business hours at both local time and the time at the remote site. Users must be knowledgeable about the network and desktop resource requirements for the transfer.
- 4.7.5 Only subscribe to very active mailing lists, discussion groups or news groups if absolutely necessary to support a job duty or assignment. A high volume of messages can impact your time, network resources, and file storage requirements.
- 4.7.6 Avoid downloading music or videos to AE's resources for entertainment purposes. These programs can have virus, copyright and bandwidth issues.



Austin Energy Data Handling Controls

Rev. No.: 2.0	Date: October 5, 2018
Owner: Enterprise Information Security	Category: Information Security
Author: Michael Goin	SME: Mike Goin, AE Risk Management, AE Legal
	Doc Type: Contract Exhibit

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1. DATA HANDLING CONTROLS: SECURITY DIRECTIVES AND REQUIREMENTS

1.1. Contractor Responsibilities regarding treatment of City Data

- 1.1.1. The City requires that controls (“Data Handling Controls” or “DHC”) be in place to manage risk to the confidentiality, integrity and availability of City Confidential Information in any form in the care, custody or control of Contractor. These Data Handling Controls represent a minimum standard for protection. Additional controls required under applicable laws, regulations, or standards governing specific forms of data (e.g., health information, credit cardholder data) may also apply.
- 1.1.2. Contractor agrees to comply with these Data Handling Controls in performing the Services (including information technology-based Services) and in providing the Deliverables under the Contract. Contractor accepts all responsibility and liability for the security, integrity and protection of all City Data in its custody or control, including but not limited to when City Data is received, transmitted, processed, stored, backed up, archived, returned, or as occurs otherwise during performance of Services, including that involving a subcontractor. Contractor agrees that any damages or liability arising from any violation of these Data Handling Controls, including damage to City Data as well as all work to restore City Data and its integrity, are Contractor’s responsibility. Contractor agrees that compliance with these Data Handling Controls is not an affirmative defense to any losses, disclosures, corruption or other damage to City Data which may occur for which Contractor is responsible, as Contractor acknowledges and agrees that there may be situations for which the Data Handling Controls may be inadequate to reasonably protect City Data as a project matures during the term of the Contract, and Contractor agrees to use appropriate additional measures in its reasonable judgment to protect City Data in such situations.

1.2. Location Parameters

- 1.2.1. The authorized geographical data center region for the storage and processing of City Data under this Contract is the contiguous United States.
- 1.2.2. Contractor may utilize non-US based personnel but must ensure that City Confidential Information cannot be stored, viewed, downloaded, or transported outside the contiguous United States.

1.3. Specific Security Directives

- 1.3.1. For access to City Data, Contractor must ensure that only the minimum amount of rights is granted to an Authorized Person as required to perform Contractor’s contractual duties.

- 1.3.2. Unless otherwise approved by the City in advance, in writing, Contractor must encrypt all City Confidential Information. Only an Authorized Person within the Secure Service Area may view unencrypted City Confidential Information.
 - 1.3.2.1. Contractor employees and subcontractors who have provided written certification showing they meet the minimum requirements of these Data Handling Controls are allowed to view unencrypted City Confidential Information if necessary to provide the Services.
 - 1.3.2.2. The Secure Service Area shall be designed in such a way as to prohibit the unauthorized viewing, modification, or destruction of any unencrypted City Confidential Information (including any image). Contractor may not remove City Confidential Information from the Secure Service Area unless approved by the City in advance in writing.
- 1.3.3. Unencrypted City Confidential Information may not be stored on any Contractor or subcontractor Endpoint Device.
- 1.3.4. Contractor must have in place its own internal security program that includes policies using applicable industry best practices. Contractor will provide documentation of these policies and procedures within ten business days of written request by the City.
- 1.3.5. Contractor must detach all removable storage media containing City Confidential Information from any device when not in use and store the media in Contractor's physically-secure location.
- 1.3.6. Contractor must ensure that only an Authorized Person may access devices containing City Data.

1.4. Data Disposition

- 1.4.1. Contractor agrees to return all City Data obtained under this Contract (including this DHC) or otherwise in its care, custody or control to the originating City department, and to delete any remaining copies from Contractor's storage/production/use/possession at the end of the engagement, including:
 - 1.4.1.1. as stated in any scope of work and/or
 - 1.4.1.2. at City's request, or upon
 - 1.4.1.3. Contractor's failure to follow the compliance directives of this Data Handling Controls document.

1.5. General Compliance Requirements

- 1.5.1 Contractor's failure to comply with any provision of these Data Handling Controls is a material default under the Contract.

1.5.2 Contractor agrees that City or its authorized representatives may audit or review Contractor's compliance with these Data Handling Controls under Contract Section 0300, Paragraph 17, Audits and Records. Except in an emergency (including a Breach or Security Incident), such audit or review shall be conducted only during normal business hours and without disrupting normal business practice, and City shall provide reasonable advance notice of exercising its right of audit or review.

Audits or reviews may include, but are not limited to:

- system, security, application, operating system, and database logs;
- physical access logs at all data centers;
- data center location or ownership changes;
- access control procedures;
- procedures for the physical and digital destruction of media;
- environment changes that have the potential for outages;
- workplace inspections for compliance with these Data Handling Controls and review of any Vendor supplied documentation submitted to document/demonstrate compliance; and
- procedures for and evidence of routine testing and updating of systems to prevent against attacks.

1.6. Logging/Auditing Requirements

1.6.1. Contractor must create system, security, application, operating system, and database logs:

- 1.6.1.1. when Contractor creates, reads, updates, or deletes City Data;
- 1.6.1.2. when Contractor initiates a network connection;
- 1.6.1.3. when Contractor accepts a network connection;
- 1.6.1.4. at user authentication and authorization, including failed access attempts;
- 1.6.1.5. for user login and logout;
- 1.6.1.6. when Contractor grants, modifies, or revokes access rights, privilege levels, and permissions, firewall rules, and user passwords;

- 1.6.1.7. when Contractor makes any system, network, or services configuration changes, including installation of software patches and updates, other installed software changes, operating system and Hypervisor activity;
 - 1.6.1.8. at application process startup, shutdown, or restart;
 - 1.6.1.9. in the case of any application process abort, failure, or abnormal end, especially due to resource exhaustion or reaching a resource limit or threshold (such as for CPU, memory, network connections, network bandwidth, disk space, or other resources), and in cases of failure of network services, such as DHCP or DNS, or hardware fault; and
 - 1.6.1.10. if contractor detects suspicious or malicious activity, such as from an Intrusion Detection or Prevention System (IDS/IPS), anti-virus system, or anti-spyware system.
- 1.6.2. Contractor will retain system activity logs (and make all such logs available to City) for a period of three years after final payment on this Contract, or three years after all forensic, audit and litigation matters are resolved, whichever is longer.
 - 1.6.3. Contractor will review all relevant security logs for anomalies for potential Security Incidents and forensic analysis.

1.7. Media Reuse

- 1.7.1. Contractor must promptly Securely Erase all City Confidential Information from any permanent or non-volatile storage media:
 - 1.7.1.1. once immediate use of such media is no longer necessary,
 - 1.7.1.2. at City's request, or
 - 1.7.1.3. within 30 days of termination of the Contract.
- 1.7.2. For all endpoint and mobile devices containing City Data, Contractor agrees to utilize full disk encryption with pre-boot authentication methodologies to ensure all City Confidential Data is encrypted at rest.
- 1.7.3. Contractor shall Securely Erase all City Data by destructively overwriting all City Data to ensure that even deleted files cannot be recovered from the media.

1.8. Security

- 1.8.1. Contractor must limit access to the Hypervisor to only those qualified and pre-approved staff who have job functions dedicated to performing work on the Hypervisor. All access logs to the Hypervisor must only be reviewed by qualified personnel approved by Contractor and City.

- 1.8.2. City retains ownership over all City Data.
- 1.8.3. Contractor must use industry best practices for encryption of City Confidential Information at rest and in transit.
- 1.8.4. Contractor will ensure that all electronic and physical access to City Data is secured. Contractor must verify the identification, authentication, and authorization of each user and their specific role and access level, and Contractor must immediately block all physical and electronic access to City Data for any terminated employee.
- 1.8.5. Contractor must use due diligence to evaluate and respond to potential Security Incidents and events that create suspicions of unauthorized disclosure, modification, or destruction of City Data. The response must restore the confidentiality, integrity, and availability of the environment(s) compromised or potentially compromised, and establish root causes and remediation steps and determine the nature and extent of the event. If Contractor determines that there has been a Security Incident involving City Data (including City Confidential Information), Contractor shall report such Security Incident to the City PM within four (4) hours of determination.
- 1.8.6. Upon written request, Contractor shall make its then current key management policy for encryption keys and certificates available to the City within 10 business days.

2. DATA HANDLING CONTROLS: ADDITIONAL COMPLIANCE REQUIREMENTS

2.1. Contractor Practices

- 2.1.1. In addition to any other requirements of these Data Handling Controls, Contractor agrees it shall maintain and enforce its own reasonable and adequate security procedures during the term of the Contract for the protection of City Data, which procedures must be designed to protect City Data (especially City Confidential Information) and the hosting environment from a Security Incident, including using Contractor's best efforts to avoid the unauthorized access, modification or loss during transmission and storage, including the use of data encryption techniques described herein.
- 2.1.2. Contractor confirms that all use, transmission, storage, and destruction of City Confidential Information shall be in strict accordance with all terms, covenants, and conditions of the Contract and all applicable Federal, State, and local laws, rules, and regulations.
- 2.1.3. Contractor agrees that City may conduct, at no extra cost to City, network penetration tests of all systems at Contractor's facilities used for the processing,

storage or transmission of City Data. City may also, at its discretion, contract out penetration testing services to a third party. City shall provide reasonable notice of each network penetration test and shall conduct each network penetration test at reasonable times. If, following any testing, vulnerabilities are identified, Contractor shall promptly document Contractor's remediation action plan and provide it to the City PM within three business days, including at a minimum:

- 2.1.3.1.1. nature of the vulnerability including scope and breadth,
 - 2.1.3.1.2. potential impact to service of vulnerability and subsequent mitigation,
 - 2.1.3.1.3. summary of mitigation, and
 - 2.1.3.1.4. known or suspected loss of City Data and ability to recover; and
- 2.1.3.2. implement the remediation action plan not later than three business days after delivery of the plan unless otherwise approved by City in writing. The implementation of remediation activity must be communicated to and approved by the City in advance, ensuring the avoidance of unplanned outages; and
- 2.1.3.3. provide City with written documentation and reports on the status of all modifications to correct such vulnerabilities, including interim and final reports.
- 2.1.4. Contractor shall perform appropriate background checks on its employees and subcontractors with access to City Confidential Information.
- 2.1.5. Contractor shall prohibit access to City Confidential Information for Contractor employees and subcontractors who fit into any of the following classifications:
- 2.1.5.1. Anyone who has been convicted of a felony offense;
 - 2.1.5.2. Anyone who has been convicted of a misdemeanor offense related to computer security, theft, fraud or violence; or
 - 2.1.5.3. Anyone who is currently awaiting trial for any of the above-stated offenses.
- 2.1.6. The COA CISO may, at any time in writing, require Contractor's employees and subcontractors to submit to additional background checks. Continued access to City Data, including City Confidential Information, and secured facilities shall be contingent on the Contractor's employee's agreement to submit to a background check and the results of the background check. Refusal shall be grounds for immediate termination of the User ID and password, and where applicable, access to COA premises and networks, and any ID badge issued shall immediately be decommissioned.

2.2. Security Incident Reporting Procedures

- 2.2.1. Contractor must telephone the City PM and e-mail AE-Exec-Info-Sec@austinenergy.com within four business hours of when Contractor discovers, is notified of, or otherwise has knowledge of any Security Incident. Contractor must include the following information in the report emailed:
 - 2.2.1.1. person reporting the Security Incident ;
 - 2.2.1.2. person who discovered the Security Incident;
 - 2.2.1.3. date and time the Security Incident was discovered;
 - 2.2.1.4. nature of the Security Incident;
 - 2.2.1.5. actions taken and by whom;
 - 2.2.1.6. involved system and possible interconnectivity with other systems;
 - 2.2.1.7. description of the information lost or compromised, or potentially lost or compromised;
 - 2.2.1.8. storage medium from which information was lost or compromised;
 - 2.2.1.9. controls in place to prevent unauthorized use of the lost or compromised information;
 - 2.2.1.10. number of individuals potentially affected;
 - 2.2.1.11. whether law enforcement or other external agencies were involved for any reason and, if so, those contacted; and
 - 2.2.1.12. any other relevant information pertaining to the Security Incident.
- 2.2.2. Within four hours of discovering the Security Incident, the Contractor shall contain the Security Incident.
- 2.2.3. Contractor shall investigate (with City's participation, if so desired by City) the Security Incident, perform a root cause analysis, and create and provide to the City a remediation plan within seven days of becoming aware of the Security Incident.

2.3. Remediation

- 2.3.1. As soon as practicable, and at no additional cost to the City, Contractor will remedy the source of the Security Incident, as required by the remediation plan.
- 2.3.2. The Contractor shall reimburse the City for all costs to City associated with the Security Incident.

2.4. Recovery

- 2.4.1. Within seven days of completing the remediation plan, Contractor must provide the City reasonable written assurance declaring full system recovery, signed by an executive with proper authority, attesting that the Security Incident is remediated and shall not recur.

2.5. Lessons Learned

- 2.5.1. Contractor shall, at no cost to the City and as part of the Services, update policies, procedures, or enforcement methods in a manner designed to prevent similar Security Incidents from recurring and provide summary of updates to City within 14 days of declaring full system recovery.

3. Definitions

- 3.1.1. **Authorized Person** – Contractor personnel (including subcontractor personnel) located in the contiguous United States having successfully completed the required background check and related requirements of the Contract
- 3.1.2. **City Project Manager or City PM** – City of Austin project manager, or their designee, assigned to this Contract
- 3.1.3. **City Data** - data or information (in any form) regarding the City or its customers that is created, collected, provided, obtained, or otherwise made available in connection with this Contract to an Authorized Person. City Data may be either non-confidential information or City Confidential Information.
- 3.1.4. **City Confidential Information** – includes: (A) information provided by City that is marked or identified as confidential, (B) information of City including software, computer programs, documentation, processes, procedures, techniques, technical, financial, customer, personnel and other business information of a non-public nature that would reasonably be understood to be confidential whether or not marked or identified as confidential, (C) information generated by Contractor (or subcontractor) that contains, reflects, or is derived from confidential information, (D) Personal Identifying Information, (E) Sensitive Personal Information, and (F) all other information made confidential by federal, state or local law or regulation. City Confidential Information is a subset of City Data.
- 3.1.5. **Data Center Region** – means the authorized geographical region for the storage and processing of City Data, and is presently only the contiguous United States.
- 3.1.6. **Data Handling Controls** – this document
- 3.1.7. **Endpoint Device** – Any network-capable computer hardware device including, but not limited to desktop computers, laptops, smart phones, tablets, thin

clients, printers or other specialized hardware such as POS terminals and smart meters.

3.1.8. **Hypervisor** – a piece of computer software, firmware or hardware that controls the flow of instructions between guest Operating Systems and the physical hardware such as CPU, disk storage, memory, and network interface cards within a virtual environment

3.1.9. **Personal Identifying Information (“PII”)** – means any information that, either alone or in conjunction with other information, identifies an individual, including an individual’s:

3.1.9.1. name, social security number, date of birth, or government-issued identification number;

3.1.9.2. mother's maiden name;

3.1.9.3. unique biometric data, including the individual's fingerprint, voice print, and retina or iris image; or

3.1.9.4. unique electronic identification number, address, or routing code

3.1.10. **Sensitive Personal Information (“SPI”)** – means

A. an individual’s first name or first initial and last name in combination with any one or more of the following items, if the name and the items are not encrypted:

(i) Social Security Number;

(ii) Driver’s License Number or government-issued ID; or

(iii) an individual's account number or credit or debit card number in combination with any required security code, access code, or password that would permit access to an individual's financial account, or

B. information that identifies an individual and relates to the physical or mental health or condition of the individual, or the provision of health care to the individual.

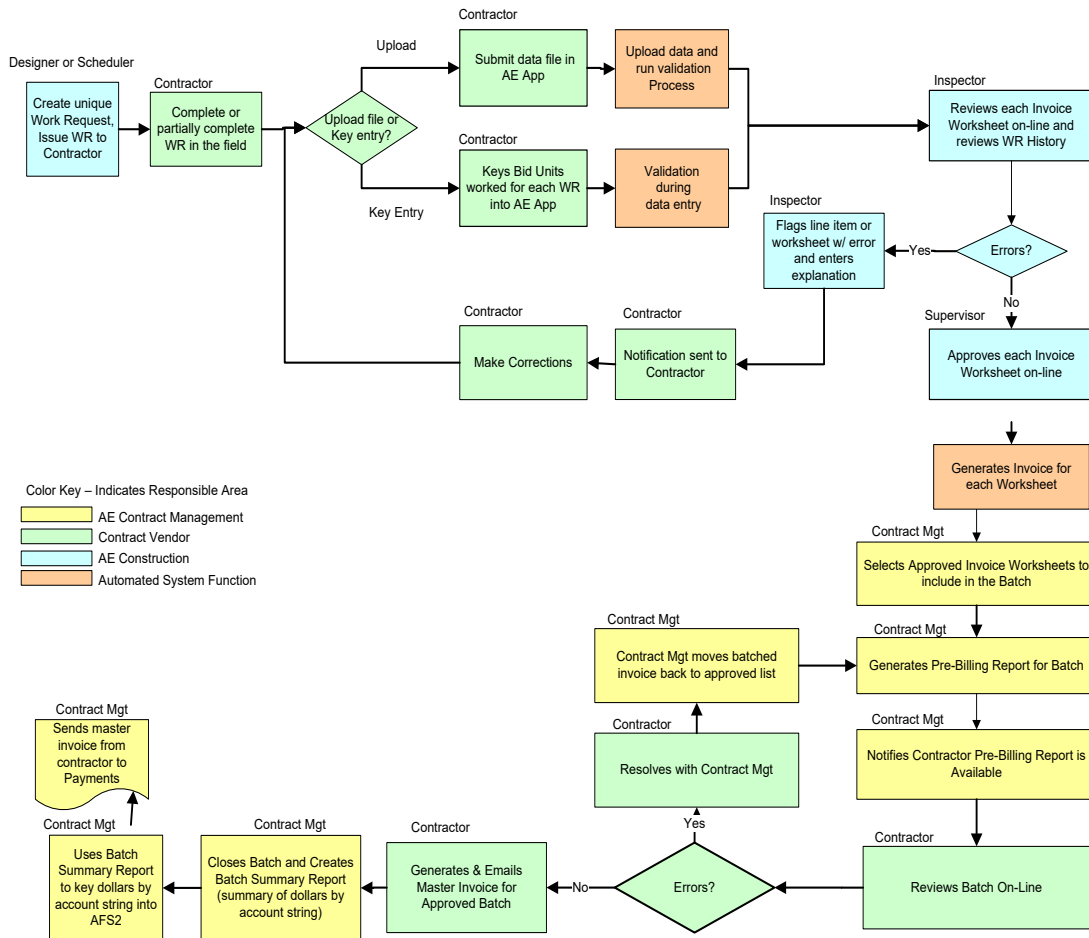
C. SPI does not include publicly available information.

3.1.11. **Securely Erase** – secure deletion of any information, including a recognized destructive delete algorithm, for example, at least seven overwrites with pseudorandom data or at least seven overwrites with zeroes

- 3.1.12. **Security Incident** – any actual or potential unauthorized disclosure of, or unauthorized access to, City Confidential Information; or a violation or imminent threat of violation of computer security policies, acceptable use policies, or compliance requirements under these Data Handling Controls; or violation or imminent threat of violation of industry standard security practices
- 3.1.13. **Secure Service Area** – a physically and electronically secured area, with secure communications, within Contractor’s facility where unencrypted City Confidential Information is secured from unauthorized access

The AE Invoicing Process

Austin Energy (AE) needs specific information from the contractor to create invoices and process the invoices for payment. The process flow chart below depicts the Austin Energy CI roles/responsibilities, and flow. The green-shaded activity boxes represent the contractor's responsibilities for this process. Key to this process is the requirement that the contractor submit invoice data to AE utilizing one of two methods. The contractor may create and submit a file containing invoice data, or the contractor may directly key the invoice data into the AE application.



INVOICING PROCESS

These data fields represent the information required to process invoices.

Data Field	Description
Header Information	
Contractor Invoice ID#	Unique contractor assigned number identifying the invoice
Date	Date worksheet is created
Work Request Number	Austin Energy identifier assigned to every job. This number is provided on all job documents provided to the contractor
Work Location	General or specific job address
Austin Energy Inspector	Name of the Austin Energy inspector responsible for the job
Payment Type	Unit, Hourly, or Lump Sum
Comments (optional)	General comments from the contractor to Austin Energy
General Description (optional)	General description of work performed
Detail Information	
Unit ID	Bid Unit identifier as defined in the Contract
Quantity	Number of units worked
Multiplier	Multiplier for a unit (if applicable)

Sample Text File

Shown in the table below is an excerpt from a sample text file, like the one Austin Energy would require for submittals. This format is only an **example** of the actual file format. Austin Energy ITT staff will work with contractor to finalize file structure.

	<i>invoice #</i>	<i>date</i>	<i>contract#</i>	<i>work location</i>	<i>AE inspector</i>	<i>pa</i>	<i>description</i>	<i>comments</i>	<i>WR#</i>	<i>bid unit</i>	<i>qty</i>	<i>multi</i>
H	1169521	9102004	S010004	3014 S Lamar	Gonzales	H						
D									10201	1.06	1	1
D									10201	1.07	4	1
D									10201	2.01	4	1
D									10201	2.27	4	1
D									10201	2.34	1	1
D									10201	1.04	8	1
H	1169522	9102004	S010004	11213 Research Blvd	Williams	L						
D									10211	22.08	11	1
H	1169523	9102004	S010004	15 Hank Road	Williams	L						
D									10212	22.01	155.27	1
H	1169524	9102004	S010004	721 Barton Springs R	Gonzales	H						
D									10223	1.04	6.5	1
D									10223	2.34	2	1
D									10223	2.28	4.5	1
D									10223	2.01	3	1
D									10223	1.06	2	1
D									10223	1.03	4.5	1
D									10223	1.07	7	1
H	1169525	9102004	S010004	1212 Justin Lane	Franks	H						
D									10228	1.07OT	5	1
D									10228	2.03	16	1
D									10228	2.34	12	1
D									10228	2.28	36	1
D									10228	2.22	19	1

WAGE RATES AND PAYROLL REPORTING

Section 00830

1. PAYMENT

1.1 Classification Definitions, Building and Heavy and Highway

1.1.1 Definitions for Building Construction and Heavy and Highway classifications shall conform to the current "Occupational Information Network (O*NET)" as approved by the U.S. Department of Labor. For interpretive guidance, the Core Task list in O*NET will be used to make prevailing wage determinations. Final classification of workers will be made by the OWNER.

1.2 Minimum Wages

1.2.1 Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) or the \$15.00 minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the \$15.00 minimum wage required.

1.2.2 Such wage rates shall be used throughout the Contract. If a classification is to be used, which is not listed in the attached wage rates, CONTRACTOR shall submit to OWNER rates and classification proposed for use, for approval, prior to performance of the Work.

1.2.3 All laborers and mechanics working upon the Work for this Project shall be paid unconditionally and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by Secretary of Labor under the Copeland Act, Title 29 CFR, Part 3) full wages accrued and when due, computed at rates not less than wage rates bound herein pertaining to type of Work being performed. When Work is of such a nature that both Building and Heavy and Highway wage scales are incorporated into contract, CONTRACTOR shall pay wage rates to mechanics or laborers performing Work in more than one classification at the rate indicated for each classification for time actually worked as determined by area practice applicable to type (Site Construction Crafts or Building Construction Crafts) of Work being performed without regards to skill. Salaried specialists (project superintendent and administrative personnel only) in the permanent employment of CONTRACTOR do not fall under any Wage Classification. A supervisor/foreman who is not exempt under 29 CFR Part 541 and who spends more than a substantial amount of time (20 percent) in a given workweek as a laborer or mechanic must be paid the applicable Wage Rate for the classification of work performed for all hours engaged in such work as a laborer or mechanic.

1.2.4 Wage rates shall be posted by CONTRACTOR at site(s) of Work in prominent, easily accessible places where they can be seen by all workers. The following shall also be posted by the CONTRACTOR: City of Austin wage contact posters (English and Spanish), City of Austin Equal Employment Opportunity posters (English and Spanish), Workers' Compensation Notice (English and Spanish), Texas Payday Law (English and Spanish), City Rest Break Ordinance

Bidding Requirements, Contract Forms and Conditions of the Contract

(English and Spanish), City of Austin Non-Discrimination Statement (related to Title VI of the Civil Rights Act), and Federal Notices, as appropriate.

1.3 Overtime Requirements

1.3.1 No CONTRACTOR, Subcontractor, or Sub-subcontractor contracting for any part of contract Work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he is employed on such Work, to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times their basic rate of pay for all hours in excess of forty hours in such workweek.

1.3.2 Overtime wages must be calculated using the Adjusted Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

2. APPRENTICES

2.1 Locally and Federally Funded Projects

2.1.1 The terms journeyman and apprentice apply to both union and independent workers, and are not intended to imply that these positions are union workers only.

2.1.2 Apprentices and Trainees will be permitted to work as such only when they are registered, individually, under a bonafide Apprenticeship or Trainee program registered with the Bureau of Apprenticeship and Training, United States Department of Labor. The allowable ratio of Apprentices or Trainees to journeymen in any craft classification shall not be greater than the ratio permitted to CONTRACTOR as stated in the registered apprenticeship program standards. Any employee listed on a payroll at an Apprentice or Trainee wage rate, who is not registered as above, shall be paid the wage rate provided in Contract for Work employee actually performed. CONTRACTOR, Subcontractor, or Subsubcontractor shall furnish to OWNER written evidence of registration of his program for Apprentices and Trainees as well as of the appropriate ratios and wage rates, for the area of construction prior to using any Apprentices or Trainees on this Contract.

3. WITHHOLDING PAYMENTS

3.1 OWNER may withhold or cause to be withheld from CONTRACTOR as much of the accrued payments as necessary to pay laborers and mechanics employed by CONTRACTOR, Subcontractors, or Sub-subcontractors the amount of wages required to comply with the Contract. In the event of nonpayment of wages to laborers or mechanics working on the site of the Work of this Contract, OWNER may, after Written Notice to CONTRACTOR, take such action as may be necessary to cause suspension of any further payments or advance of funds to CONTRACTOR until such violations have ceased and until restitution has been made. Payments may also be withheld if CONTRACTOR fails to maintain weekly payroll reports or fails to provide copies in a timely manner upon request of Owner.

4. PAYROLLS

4.1 CONTRACTOR shall keep records showing:

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4.1.1 The name, address and occupation of each worker employed by the CONTRACTOR or subcontractor(s) in the construction of the public work.

4.1.2 The actual per diem wages paid to each worker

4.1.3 Employee Certification. CONTRACTOR, all levels of Subcontractors shall identify in writing, the classification agreed to by all laborers and mechanics employed by them in the execution of the Contract, and pay not less than rates specified in the attached Wage Rate Determination(s). Contractor shall prepare a completed form for the signature of Employee and a witness shall sign the form in the presence of Employee. If work performed by worker is different than the trade classification agreed upon, the worker shall be paid for that work no less than the minimum prevailing wage for that specified trade.

4.1.4 Payroll Deduction Authorization Form. CONTRACTOR, Subcontractor, and Sub subcontractor shall prepare for employee signature a payroll deduction authorization form to identify all payroll deductions excluding those required by statute, such as federal income taxes, Medicare and social security.

4.2 The record shall be open at all reasonable hours to inspection by the officers and agents of the Owner as requested. CONTRACTOR will be responsible to provide copies of records as requested by the Owner within two (2) working days. Payrolls relating to this Work shall be maintained during term of Contract and preserved for a period of three (3) years thereafter by CONTRACTOR for all laborers and mechanics working on the Work.

4.3 A Statement of Compliance, a letter signed and dated by party responsible for supervising the payment of persons employed by CONTRACTOR or subcontractor shall accompany payrolls required by Owner. The Statement of Compliance letter shall identify but is not limited to:

4.3.1 Name of signatory party and title

4.3.2 Name of project, payroll period and

4.3.3 Name of CONTRACTOR or Subcontractor

4.4 The signed letter attests that the payroll complies with 29CFR issued by the Secretary of Labor.

4.5 Federal Funding. In the event that federal funding is used:

4.5.1 Contractor and all levels of Subcontractors shall submit weekly certified payroll reports and signed wage compliance statements to the Owner's designated office no later than seven (7) calendar days after the scheduled payday.

4.5.2 Contractors and all levels of Subcontractors shall pay all "mechanics and laborers" not less often than once per week, for work performed the previous week.

4.5.3 Submit to the Owner's designated office Standard Form 1413, Statement and Acknowledgement, from each subcontractor prior to the subcontractor performing work on the project.

5. NONCOMPLIANCE

5.1 According to Chapter 2258 Texas Government Code Title 10A, a CONTRACTOR or subcontractor(s) who violates this section shall pay to the political subdivision on whose behalf the contract is made, \$60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.

5.2 Confirmed Disciplinary action taken by CONTRACTOR against employees who provide information during an interview or investigation by the Owner on wages received, may result in suspension or debarment from consideration of award of City contracts.

6. AREA PRACTICE

6.1 Heavy and Highway Construction Rates shall be used on this Project, unless the Project consists primarily of Building Construction and Building Construction Rates are to be used.

6.1.1 Building Construction consists generally of all aspects of construction of buildings, which are sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment or supplies, including without limitation the installation of utilities and equipment, both above and below grade level, as well as incidental demolition, grading, utilities, paving and other site work. Buildings need not be "habitable" to be classified as Building Construction and the installation of heavy machinery and/or equipment will not generally change a Building Construction project's classification.

6.1.2 The determination of Building Construction Wage Rates includes all construction trades and work necessary to complete a building, regardless of the number of contracts involved, so long as all such contracts are closely related in purpose, time and place.

6.2 For projects that involve both Building Construction and Heavy and Highway trades, the following classifications shall be used:

6.2.1 A multiple classification shall be used if Building Construction items are more than 20% of the Heavy and Highway project cost.

6.2.2 A multiple classification shall be used if Heavy and Highway Construction items are more than 20% of the Building Construction Project cost.

6.3 Split classifications/multiple wage rate schedules: When construction work requires that an employee perform work under multiple classifications or multiple wage scales, the employer must pay that worker (at least) the highest prevailing wage or the employer payroll records must accurately set forth the times spent performing the work of each classification and under each scale. For those projects that involve both Building Construction and Heavy and Highway trades, the Heavy and Highway wage rates may only be applied to workers when engaged in site work at least five (5) feet beyond the building.

7. TEXAS OPEN RECORDS ACT

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7.1 Unless covered by an exception to mandatory disclosure under the Texas Public Information Act, Chapter 552, Texas Government Code, any and all documents submitted to the City of Austin become Public Records and are, therefore, subject to public disclosure.

Wage Rates for This Project Are Attached

END

WAGE RATES AND PAYROLL REPORTING

Section 00830HH

WAGE RATE DETERMINATION

Heavy and Highway

County Name: TRAVIS

Wages based on DOL General Decision: TX20200007 01/01/2021 TX19 and City of Austin Ordinance #20160324-015

DOL Rate column is for information only. The Total Minimum Wage Rate is derived from the Adjusted Wage Rate Required pursuant to City Ordinance, and can be met using any combination of cash and non-cash qualified fringe benefits, provided the cash component is at least \$15.00/hour.

Classification	DOL Rate For info Only	Adjusted Wage Rate Required Pursuant to City Ordinance	Total Minimum Wage Rate Required
Agricultural Tractor Operator	\$12.69	\$15.00	\$15.00
Asphalt Distributor Operator	\$15.55	\$15.55	\$15.55
Asphalt Paving Machine Operator	\$14.36	\$15.00	\$15.00
Asphalt Raker	\$12.12	\$15.00	\$15.00
Boom Truck Operator	\$18.36	\$18.36	\$18.36
Broom or Sweeper Operator	\$11.04	\$15.00	\$15.00
Cement Mason/Concrete Finisher	\$12.56	\$15.00	\$15.00
Concrete Pavement Finishing Machine Operator	\$15.48	\$15.48	\$15.48
Crane, Hydraulic, 80 tons or less	\$18.36	\$18.36	\$18.36
Crane, Lattice Boom, 80 tons or less	\$15.87	\$15.87	\$15.87
Crane, Lattice Boom, over 80 tons	\$19.38	\$19.38	\$19.38
Crawler Tractor	\$15.67	\$15.67	\$15.67
Directional Drilling Locator	\$11.67	\$15.00	\$15.00
Directional Drilling Operator	\$17.24	\$17.24	\$17.24
Electrician	\$26.35	\$26.35	\$26.35
Excavator 50,000 lbs. or less	\$12.88	\$15.00	\$15.00
Excavator, over 50,000 lbs.	\$17.71	\$17.71	\$17.71
Flagger	\$10.60	\$15.00	\$15.00
Form Builder/Form Setter - Paving & Curb	\$12.94	\$15.00	\$15.00
Form Builder/Form Setter - Structures	\$12.87	\$15.00	\$15.00
Foundation Drill Operator, Truck Mounted	\$16.93	\$16.93	\$16.93
Front End Loader Operator, 3CY or less	\$13.04	\$15.00	\$15.00
Front End Loader, over 3CY	\$13.21	\$15.00	\$15.00

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Laborer, Common	\$10.60	\$15.00	\$15.00
Laborer, Utility	\$12.27	\$15.00	\$15.00
Loader/Backhoe Operator	\$14.12	\$15.00	\$15.00
Mechanic	\$17.10	\$17.10	\$17.10
Milling Machine	\$14.18	\$15.00	\$15.00
Motor Grader Operator - Fine Grade	\$18.51	\$18.51	\$18.51
Motor Grader Operator, Rough	\$14.63	\$15.00	\$15.00
Painter - Structures	\$18.34	\$18.34	\$18.34
Pavement Marking Machine Operator	\$19.17	\$19.17	\$19.17
Pipelayer	\$12.79	\$15.00	\$15.00
Reclaimer/Pulverizer	\$12.88	\$15.00	\$15.00
Reinforcing Steel Setter	\$14.00	\$15.00	\$15.00
Roller Operator, Asphalt	\$12.78	\$15.00	\$15.00
Roller Operator, Other	\$10.60	\$15.00	\$15.00
Scraper Operator	\$12.27	\$15.00	\$15.00
Servicer	\$14.51	\$15.00	\$15.00
Spreader Box Operator	\$14.04	\$15.00	\$15.00
Structural Steel Worker	\$19.29	\$19.29	\$19.29
Traffic Signal Installer/Light Pole Worker	\$16.00	\$16.00	\$16.00
Trenching Machine Operator, Heavy	\$18.48	\$18.48	\$18.48
Truck Driver Tandem Axle Semi-Trailer	\$12.81	\$15.00	\$15.00
Truck Driver, Lowboy/Float	\$15.66	\$15.66	\$15.66
Truck Driver, Single Axle	\$11.79	\$15.00	\$15.00
Truck Driver, Off Road Hauler	\$11.88	\$15.00	\$15.00
Truck Driver, Single or Tandem Axle Dump	\$11.68	\$15.00	\$15.00
*Welders	\$15.97	\$15.97	\$15.97
Work Zone Barricade Servicer	\$11.85	\$15.00	\$15.00

The Wage Compliance information detailed below was excerpted from DOL General Decision TX170016 or other sources.

1. ADDITIONAL TRADE INFORMATION

Unlisted classifications needed for work not listed within the scope of the classifications listed may be added upon the advance approval of Contract Procurement. CONTRACTOR shall submit to City of Austin Contract Procurement the following: classification, a bona fide definition of work to be performed and a proposed wage with sample payrolls conforming to area practice **prior** to the start of the job for that type of work. Proposed trade may not be performed by any trade already listed.

2. WAGES

The Total Minimum Wage Rate may be met by any combination of cash wages and credible "bona fide" fringe benefits paid for by the employer. Overtime must be used in computing overtime pay. Wages must be calculated using the Total Minimum Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

City of Austin Ordinance No. 2016324-015 requires that construction workers are paid a minimum Wage of at least \$15.00/hour. The cash portion of their compensation must meet or exceed this amount.

3. PROPER DESIGNATION OF TRADE

A work classification from the Prevailing Wage Poster for each worker must be made based on the actual type of work he/she performed on the job. In summary the work performed, not the "title" determines the correct worker classification and wage. Each worker must be paid no less than the adjusted wage rate on the wage decision for that classification **regardless** of his/her level of skill (exclusive of a bona fide apprentice currently registered in a DOL approved apprentice program - proof of individual registration must be supplied in advance to the City of Austin).

4. SPLIT CLASSIFICATION

If a firm has employees that perform work in more than one classification, it can pay the adjusted wage rates specified for each classification ONLY if it maintains accurate time records showing the amount of time spent in each classification. If accurate time records are not maintained, these employees must be paid the highest adjusted wage rate of all the classifications of work performed by each worker. Accurate time records tracking how many hours a worker performed the work of one trade and then switched to another trade must be accounted for on a daily basis and reflected on Employer Certified Payroll accordingly.

*WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

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

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

5. WAGE DETERMINATION APPEALS PROCESS

5.1 Has there been an initial decision in the matter? This can be:

- .1 An existing published wage determination
- .2 A survey underlying a wage determination
- .3 A Wage and Hour Division letter setting forth a position on a wage determination

Bidding Requirements, Contract Forms Conditions of the Contract

matter

.4 A conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in **.2** and **.3** should be followed.

5.2 With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determination
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

5.3 If the answer to the question in **.1** is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

5.4 If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

5.5 All decisions by the Administrative Review Board are final.

END

CONSTRUCTION TRAINING PROGRAM REQUIREMENTS

Section 00840

The **City of Austin Construction Training Program (the “Program”)** is intended to train workers on City of Austin’s construction projects in order to develop a pool of qualified, ready-to-work skilled and semi-skilled construction workers. This training commitment is not intended and shall not be used to discriminate against any applicant.

Training Requirement. Establishment of the Construction Training Requirement for each project will be based on project scope, dollar amount, and opportunities available to achieve the training requirements. The requirements will be established either prior to solicitation, or during contract negotiations, using the criteria in Charts A and B. Program requirements will be subject to availability of Trainees and Graduates.

Chart A - Evaluation Criteria
<ol style="list-style-type: none"> 1. Material cost vs labor cost 2. Scope of work 3. Schedule of values (a comprehensive list of work for a particular project) 4. Project duration and schedule 5. Unique aspects of the project 6. Available training programs for the specific training plan 7. Workforce determined by the number of workers that will be on the project enough days to establish a training program.

Chart B – Construction Training Requirements	
Estimated Construction Cost	Apprentice/ On-the-Job Training (OJT) /Construction Ready (CR) Trainee Requirements
\$500K to \$2.5M	2 – Construction Ready Trainees*
Over \$2.5M to \$5M	4 - Construction Ready Trainees*
Over \$5M to \$10M	6 - Construction Ready Trainees*
Over \$10M (Significant Budget)	OJT/Apprentice/Graduate/Trainee Minimum 15%

*These requirements may also be satisfied by workers enrolled in or graduated from DOL registered/approved training programs.

1. DEFINITIONS

1.1 *Capital Contracting Office (CCO)* – The City of Austin’s Office responsible for administering the Construction Training Program

1.2 *City’s Approved Minimum Wage Rate* – a minimum wage rate established by the City of Austin for workers performing construction activities on City of Austin contracts

1.3 *DOL or U.S. DOL* – United States Department of Labor

1.4 *Horizontal Construction Project* – civil construction, such as roads, bridges, and utilities

1.5 *Journeyman* – a fully-trained tradesperson, who may or may not be a union worker, and may or may not have completed a DOL-approved OJT Training Program

1.6 *Trainee* – For the purposes of the City of Austin Construction Training Program, those individuals enrolled in or graduates of a DOL-approved OJT Training Program

1.7 *On-The-Job-Training (OJT) Program* – a DOL-approved training program as described under 29 CFR 5.16

1.8 *Training Plan* – a plan identifying how a contractor intends to meet its training requirement, subject to OWNER’s review and approval

1.9 *Construction Training Program Training Report* – a form provided by the OWNER which documents the contractor’s training activities and trainee status.

1.10 *Workforce* – the estimated number of full-time employees to be employed on the project, taking into consideration training opportunities

2. TRAINING REQUIREMENTS

2.1 For Horizontal Construction Projects with a construction budget over \$10,000,000, a minimum of 15% of the Workforce are to be Graduates of or current enrollees in a DOL-approved OJT Training Program or DOL-certified Bilingual Training Program. Graduates must not satisfy more than half of the training requirement.

2.2 Any OJT Trainees enrolled in a DOL-approved training program must be paid at least the percentage of the prevailing journeyman wage rate as specified in the training program for that trade, but may NOT be paid less than the City’s Approved Minimum Wage Rate.

3. CONTRACTOR’S RESPONSIBILITIES

CONSTRUCTION TRAINING PROGRAM REQUIREMENTS

Section 00840

3.1 Prior to the issuance of the Notice to Proceed, the Contractor shall provide a Training Plan for OWNER's approval, listing the anticipated trades to be used. The plan shall specify how the CONTRACTOR intends to satisfy its contract requirement. The CONTRACTOR will have fulfilled its responsibilities under Section 00840 of the contract by having complied with the CONTRACTOR's Training Plan approved by the OWNER.

3.2 In the event that a CONTRACTOR subcontracts a portion of the contract work, CONTRACTOR shall determine if the requirements of the program will be assumed by the subcontractor(s). The CONTRACTOR should ensure that this training provision is made applicable to such subcontract; however, the CONTRACTOR shall retain the responsibility for meeting the training requirements imposed by this provision.

3.3 CONTRACTOR shall provide training in the construction trades. CONTRACTOR may pay a percentage of the prevailing wage rate for each trade as specified in the DOL-approved training program, but not less than the City's Approved Minimum Wage Rate.

3.4 OWNER will provide a list of available DOL-approved training organizations. The CONTRACTOR shall contact those training organizations as needed in order to recruit workers for the program.

3.5 The Trainees may be distributed among the work classifications on the basis of the CONTRACTOR's needs and the availability of journeymen in the various classifications.

3.6 The CONTRACTOR shall submit a Training Report to OWNER for each Trainee no later than 30 calendar days after the Notice-to-Proceed. This Training Report must be submitted monthly thereafter for the duration of the project. This shall indicate work classification and graduation details, as well as training status changes. If a Trainee is terminated or resigns, the CONTRACTOR is required to make a reasonable effort to replace the Trainee within 30 calendar days.

3.7 For each trainee performing work on the project, the CONTRACTOR must submit to CCO the following:

3.7.1 evidence of enrollment in the appropriate training program,

3.7.2 completed Employee Certifications, as stipulated in Section 00830 (Wage Rates and Payroll Reporting), for each Trainee,

3.7.3 summary of planned training for the enrollee from the training provider

3.8 The CONTRACTOR must provide the Trainee a copy of the training program.

3.9 The Trainee(s) shall remain on the project as long as training opportunities exist or until the training is completed.

3.10 CONTRACTOR's Reasonable Efforts to Comply. The CONTRACTOR will be responsible for demonstrating the steps taken to meet the training requirement. If CONTRACTOR has fewer Trainees employed on the project than specified in the Training Plan, the CONTRACTOR must submit evidence of recruitment efforts. These shall include the following:

3.10.1 contacts made to OWNER for a current list of approved training providers

3.10.2 log of applicants contacted

3.10.3 log of training organizations contacted

3.10.4 documented outreach efforts made to all available training organizations (per current OWNER list) to satisfy the requirement

3.10.5 documentation of CONTRACTOR's recruitment efforts performed until program requirements are met or project is complete as part of the Construction Training Program Training Report

4. NON-COMPLIANCE

4.1 Lack of demonstrated reasonable effort to comply with the Construction Training Program will be reflected in the Contractor's Performance Evaluation and may impact the receipt of future business with the City of Austin.

Notice to Bidders: This form, Addendum, Section 00900, is included for your information only. If an actual Addendum is issued for this project, the format shown below will be used. Additionally, issued addenda will be bound at the beginning of the Project Manual following the Table of Contents at the time of contract execution.

ADDENDUM NO. _____

Date _____, _____

City of Austin

Project Name _____

C.I.P. No. _____ IFB No.: _____

This Addendum forms a part of the Contract and corrects or modifies original Bid Documents, issued on _____, _____. **Acknowledge receipt of this addendum in space provided on bid form.** Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

B. Drawing Revisions:

This addendum consists of ____ page(s)/sheet(s).

Approved by OWNER

Approved by ENGINEER/ARCHITECT (as applicable per license requirements)

END

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810AE.

1.2 DESCRIPTION OF WORK

A. This section describes the Project in general and provides an overview of the extent of the Work to be performed by the CONTRACTOR. Detailed requirements and extent of Work is stated in the applicable Specification Sections and shown on the Drawings as contained herein or as per Work Assignment. CONTRACTOR shall, except as otherwise specifically stated herein or in any applicable part of these Contract Documents, provide and pay for all labor, materials, equipment, tools, construction equipment, and other facilities and services necessary for proper execution, testing, and completion of the Work in accordance with all applicable Federal, State, and local laws, rules and regulations.

B. Any part or item of the Work which is reasonably implied or normally required to make the installation satisfactorily operable shall be performed by the CONTRACTOR and the expense thereof shall be included in the applicable unit prices or lump sum prices bid for the Work. It is the intent of these Specifications to provide the OWNER with the complete system. All miscellaneous appurtenances and other items of Work that are incidental to meeting the intent of the Specifications shall be considered as having been included in the applicable unit prices or lump sum prices bid for the Work even though these appurtenances and items may not be specifically called for in the Bid Documents.

C. The Work requires furnishing of all tools, labor, materials, equipment, and miscellaneous items necessary to complete the construction or as provided by the Owner for each Work Assignment.

1.2.1 SCOPE OF WORK

A. Underground Transmission / Distribution Services:

The proposed Contract work includes virtually all facets of electric distribution, transmission, and substation underground services. The Contractor shall, at the direction of Owner, furnish all supervision, labor, tools, safety devices, equipment, materials, and conveyances necessary to perform the following work assignments within the time frame(s) established by the Owner for each work assignment:

1. Trench excavation; conduit and/or cable installation, trench backfill, surface restoration and cleanup (all in accordance with OSHA or other local, State or Federal trench or excavation safety regulations or ordinances)
2. Repair / maintain underground electric facilities
3. Install precast / cast-in-place pull boxes, manholes, trench systems

4. Install transformer pads and other various types of reinforced concrete structures as requested
5. Collect and dispose of as directed non-hazardous dirt and other material
6. Install streetlight foundations, poles, arms, fixtures, and wiring
7. Drill (all types) and install drilled pier and slab foundations
8. Install foundations and underground facilities required for electrical substations that includes, but not limited to, electrical equipment, and support structure installations
9. Install foundations and underground facilities required for transmission lines including right-of-way construction and maintenance
10. Excavating Pole Holes
11. Clean Vaults and Manholes

Contractor shall be equipped and ready to perform excavation(s) and/or drill in all types of soil conditions. Contractor shall furnish all management, supervision, labor, equipment, machinery, tools, supplies, insurance, accessories, support services, and perform incidental work necessary to complete the work embraced in this Contract. Contractor shall be responsible for the care and protection of all materials and partially completed work until all work is completed and accepted by the Owner. Contractor shall insure and require that all Contractor employees shall wear at all times the proper personal protective equipment and clothing (Reference Section 0810AE, Paragraph 6.11.9). Contractor shall maintain compliance with any updates and with the current National Electrical Safety Code at Contractor's cost.

- a. Work Descriptions: The following work descriptions shall be used under/in the "Description or Location" line in Contractor Invoicing (CI). The address, if there is one, can be stated after the work description, for the invoice. Substation names shall be stated under/in the "Description or Location" whenever work is performed at a Substation. Whenever materials such as concrete or specialty materials are used for a work assignment, the type and amount of materials shall be captured as stated on the 0300CSP AE Proposal Form or as negotiated (in a case where specialty materials are approved) in CI. Any other materials procured, delivered and/or received by the Contractor, regularly needed by the Owner, and used by the Contractor, shall be noted accordingly, and comply with Article 1.11. Materials Furnished by Owner. Work assigned by Austin Energy Civil Group shall not be reassigned by any other Austin Energy Group without gaining permission from the Austin Energy Civil Project Manager.
1. Streetlight Foundation & Pole Installation (SF&PI):
 - a. Streetlight Foundation work shall consist of locating of existing utilities as required, loading, and transporting steel support piling, excavation of the

shaft foundation, support piling installation, and up to ten (10') feet of conduit installation in order to tie to existing conduit. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Specialty equipment shall be secured as per the Specialty Services, Item 15 of this section. Materials shall be paid as stated on the Pricing Submittal, for materials supplied by the Contractor.

- b. Owner-Furnished material shall include anchor bolts, ground rods, embedded steel support piling, conduit, conduit fittings, PVC bonding solvents.
- c. Streetlight Pole Installation work shall consist of unpacking, loading, transporting and installation of streetlight pole, top plate, hand hole cover, pole number, arm(s), fixture(s), photocell(s), lamp(s), wiring and grounding. Compensation shall be per the appropriate Item on the 0300CSP AE Proposal Form Category Three (3). Materials shall be paid as stated on the Pricing Submittal, for any materials supplied by the Contractor.
- d. Owner-Furnished material shall include pole, pole number, epoxy, arm(s), fixture(s), cable, photocell(s), lamp(s), hardware, conduit, conduit fittings and PVC bonding solvents.
- e. Owner will make all terminations at fixture(s) and connections for fusing devices.

2. Pole Hole Excavation (PHE)

- a. Excavate and clean out Pole Holes as required by machine and/or by hand, for wood poles, concrete poles, and metal poles, that generally range from 35 feet in length to 105 feet in length. Excavation may be required in soil, gravel, or rock. All work shall be performed in a safe and efficient manner.
- b. Should traffic control devices be required when in or near travel lanes, traffic control devices shall be supplied by the Contractor.
- c. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Specialty equipment shall be secured as per the Specialty Services, Item 15 of this section.

3. Underground Residential Distribution (URD):

- a. This work shall consist of the installation of an underground electric service conduit system including locating existing utilities, trenching, conduit placement, backfill, surface restoration, installation of concrete transformer foundations, and installation of precast pull-boxes and installing primary and/or secondary risers. Contractor upon owner's request shall supply rebar, sand, and concrete. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Materials shall be paid as stated on the 0300CSP AE Proposal

Form, for any materials supplied by the Contractor.

- b. Owner-Furnished materials shall include all conduit, conduit fittings, forms or form material, PVC bonding solvents, precast pull boxes w/ covers, ground rods, and ground wire and pull string.
 - c. A joint use trench agreement may be developed between the Owner and other wire utilities. It is anticipated that the utilities will share the cost of joint trenches (excavation, backfill, & cleanup). Contractor shall be responsible to invoice other utilities and interface with those utilities to schedule their facility installation.
4. Excavation Residential Distribution Trench (ERDT):
- a. ERDT trench excavation shall consist of locating existing utilities, trenching, sand bed/cover conduit/cables, and backfill. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Materials shall be paid as stated on the 0300CSP AE Proposal Form, for materials supplied by the Contractor.
 - b. Owner-Furnished material shall include conduit, conduit fittings, and PVC bonding solvents and pull string.
5. Handhole, Manhole, Pull Box, or Transformer Pad Installations (HH, MH, PB, TPI):
- a. Work shall consist of locating existing utilities (if required), excavation, placement, conduit installation, backfill and cleanup. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Materials shall be paid as stated on the 00300CSP AE Proposal Form, for materials supplied by the Contractor.
 - b. Owner-Furnished materials shall include all conduits, conduit fittings, PVC bonding solvents, precast handholes, manholes, pull boxes, covers, ground rods, ground wire, and forms or form material.
6. Riser Installation (RI):
- a. Riser installation work shall consist of locating of existing utilities (if required), trenching for elbow and conduit tie in connection, installation of galvanized or PVC 90° elbow and two sticks of galvanize or PVC conduit for each riser up pole, concrete placement, trench backfill at pole. Owner shall supply the required amount of concrete. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor. Materials shall be paid as stated on the 00300CSP AE Proposal Form, for materials supplied by the Contractor.
 - b. Owner-Furnished material shall include all PVC/galvanize conduit, conduit fittings, and PVC bonding solvent.

7. Electric Duct Bank (EDB):

- a. This work shall consist of locating existing utilities, trench excavation for primary and/or secondary electrical conduit(s) parallel to, across, or in established streets and right of ways classified as Local or Collector, Arterial, Central Business District, Side / Rear Property Line, or Right-of-Way. Electric Duct Bank work shall consist of installation of up a minimum of one (1) to sixteen (16) conduits of various sizes and configurations for a major power conduit system including excavation, sand bed or concrete encasement of conduit, backfill, surface restoration, installation of precast manhole, and conduit ties to existing conduit or manholes. Contractor shall assume trench depth to be the depth required for the conduit bank plus a cover of a minimum of thirty-six (36") inches for primary and secondary electrical conduit. In addition, manhole excavation should be as required by applicable specification. Compensation shall be for man hours worked at the Unit Price stated. Equipment hours required for the work shall be at the Unit Price stated, unless the work requires specialty equipment not supplied by the Contractor.
- b. Contractor, upon direction by Austin Energy Project Manager, may supply sand, 3/8" concrete, controlled low strength material, Class "A" and/or "J" concrete. Materials supplied by the Contractor shall be paid as stated on the Pricing Submittal, for materials supplied by the Contractor.
- c. Owner-Furnished material shall include conduit, conduit fittings, conduit spacers, PVC bonding solvents, ground wire, precast manhole, steel manhole ring, pull string and cover. Sand or concrete may be supplied by Owner as directed by the Austin Energy Project Manager.

8. Surface Restoration (SR):

- a. Surface Restoration is the restoration of sidewalk, paving or final grade areas which have been disturbed, damaged, or removed during excavation or during other construction related activities. Contractor shall supply concrete, pavers, rebar, wire-mesh, asphaltic paving, or other needed materials.
- b. Owner-Furnished material shall include all forms or form materials.
- c. Contractor, upon direction by Austin Energy Project Manager, may furnish all materials, labor, and equipment to restore the sidewalk or asphalt paving surface in accordance with the required specification(s). Compensation of Standard No. 1100S-5 Full Depth Asphaltic Concrete Pavement Trench Repair, shall be for man hours worked, Equipment hours required for the work, and Materials if supplied by the Contractor at the Unit Prices listed in the respective Categories. In the event that the work requires specialty equipment not supplied by the Contractor, and upon approval by Owner, compensation shall be under Category 10.

Compensation for asphalt paving shall be at the Unit Prices in Category 6. These Unit Prices are inclusive of all labor, equipment, and materials required

for the task. For 300 foot or under per location, Unit 6.0 applies. For over 300 square feet per location, Unit 6.2 applies (example: one square foot of trench repairs two (2) inches thick per square foot, would be billed at the square foot unit price 6.1). If a total depth of 3 inches is required, Contractor would also bill per sq. feet under unit price (unit 6.2).

9. Erosion Controls (EC):

- a. Erosion controls shall be constructed in accordance with the specifications herein or as indicated on the construction detail drawing.
- b. Contractor shall furnish all materials, labor, and equipment to install erosion controls. Compensation shall be per the appropriate Item on the 00300CSP AE Proposal Form, Category Seven (7).

10. Cable Installation (CI-URD):

- a. Underground Residential Distribution (CI-URD): This work shall consist of installing **or** removing primary and/or secondary cables in subdivisions including the pickup, transportation, and pulling or removing of cable in conduit system and returning of cable reel to OWNER's storage area. Compensation shall be per the appropriate Item on the Pricing Submittal, Category Eight (8).
- b. Owner-Furnished materials shall include cable and cable soap.
- c. Network Power Cable (CI-NPC): This work shall consist of Contractor employees assisting Owner in the installation of network power cables, which includes reel pickup, transportation, and cable guidance, reel assistance and other related duties as assigned by Owner. Compensation shall be for man hours worked and equipment hours required for the work.

11. Pad-Mount Transformer Setting Securing/Removal (PMTSS or PMTRS):

- a. Pad-Mount Transformer Setting shall consist of installing and securing pad-mount transformers on existing transformer foundations/pads, which includes loading, transporting, unloading, setting, and securing. Compensation shall be per the appropriate Item on the 00300CSP AE Proposal Form, Category 8.3.
- b. Pad-Mount Transformer Removal shall consist of removal of secured pad-mount transformers on existing transformer foundations/pads, which includes loading, transporting to an Owner Yard as directed, and unloading. Compensation shall be for man hours worked and equipment hours required for the work.
- c. Owner-Furnished material shall be pad-mount transformer and anchors.

12. Right of Way Gates (ROWG):

- a. This work shall consist of locating existing utilities, installation of gateposts with bracing and termination of existing fencing at gate, and gates.
 - b. Owner-Furnished material shall include gates, gate hardware, gatepost, wood braces, ground wire, chain and locking devices.
 - c. Compensation shall be by the 00300CSP AE Proposal Form, Category Nine (9). Install Right of Way (R-O-W) Gate.
13. Capital Improvements to Owner's Facilities (CIOF):
- a. Contractor may be required to make certain capital improvements to the Owner's Facilities. Such improvements would be in support of the Contractor's or Owner's underground transmission and distribution services work, facility security or facility protection, or in support of moving Contractor crews and equipment to OWNER's yards.
14. Manhole or Vault Pumping and Cleaning (MHPC or VPC)
- a. This work shall consist of pumping, cleaning, and vacuuming Manholes or Vaults. Contractor shall supply all equipment necessary to pump water, remove mud or other debris from the Manholes or cleaning and vacuuming Vaults. Since these activities may be considered confined space locations, Contractor shall provide testing equipment necessary to detect harmful gases and verify access to these locations can safely occur. Testing equipment shall meet current and/or future OSHA requirements. Compensation shall be for man hours worked and equipment hours required for the work. Testing equipment shall be considered tools of the trade and no compensation paid for use. If a vacuum unit is utilized to perform the work, it will be included in the compensation, which shall be for man hours worked and equipment hours required for the work.
15. Specialty Services Subcontracting (SSS):
- Contractor shall be responsible on occasions for providing services to Owner that are not itemized in the 00300CSP AE Proposal Form and which may need to be provided through a subcontractor. These services may be of a specialized nature or may be services, which Contractor is not able to provide directly. Contractor shall be responsible for the quality, accuracy, timeliness, and cost control of all subcontractor services. Such services shall be requested directly by Owner's Distribution/Transmission Electric Civil Project Manager. With Owner approval, Contractor may elect to fulfill certain tasks and assignments through use of a subcontractor, or directly with own forces.
- a. The Contractor shall be responsible for providing Specialty Services Subcontracting subsequent to the Prime Contract and may be provided by a subcontractor. These services may be services which the Contractor cannot supply, or of a specialized nature.

- b. For selection of a specialty services subcontractor to supply a specialty service, the Contractor will be required notify everyone from the availability list, but secure three (3) bids for these services where the estimated cost exceeds \$1000. These bids shall be unitized and quantified and presented to the Austin Energy Project Manager and Contract Administrator for review and compliance with the Contract and shall include the Contractor's recommendation for award. MBE/WBE requirements shall be met by the Contractor for all subcontracted Specialty Services. When documenting SSS costs in Contractor Invoicing (CI), under/in the "Description or Location", the Contractor shall add the Work Descriptions, from Scope of Work Article 1.2.1. A, 1,11, a above, or the Substation Name after the SSS designations. The following service descriptions, or one's not included, shall also be stated as described above:

Such services include but are not limited to:

- Concrete Testing and/or Inspection
- Fence Construction (all types)
- Right-of-Way Clearing / Maintenance
- Road / Driveway / Sidewalk Installation & Paving
- Horizontal Boring < 36"
- Horizontal Boring > 12"
- General Construction
- Traffic Control
- Foundation Construction
- Steel Erection
- Control House Installations, Civil Specialty Services
- Solar Reflector Installations, Civil Specialty Services
- General Labor
- Surveying
- Site Security

16. Specialty Material and Supply Subcontractors (SM-SSUB):

Contractor shall be responsible, on occasion or when required, to provide Owner with special materials and supplies to be incorporated into project(s). Such requirements may also be made to meet unanticipated or emergency situations. For selection of a specialty material and supply subcontractors to supply materials directly, the Contractor will be required to notify everyone from the availability list, but secure three (3) bids for these materials or supplies where the estimated cost exceeds \$1000. These bids shall be unitized and quantified and presented to the Austin Energy Project Manager and Contract Administrator for review and compliance with the Contract and shall include the Contractor's recommendation for award. MBE/WBE requirements shall be met by the Contractor for all subcontracted Specialty Material or Supplies. Substation names shall be stated under/in the "Description or Location" whenever work is performed at a Substation. Invoices for Specialty Materials and Supplies shall be attached to all billings

and taxes not included, since the City is tax exempt. The Contractor shall also state the markup amount stated in the 00300CSP AE Proposal Form.

17. Rental Equipment (REQUIP):

On occasions Contractor will be required to obtain equipment on a rental basis that is not listed in the Hourly Rates of the 00300CSP AE Proposal Form. Such equipment shall be required in order to meet the requirements of the work assigned. The Contractor shall be required to rent the needed equipment by first contacting the approved MBE/WBE subcontractors to see if they have the needed equipment and have provided the Contractor their rental rate prior to the execution of the Work Assignment. Should the Subcontractor not have the needed equipment, the Contractor shall notify everyone from the availability list, but secure three (3) quotes from equipment suppliers. The lowest responsible quote may be used for securing the equipment and the Contractor shall provide copies of the quotes to the Contract Administrator for review for Contract compliance and concurrence with the Contractors recommendation for award. MBE/WBE requirements shall be met by the Contractor for all subcontracted Rental Equipment. The Contractor shall also state the markup amount for Rental Equipment stated in the 00300CSP AE Proposal Form., for equipment not shown in the Hourly Rates of 00300CSP AE Proposal Form.

18. Additional Services – Lump Sum (AS-LS)

Owner may request related Additional Services be provided on a Lump-Sum Basis. If so requested, Contractor shall submit a Lump Sum price for the specified additional services with full cost development, including anticipated labor scope, authorized expenses, Subcontractor usage and cost, and associated markups in accordance with those accepted by City in the 00300CSP AE Proposal Form. Any requests for Contractor to develop lump sum pricing shall require the written approval of the Austin Energy Project Manager and Contract Administrator in writing and must be clearly in the best interest of the Owner. For mutually agreed Lump Sum projects/work, the Contractor shall provide properly itemized costs, supported by sufficient substantiating data, including documentation by subcontractors performing the work, to permit evaluation. Lump Sum quotes should not include taxes since the Owner is tax exempt. MBE/WBE requirements shall be met by the Contractor for all subcontracted Additional Services.

19. Subcontractor Labor and Equipment Services Used as Supplement to Contractor's Hourly Services (Standard and Non-Standard Work Assignments): Labor and Equipment provided by the Subcontractor, which are specifically identified in the 00300CSP AE Proposal Form, shall be invoiced at Contractor's Hourly Rates for labor and equipment. Assigned work under the hourly rates for labor and equipment may be for work for Distribution and Transmission Services under the Standard and Non-Standard Work Assignments.

1.2.2 LOCATION OF PROJECT

The Project Location will be provided at the time of the Work Assignment.

1.3 CONTRACTOR'S REQUIREMENTS

A. The Contractor shall perform all work properly issued by Owner in a timely and efficient manner, based on work for each work assignment, in accordance with Owner's schedule. The Contractor may be required to mobilize its forces on short notice from Owner. The Contractor shall use its best efforts to comply with all requirements of the Owner in the performance of this Contract. Prompt response and timely execution of the work, with the ability to transition from one project to the next with appropriate labor and equipment, based on the priority of the projects as directed by Austin Energy Project Manager, both routine and during periods of emergency or interruptions of electric service, is the essence of this Contract. The Contractor's work force shall be available at all hours day or night, regardless of weather conditions to perform all services required under this Contract.

B. The response time for these emergency calls to the required reporting location shall be 1.5 hours. Failure by the Contractor to respond to requests of Owner as herein described may be deemed a breach of this Contract.

C. The Contractor shall comply with all minimum labor and equipment requirements and be ready to perform assigned services in all areas within 30 days of Contract execution, unless specified otherwise by Owner.

D. **Work Zones:** The work sites will be divided geographically into a Northern and Southern Zone. The Northern Zone generally includes that portion of Austin Energy's electric utility service area north of Martin Luther King Jr. Boulevard, extending out to the eastern and western service area boundaries. The Southern Zone includes that portion of the Austin Energy Service Area south of Martin Luther King Jr. Boulevard, extending out to the eastern and western service area boundaries. See Typical Work Zone Areas - 1010 Attachment 4 for a map of the primary service areas. Austin Energy reserves the right to assign Contractor work outside of an assigned geographic work zone in an emergency or if otherwise required by Austin Energy. The Contractor performing the services will be responsible for the warranty of the Services and Deliverables.

E. **Coverage Area:** The geographical area in which the work is to be performed lies generally within the Austin Energy's electric service territory. However, the Contractor(s) may be required to manage all distribution within the electrical system easements, rights-of-way, and substation facilities or generating plants either owned or operated by the Austin Energy outside the service territory, at Austin Energy's request.

F. **Easements:** The Utility easements and rights of way may be adjacent to public streets and roads or may be situated along the rear or side lot lines of individual properties. Access to easements may be limited due to the construction of property owner fences and other obstructions.

G. Execute all Work, including excavation, installing pipe, backfill, miscellaneous concrete and testing. The Work of this Contract is specified in the City of Austin Standard Specifications, Special Provisions and Special Specifications listed in the Table of Contents.

H. Secure all construction-related permits, other than those provided by OWNER as described in paragraph 6.6 of Section 00810AE, Supplemental General Conditions, and pay for the same.

I. Arrange for the necessary temporary water and electric service and pay for these services and all water and electricity consumed during the construction Work.

J. Provide adequate temporary sanitary facilities.

K. Communications: Contractor shall furnish and maintain properly functioning cellular phones to Contractor personnel (Foreman and Supervisor at a minimum) capable of consistent communication service in all areas Work may be performed under this Contract. All listed cellular phone units shall be functional within fifteen (15) calendar days after execution of the Contract. City ordinances and/or laws concerning the use of hand held electronic devices and/or phones while operating a vehicle shall be adhered to.

Contractor must provide operator with a working cellular phone with the contact number being provided to the appropriate Owner representative prior to its use. Failure of Contractor personnel to have a properly working cellular phone may result in immediate removal from the job site, at the sole determination of Owner. City ordinances and/or laws concerning the use of hand held electronic devices and/or phones while operating a vehicle shall be adhered to.

1.4 EASEMENTS AND RIGHT-OF-WAY

CONTRACTOR shall confine his construction operations within the limits indicated on the Drawings, and shall use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies so as to cause the least possible damage to property and interference with traffic. If the CONTRACTOR requires additional easement for his operations, the CONTRACTOR is solely responsible for acquisition and maintenance of the easement. No additional compensation will be provided by the OWNER.

A. Easements - Easements across private property are indicated on the Drawings. CONTRACTOR shall set stakes to mark the boundaries of construction easement across private property. The stakes shall be protected and maintained until completion of construction and cleanup.

B. Rights-of-Way - Permits for Work in rights-of-way shall be obtained by the CONTRACTOR. All Work performed and all operations of CONTRACTOR, his employees, or subcontractors, within the limits of railroad and highway rights-of-way, shall be in conformity with the requirements and be under the control (through OWNER) of the

railroad or highway authority owning, or having jurisdiction over and control of, the right-of-way in each case.

1.5 OPERATION OF EXISTING FACILITIES

Existing water and wastewater facilities shall be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained from OWNER in advance, portions of the existing facilities may be taken out of service for short periods corresponding with periods of minimum service demands.

CONTRACTOR shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

1.6 CONNECTIONS TO EXISTING FACILITIES

Unless otherwise specified or indicated, CONTRACTOR shall make all necessary connections to existing facilities including structures, drain lines, and utilities. In each case, CONTRACTOR shall receive permission from OWNER or the owning utility prior to undertaking connections. CONTRACTOR shall protect facilities against deleterious substances and damage.

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials and labor shall be on hand at the time of undertaking the connection. Work shall proceed continuously (around the clock) if necessary, to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

1.7 UNFAVORABLE CONSTRUCTION CONDITIONS

No portion of the work shall be constructed under conditions which adversely affect the quality or efficiency thereof unless special means or precautions are taken by CONTRACTOR to perform the work in a proper and satisfactory manner.

1.8 STANDARD AND NON-STANDARD WORK ASSIGNMENTS

Determination as to whether the work is a Standard or Non-Standard work assignment will be made by the Owner's designee prior to assigning the work assignment to the Contractor. If significant unforeseen scope changes are required by the Owner after a Standard Work Assignment has been assigned, Owner's designee will re-evaluate the project classification and may change it to Non-Standard. If the Contractor does not agree with the final project classification, the Contractor may appeal the determination by contacting the Austin Energy Project Manager and the Contract Administrator, for review for Contract compliance. The appeal must be in writing prior to starting the work, or if changes are made after work has begun, after the work assignment is complete.

A. Standard Work Assignment:

Guidelines to be applied for the purpose of determining whether a work assignment will be Standard or Non-Standard work. The following guidelines are for Standard Work Assignments:

1. An establish unit price for the work exists.
2. The terrain at the work site is such that it can be negotiated by road vehicles, such as a pickup truck, and will not substantially hinder Contractor's productivity.
3. The Contractor is not required to move or remove fixed property (such as sheds, fences, etc.) in the right of way in order to complete the project.
4. If the work is not on the front property line but is accessible by Contractor's equipment.
5. No significant design changes are required to the work assignment after Contractor has commenced their work at the site.
6. There are no significant delays caused by either the need to interface with a customer, other than normal advanced notification and job site explanations.

B. Non-Standard Work Assignments:

The following guidelines are for Non-Standard Work Assignments:

1. No established unit price for the work exists.
2. The terrain at the work site is such that it cannot be easily negotiated by road vehicles, such as a pickup truck, and will substantially hinder Contractor's productivity.
3. The Contractor is required to move or remove fixed property (such as sheds, fences, etc.) which are in the right of way and are included as part of the project scope.
4. If the Work is not on the front property line and it is not reasonably accessed by Contractor's equipment.
5. Significant design changes are required to the work assignment after Contractor has commenced the work at the site.
6. There are significant and unexpected delays.

Note: If Contractor fails to give Customer the required advance notification (this Section, Article 1.19 Paragraph D "Notification"), then the OWNER will not be responsible for any resulting delays due to Customer interference.

C. Schedule Changes and Rush Jobs:

From time to time, scheduled work assignments will have to be re-prioritized and the Contractor will be given a rush work assignment, which will take priority. If the work assignment is a new work assignment, which has not been on Contractor's priority list, and the Contractor is required to demobilize from a current work assignment and mobilize for the rush work assignment, the Owner will pay for the hourly cost during demobilization. If, however, the work assignment is not completed by the need date, unless otherwise approved by Austin Energy, the cost of demobilizing from current work in order to move to a work assignment, which has become a rush, will be at the Contractor's cost.

D. Work Crew Status and Routing

Contractor shall provide daily, on a form approved by OWNER, their work crew(s) status and work location(s). This reporting must be submitted to the OWNER's Austin Energy Supervisor's, Distribution/Transmission Electric Project Manager (or their designee) and the Contract Administrator, for review for Contract compliance, in writing prior to starting the work and prior to the start of each workday and no later than 8:00 a.m. of the workday.

A list of the Owner's Project Manager, Supervisors, and Contract Administrator representatives shall be given to the Contractor for contact purposes. The list will be updated if and when personnel changes occur. Any changes to the work schedule shall be noted by the Contractor and a revised schedule submitted the next day to the Owner's representatives stated above.

E. Contractor shall attend to the progression and completion of the work in the most efficient manner in accordance with the Contract. At all times during performance of the work, Contractor shall have a competent English-speaking Supervisor or Crew Leader on the worksite and such assistants as necessary to properly supervise and direct the work. Instructions and notices given by the Owner to Contractor's superintendent shall be deemed delivered directly to Contractor. Changes in work scope, however, shall be in writing and shall be signed by the Austin Energy Project Manager or their designee. If Contractor's supervisory personnel are unable to properly direct the progress of the work or adequately supervise and control Contractor's workers, the Owner may, in writing, request the Contractor to replace the Supervisor. Any change in the work scope shall be documented in writing prior to beginning the work.

1.9 DETERMINATION OF SOIL CLASSIFICATION (DIRT OR ROCK)

A. Soil Classification Rule:

Classification Rule: Soil classification will generally be considered as being rock West of Interstate Highway 35 and will be considered as being dirt East of Interstate Highway 35.

However, these soil conditions assumptions will not hold true in all cases. If the actual soil condition is substantially different from that designated by the Classification Rule, either the Contractor or the Owner may request a change in classification to more appropriately reflect actual conditions; however, the change will be at the discretion of the Owner.

B. Request for Change in Soil Classification:

A request for change in classification must be submitted in writing to Owner's Distribution/Transmission Electric Project Manager, or their designee, with the signatures of the Contractor and the OWNER's Field Inspector. Alternatively, the Contractor or Owner may submit other evidence, such as photos, to demonstrate that a change in classification is warranted. The provision for changing soil classification is intended to be used for work assignments in which an erroneous soil classification would result in a substantial difference in the invoice (\$1000 or more).

C. Trench Excavations and Drilled Holes:

For trenches or drilled holes, it is sometimes the case that some of the work is in dirt and some is in rock. Provided the work is significantly large to warrant a change in classification, the work may be reclassified based on the Owner's representatives observed percentage of rock and dirt, and if required, the invoicing rate adjusted accordingly.

1.10 COORDINATION OF WORK

Owner may contract with others for the performance of other work at the site. Contractor shall cooperate with Owner and coordinate with other contractors for site access, transportation, utilities, material storage, traffic, and parking.

1.11 MATERIALS FURNISHED BY OWNER

Owner-Furnished materials entering into the permanent construction shall include conduit, conduit fittings, spacers, precast handholes, manholes, pull boxes, box covers, steel shaft streetlight supports, anchor bolts, anchor bolt cages, steel structure sections, steel poles, arms, fixtures, photocells, ground rods, grounding devices, ground wire, forms or form material, nails, and reinforcing steel. Owner agrees only to provide the correct amount of materials required for the permanent installation. Owner may furnish other materials such as sand, concrete, surface rock or other materials as may be needed or direct the Contractor to provide these or other materials as approved by Owner.

Should any Owner-Furnished materials be substantially delayed beyond the tentative delivery dates so as to significantly interfere with the Contractor's work, the Contractor will be allowed an equitable extension of time to the project schedule. Delays in material delivery shall not entitle the Contractor to any additional compensation.

Owner shall not furnish Contractor or any of its employees with tools, traffic control devices, safety equipment or devices of any nature, ice, cleaning or lubricating chemicals, rags, personal use items, or any other material or equipment except as stated.

A. Materials for Hourly Rate Work:

When work is performed as Non-Standard at Hourly Rates, Owner will furnish all materials to be permanently installed in the execution of the work covered by this Contract unless otherwise to be provided by the Contractor. In addition, Owner will provide required forms or form lumber or other concrete forming materials, nails, wire, and other necessary installation related expendables. Materials furnished by Owner will be picked up by the Contractor or made available to the Contractor at locations designated by Owner. The Contractor at times shall be required to obtain some OWNER-Furnished materials directly from Owner's suppliers.

B. Materials for Unit Price Work:

When work is performed as Standard Work under Unit Pricing, Owner will furnish all precast handholes, manholes, pull boxes, covers, conduit, conduit fittings and accessories, anchor bolts, steel shaft streetlight support, poles, ground rods, grounding devices, ground wire, forms or form material, nails, tie wire and steel reinforcement unless otherwise noted in this

Summary of Work, or in the 00300CSP AE Proposal Form. The Contractor shall be required to furnish all incidental materials and tools in the execution of the work embraced by this contract. Materials furnished by Owner will be picked up by the Contractor or made available to the Contractor at locations designated by the Owner. The Contractor may at times be required to obtain Owner-Furnished materials directly from Owner's suppliers. Contractor shall transport and/or arrange for delivery and distribution of all materials to the points where they will be incorporated into the project without additional compensation by the Owner. Any and all materials supplied to the Contractor shall become the responsibility of the Contractor to store and secure. Any and all materials supplied to the Contractor and found to be missing, lost, or stolen, shall become the Contractor's responsibility to replace in kind meeting City of Austin specifications.

C. Acceptance of Material by Contractor:

Materials furnished by Owner will be picked up by the Contractor or made available to the Contractor at locations designated by Owner. In general, Owner will set material aside for specific work assignments, or jobs, in designated areas in Owner's Facilities. The Contractor shall:

1. Accept the materials at the delivery points specified.
2. Check all materials and verify in writing that the materials delivered are in good condition and the quantities are correct.
3. Any materials, which do not meet specifications, or are broken or damaged, shall be returned unused and reported to the Owner.
4. Load, unload, haul, distribute, and store all materials furnished by Owner; and,
5. Execute receipt for all materials accepted from Owner.
6. The Contractor, when requested by the Owner, shall, at Owner's discretion, supply, receive and sign for materials such as concrete, rock for substations, and other similar materials that the Owner has ordered to be delivered to the work site for installation by the Contractor. The Contractor shall ensure a Supervisor or Foreman capable of properly identifying the material to be delivered verifies that the delivered material meets the requirements stated by and ordered by the Owner. The Contractor's Representative shall receive the original delivery ticket and print and sign their name, job title, date, and time of delivery of the material.

The Contractor's Representative shall also note on the delivery ticket any discrepancies in the material delivered, and when the material is not in compliance with the specifications, reject the materials delivered as not meeting specifications. The Contractor's Representative shall immediately notify Austin Energy's Inspector via telephone of the material rejection. The Contractor's Representative shall state the reason for rejection on their daily log/time sheet, sign their name, job title, date and time of delivery of the material, and provide a copy of the daily log to Austin Energy's Inspector the day of the material rejection or no later than the next business day.

The Contractor shall deliver the receipt ticket document to the Austin Energy Field Inspector the day of delivery, or at the latest, the following day.

Should the Owner choose to order the materials to be delivered to the work site for installation by the Contractor, the same provisions for receiving and documenting the delivery of materials stated in the above previous paragraphs, shall apply.

After the materials are accepted as specified above, the Contractor shall become solely responsible for their care, storage, and protection. In the event materials are, lost, stolen, or destroyed by any cause whatsoever after the Contractor has received them; their repair or replacement shall be entirely at the Contractor's expense. Should any bundling error or miss-fabricated Owner-Furnished materials be the cause for delay so as to interfere with the Contractor 's work, then the Contractor may be allowed an equitable extension of time to the project schedule, but shall not entitle the Contractor to any additional compensation because of such delays, except that should a substantial lack of Owner-Furnished material necessitate a complete shutdown of all operations, actual move-out and move-in of Contractor 's cost will be allowed as additional compensation to the Contractor, however, it shall be the responsibility of the Contractor to schedule the work activities so as to mitigate the effect of delayed Owner-Furnished material delivery.

D. Material Damage, Loss or Excess:

The Owner will allow Contractor up to two percent (2%) excess on breakable items or items negotiated and agreed upon by Owner, which require a margin for error, such as conduit. Any breakage or usage in excess of this limit shall be at the Contractor's expense. All other items such as precast hand-holes, manholes, pull boxes, box covers and the like, will be issued in quantities for the specific work assignment only with no excess.

At frequent intervals during construction and after a work assignment is complete, the Contractor shall return all excess and/or damaged Owner-Furnished materials to the Owner's storage yard and stack as directed by the Owner. The cost to the Owner shall be the hourly charge for labor and equipment necessary to perform the service. All transporting of materials shall be in accordance with all Federal, State, and local laws, rules and regulations applying thereto.

E. Material Storage:

After material is issued to Contractor, all construction material and equipment shall be stored so as to be protected from damage, degradation by the elements, theft, breakage, and in a neat and orderly fashion. If outdoor storage cannot be avoided, the material and equipment shall be stacked on supports well above ground level and protected from the elements to the extent possible.

1.12 MATERIALS FURNISHED BY CONTRACTOR

Unless otherwise stated herein or on the plans, the Contractor shall furnish all materials required to complete the project excluding only those items identified to be provided by the Owner (Article 1.11. "Materials Furnished by Owner"). Contractor furnished materials shall include but not limited to, asphalt, tack oil, grass seed, emulsion or sod, erosion control fabric, fencing/wire cage, post and tie wire, safety equipment, traffic control devices including barricades, traffic cones and lighted arrow boards and other materials necessary to complete the work assignment to a condition ready to put to use. Adequate hand tools as required to

perform the work and first aid supplies shall be part of the standard equipment of all Contractor's vehicles. All materials furnished by Contractor must conform to the standards set forth on the drawings and in the specifications.

Contractor shall, when requested by the Austin Energy Project Manager, supply those materials, shown on the 00300CSP AE Proposal Form., at the unit price stated. Those items include, but may not be limited to, Fill Dirt, Sand, Sandy Loam, Gravel, 3" X 5" Rock and specified Concrete.

No damaged or defective material or material not meeting specifications will be allowed to be incorporated into the work or to remain on the construction site. Contractor shall be responsible for the safe keeping of all materials, both Contractor supplied, and Owner supplied until they are permanently incorporated into the completed project. Owner shall not pay for damaged or defective material or material not meeting specifications.

1.13 RELEASES OF LIEN

After completion of a work assignment or at Owner's request, Contractor shall provide Austin Energy Project Manager with lien releases stating that all invoices for labor, equipment, services, and materials have been paid in full. The Austin Energy Project Manager may withhold payment to Contractor pending receipt of lien releases. A copy of the lien releases shall be sent to the Contract Administrator.

1.14 CONTRACTOR'S FACILITIES

Throughout the duration of the Contract, the Contractor shall maintain appropriate facilities to serve the scope and intent of the Contract. Any cost for rental or lease, mortgage and interest expenses, insurance, utilities, taxes, maintenance, custodial costs, telephone, equipment costs, or any other costs required for yard or office facilities shall not be billable to the Owner.

The Contractor's equipment yard shall be located such that travel time from the equipment yard to the assigned work location, does not exceed 45 minutes.

At the Owner's option, some of the Contractor's crews may be relocated to Owner's yards and dispatched directly from those locations.

1.15 CONTRACTOR'S STAFF

Contractor shall attend to the progression and completion of the work in the most efficient manner in accordance with the Contract. At all times during performance of the work, Contractor shall have a competent English-speaking Supervisor or Crew Leader on the worksite and such assistants as necessary to properly supervise and direct the work. Instructions and notices given by the Owner to Contractor's General Supervisor shall be deemed delivered directly to Contractor. Changes in work scope, however, shall be in writing and shall be signed by the City's Project Manager or their designee. If Contractor's supervisory personnel are unable to properly direct the progress of the work or adequately supervise and control Contractor's workers, the City may, in writing, request the Contractor to replace the Supervisor.

The following is the minimum Supervision requirement during the contract period unless specific written approval is received from Owner's designee.

A. General Supervisor:

Contractor shall provide one (1) full-time English-speaking General Supervisor to oversee the work performance of Contractor's crews, who will dedicate no less than 75% of their time on Owner's work. The General Supervisor shall also serve as Contractor's Contract Manager and be responsible for representing Contractor on all Contractual and Managerial issues. The General Supervisor will be Contractor's representative on the work and shall have authority to act on the behalf of the Contractor. All communication given to the General Supervisor shall be binding as if given to the Contractor. General Supervisor's time is the responsibility of the Contractor and is not billable to the Owner.

The General Supervisor's responsibilities shall include but not be limited to: invoice worksheet pre-billing report review and approval, payroll, safety and safety training, resolving personnel issues, equipment maintenance, clerical work, resolving customer complaints, crew productivity, construction quality, subcontracting and subcontractor performance, material procurement, and overall effectiveness of Contractor's work effort. These responsibilities may be fulfilled either directly by the General Supervisor or indirectly by delegation to other non-billable staff. Emergency contact numbers shall be provided for all supervisory personnel. A copy of the Emergency contact numbers shall be provided to the Contract Administrator and the Project Managers.

B. Office Staff:

The Contractor shall provide office staff to answer phones and maintain radio contact with supervision and work crews during working hours. Adequate office staff will be required to support the terms of this Contract. Office staff shall possess adequate expertise, computer skills, and resources to perform expediently and accurately all contractually required tasks.

C. Field Supervisor:

Contractor shall provide competent, English speaking field supervisors, with proper transportation, for the efficient and expedient execution of the work contemplated herein. Supervisor's time is billable to Owner at the hourly rate submitted in the 00300CSP AE Proposal Form. Supervisor's time shall be 100% allocated to specific projects and shall be billable to the Owner as applicable for each project. The primary responsibility of Supervisors will be the proper field supervision and coordination of Contractor's crews ensuring safety and production.

Supervisors shall not perform administrative tasks, equipment maintenance, or other tasks, which are not directly required to supervise Contractor's field crews other than the receipt and acceptance of materials furnished by the Contractor or the Owner. The number of Supervisors and their respective crew assignments shall be determined prior to mobilization of Contractor's crews. Crew size and Supervisor assignments will be determined by Owner and Contractor with Owner having final authority. A copy of the names of the Field Supervisors shall be provided to the Project Managers and the Contract Compliance Manager. All Field Supervisor shall wear appropriate Hard Hats with a "Field Supervisor" emblem/sticker on the

hard hat. Emblem/sticker shall be a minimum of 1.5 inches in height and able to be read from a distance of 25 feet.

D. Working Foreman/Crew Leader:

The Contractor shall provide English speaking, competent working foremen as may be deemed necessary by Owner for the proper and efficient execution of the work contemplated herein. Foreman's time shall be 100% allocated to specific projects and shall be billable to the Owner under the terms of at the hourly rate submitted in the 00300CSP AE Proposal Form. Primary tasks will include physical labor, crew direction and support, recording of project hours for various personnel and equipment, and units for each project, and can, if properly skilled and trained, receive and sign for materials furnished by the Contractor or the OWNER. All Working Foreman & Crew Leaders shall wear appropriate Hard Hats with a "Foreman" or "Crew Leader" emblem/sticker on the hard hat. Emblem/sticker shall be a minimum of 1.5 inches in height and able to be read from a distance of 25 feet.

1.16 EQUIPMENT AND PERSONNEL REQUIREMENTS

The availability of this equipment must be maintained throughout the duration of this Contract unless specific written exception is granted from the Austin Energy Project Manager and Owner's Contract Compliance Manger in advance. The Contractor is encouraged to optimize crews and equipment to improve productivity and reduce cost. The Contractor shall move onto their site, or their equipment yards, with the minimum quantities of equipment and labor within thirty (30) calendar days from Contract execution, or unless otherwise instructed by Owner.

The following minimum equipment is required. (If 2 contractors are awarded this list is correct for each contractor, if awarded to 1 contractor, quantities will double):

A. Minimum Equipment:

QTY	UNIT	DESCRIPTION
13	EA	Truck, ½ up to ¾ Ton Pickup (4x4)
10	EA	Truck, Utility Bed ¾ up to 1-1/2 Ton or Larger (4x4)
1	EA	Truck, Dump 5 Cubic Yards Minimum
2	EA	Truck, Dump 12 Cubic Yards Minimum
*1	EA	Truck, Dump 24 Cubic Yards End/Belly Dump
*1	EA	Truck, Haul w/ Tandem axle lowboy
8	EA	Trailer, Backhoe
4	EA	Trailer, Two Wheel w/ Lighted Directional Arrow
1	EA	Trailer, Cable 10,000 lbs. Minimum Capacity
*1	EA	Trailer, Tandem Axle Lowboy Heavy (Equipment / material)
1	EA	Tractor/Loader/Backhoe, Case 580 or equal
6	EA	Tractor/Loader/Backhoe, Rubber Tire, Medium JD 310 or Equal
*1	EA	Trenching Machine, Vermeer T755 Rock/Dirt or Equal
*1	EA	Rock Saw, T655 or Equal
4	EA	Air Compressor, 170 CFM Minimum Capacity w/ Air

Division 1 - General Requirements

SUMMARY OF WORK

Section 01010

Tools		
*1	EA	Rock Saw, Rubber Tire Vermeer RT700/850 30" saw
2	EA	Hoe Ram, Hydraulic and/or Air
2	EA	Saw, Concrete Pavement
6	EA	Pump, Water 2" or Larger
1	EA	Pump, Water Pneumatic 3" or Larger
2	EA	7/16" fiberglass rodder (300' minimum)
6	EA	Vibrator, Concrete
6	EA	Generator, Portable 3000 Watts or Larger
2	EA	Tamp, Air/Hydraulic/Gasoline
1	EA	Asphalt Roller, Walk Behind
1	EA	Torch, Acetylene Cutting w/ All Accessories
1	EA	Dozer, JD 650 or Equal
8	EA	Utility Construction Ahead Signs
8	EA	Lane Closure Ahead Signs
2	EA	Lighted Arrow Boards (Truck Mount)
250	EA	Traffic Control Devices (Cones)
25	EA	Plates, Steel Traffic, 3/4" x 4' x 10' w/ Skid Resistant Surface as Required by COA Public Works & Transportation Department
1	EA	Line Level w/ Stand
2	EA	Ground Lug Crimping Tool (Dies 1/0 up to 500)
*1	EA	Boring Machine, Directional up to & Including 12" Capacity
*1	EA	Truck mounted Pressure Digger Max. digging depth 15' w/ max dia. 42" auger
*1	EA	Pier drill machine w/ rubber tire or track rig (drilling depth up to 120')
*1	EA	Pier drill machine w/ rubber tire or track rig (drilling depth up to 80' depth)
*1	EA	Low Profile Pier drill machine w/ rubber tire or track up to 34' (rock or dirt capability)
*1	EA	Brush Grinder
*1	EA	6-Foot-Wide PTO Grass Shredder & Tractor
*1	EA	60-Inch-Wide Sheep Foot Roller with Front Blade
*1	EA	60-Inch-wide Smooth Drum Roller
*1	EA	2000 Gallon Water Truck with Attachments for Vegetation Watering
4	EA	Compact Mini Excavator John Deere 27D or equal
*1	EA	75 HP Grader

*1	EA	Track Excavator equivalent to 320 CAT with 2 Yard Rock Bucket
*1	EA	Minimum 46 HP, 500-Gal Tank Vacuum, Trailer Mounted for cleaning Manholes
*1	EA	Minimum 46 HP, 500-Gal Tank Vacuum, Truck Mounted for cleaning Manholes

* Must have access to this equipment or be available through subcontractor within three business days from receipt of notice.

Contractor shall furnish all necessary small tools and incidental equipment, including but not limited to shovels, picks, axes, hammers, saws, small power tools, hedge clippers, pruning shears, chain saws and equipment incidental to the pursuance of the work embraced by this contract at no additional cost to the Owner. All small tools and incidental equipment shall be kept clean, without rust, and safe to use as designed. Broken or unusable tools will be replaced immediately. If in the opinion of Owner personnel, specific tool(s) need to be removed and replaced, Contractor shall replace the identified tool(s). Should, in the Contractor's opinion the requested tool(s) not qualify for replacement, the Contractor may file a written statement to the Austin Energy Project Manager and Contract Administrator to field review the tools with the Contractor, and render a decision which will be binding on both parties. (Monthly inspections of tools shall occur, and any tools rendered unsafe or not operational will be required to be removed and replaced without delay.)

B. Minimum Personnel:

The following crew personnel will generally be maintained during the duration of this contract with adjustments to those numbers being made by the Contractor based on workload requirements and project schedules. The Contractor is encouraged to recommend changes to crew size and make up which will improve productivity and manage cost. This Contract averages between five (5) and fifteen (15) assignments per week.

Contractor shall notify Owner in writing and Owner must approve any additions and/or deletions in minimal personnel requirements.

Minimum Personnel Per Contractor If Awarded to Two Contractors	Minimum Personnel If Awarded to One Contractor
1 each – General Supervisor	1 – General Supervisor
6 each – Field Supervisors	12 – Field Supervisors
10 each – Working Foreman	20 – Working Foreman
10 each – Equipment Operators	20– Equipment Operators
4 each – Truck Drivers	8– Truck Drivers
30 each – Common Laborers	60 – Common Laborers

1.17 SAFETY

In addition to the safety requirement in Section 700 General Conditions, Article 6.11, "Safety and Protection"; Trench safety, trench safety plan, and trench safety systems, Contractor shall conform to the requirements of the City of Austin, Standard Specification, Item No. 509S, Trench Safety Systems.

1.18 BARRICADES

Contractor shall furnish all barricades, traffic control, and safety devices necessary to protect the work, the workman and general public as required by applicable law and standard, in the execution of the assigned work.

Contractor shall furnish, as part of the minimum required equipment, a minimum of eight (8) Utility Construction Ahead signs, Eight (8) Lane Closure signs, Two (2) Lighted arrows boards, and two hundred fifty (250) traffic control devices for projects in the public right-of-way which require traffic control devices. If traffic control devices are to be left overnight, the devices must be lighted. This equipment shall be used by the Contractor as needed for the various projects, which are in progress, and this equipment shall not be billable to the Owner, whether the project is Standard or Non-Standard. Contractor and Owner shall maintain a running total of traffic control devices issued to work sites and devices available for other projects. The report may be noted on the daily crew assignment form.

If, in order to meet the requirements of the Texas Manual on Uniform Traffic Control Devices (TMUTCD), the City of Austin Standard Specification Series 800, and the City of Austin Transportation Criteria Manual, additional barricade and/or traffic control equipment is required, the Contractor shall determine the equipment required, minus the available Traffic Control Devices Contractor has on hand and verified by Owner's representative, and obtain the balance of Traffic Control Devices from a Specialty Supply Subcontractor, under the terms of Section 00810AE, 14.1.6.4 "Application For Progress Payment".

1.19 SURVEY STAKING

The survey stakes when provided by Owner shall be limited to the reference points indicated on the Construction Drawings or standard staking practices. All other construction reference points shall be established by the Contractor at Contractor's expense.

Survey stakes established by Owner shall be preserved by Contractor unless the Owner authorizes their removal. Any survey stakes destroyed, moved, or removed by Contractor, the Contractor's agent, employee, or subcontractor without approval of the Owner shall be replaced by the Owner at the Contractor's expense. Cost to the Contractor for the aforementioned re-stake, if re-staked by the Owner, shall include all of the Owner's cost, including labor, fringe benefits, overhead, equipment, supplies and materials. Survey stakes destroyed, moved, or removed through no fault of the Contractor shall be replaced by the Owner at Owner's expense. The Owner will endeavor to correct staking errors or replace missing survey points within a reasonable time period after being notified by Contractor.

Owner shall set centerline or offset survey points at structure locations shown on the Construction Drawings. Owner-Furnished construction drawings or structure list shall indicate

structure data such as station number, structure type, grounding requirement, foundation details, and/or elevations. Structures shall not be constructed at any other location without prior written approval of the Owner.

If a discrepancy exists between the markings on the location stake and the Construction Drawings, or Structure List, or if it appears to the Contractor that any structure is staked in error, the Contractor shall notify Owner immediately, and no further work shall be performed on the location in question until such discrepancy is resolved. If the Contractor proceeds without Owner's direction, all such work shall be at Contractor's own risk and cost of installation or removal, if in error or not to specifications.

The Contractor shall furnish, at its expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work for which he is responsible.

Surveying is not a pay item in this Contract and will be considered as incidental work in pursuance of the work embraced in this Contract.

1.20 LOCATION OF EXISTING UTILITIES

The Contractor shall provide a competent and knowledgeable supervisor with proper transportation to pick up new work assignments on a daily basis and properly notify the "One Call System" for location of existing utilities near anticipated work. The Contractor shall be solely responsible for contacting the "One Call System" for their assistance in locating existing underground utilities before digging or excavating. However, the "One Call System" does not locate utilities on private property.

Contractor shall proceed with caution in the excavation and preparation of holes so as to avoid damage to underground structures whether known or unknown. If damage occurs, immediate repairs shall be made at the option of the affected utility at the sole expense of the Contractor.

Contractor shall notify OWNER's Field Representative of any damage caused and repairs made.

1.21 JOINT USE WORK

In the future, the Owner may develop agreements with area Telephone / Cable companies for joint-use construction. If the agreement takes place, the Contractor will be required to obtain price agreements with these companies for the work, which occurs in joint-use construction. Contractor will be responsible for invoicing the Telephone / Cable companies directly for their share of the Unit Price construction cost. The Owner will be responsible for negotiating the percentage trench cost share for trench excavation, backfill, site restoration, and cleanup with each of the Utilities.

Owner does not guarantee the availability of this work and will not actively participate in negotiations except regarding the percent trench cost sharing. Owner shall not be bound by any terms or conditions made between Contractor and the Telephone, or any of the various cable companies in the service area.

1.22 CLEANUP

As part of the work, Contractor shall completely remove and properly dispose of all temporary work to the extent directed by Owner's Inspector. Contractor shall remove and dispose of all embankments or cofferdams made for construction purposes; shall properly fill excavations, and holes; shall repair all ruts, creek banks, irrigation ditches, ponds and terraces; shall properly dispose of all rubbish and debris resulting from the work; and shall do all work necessary to restore the work site to at least as good order and condition as it was at the beginning of the work. Cleanup, repairs, and/or restoration work that is required due to negligence or poor workmanship by the Contractor shall not be billable to Owner.

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall conform to all applicable Federal, State, and local laws and regulations pertaining to such disposal and to the Site Development permit (available from Owner). If any waste material is dumped or spilled in unauthorized areas, the Contractor shall remove the material and restore the area at the Contractor's own expense. If necessary, contaminated ground shall be excavated or disposed of in accordance with applicable laws and as directed by OWNER and replaced with suitable fill material compacted and finished with topsoil at the expense of the Contractor.

All waste material and rubbish shall be removed by Contractor at the end of each workday. In the event of the Contractor's failure to comply with the requirements of this section, Owner shall withhold payment for all work until the right-of-way and surrounding area are cleaned to the satisfaction of the Owner.

The right-of-way and staging area(s) shall be kept in a neat and orderly condition at all times. Owner may, at any time during construction, order a general cleanup of the site as a part of the work under this section.

1.23 LOCATION OF PROJECT AND WORK ASSIGNMENT PROCESS

- A. Each Work Assignment will include a specific location. The OWNER will issue a Work Assignment to the CONTRACTOR. The Work Assignment will contain a print with a need by date. Upon Owner notice, the Contractor is required to meet the Project Manager, or designee at the site within two (2) calendar days of the issued Work Assignment.
- B. The Work Assignment may include more than one geographical location but within the limits of construction outlined in Section 00020CSP.
- C. When required by Owner, during the site visit, the CONTRACTOR will confirm the estimated quantities provided by the OWNER and ask for any additional clarifications. The pricing for each item must be based on the line-item pricing in Section 00300CSP AE, Additional items not previously in the Section 00300CSP AE must be added to the contract by Change Order in accordance with Sections 00700 and 00810AE.
- D. Once issued by the OWNER, a Work Assignment becomes a part of the Contract subject to all terms and conditions of the Contract, and shall serve as a Notice to Proceed. The CONTRACTOR is not authorized to perform work until the

specific Work Assignment is issued. Contractor shall Mobilize for Routine Work Assignments to meet the need by date stated on the Work Assignment print. Contractor shall be prepared to Mobilize for Emergency response Work Assignments within 1.5 hours as stated in Section 1.3. Contractor Requirements, B.

- E. The date that a Work Assignment is issued by the OWNER and delivered to the CONTRACTOR will be the commencement date for the purposes of the measurement of Contract Time for that individual Work Assignment.

- F. The CONTRACTOR will pay liquidated damages for each consecutive day after the agreed time of completion for each separate Work Assignment unless otherwise adjusted by OWNER. If time of completion cannot be agreed upon, the CONTRACTOR will proceed with the Work Assignment and within three (3) calendar days submit a detailed schedule outlining the work items and time of completion for the OWNER's review. If an agreement still cannot be made, the CONTRACTOR may submit a claim as outlined in Item 16.1 of Section 0700, General Conditions of the Contract. Owner reserves the right to withdraw Work Assignment upon written notice to the Contractor.

- G. CONTRACTOR may be required to work on as many as forty (40) concurrent work assignments at a time unless otherwise agreed to in writing by the OWNER. Work must be continuous on each Work Assignment. CONTRACTOR shall work all locations within the scheduled days and hours required in each Work Assignment.

1.24 CONTRACTOR'S RESPONSIBILITIES

- A. Execute all Work, as defined in each Work Assignment. The Work of this Contract is specified in the City of Austin Standard Specifications, Special Provisions and Special Specifications listed in Section 1.25 CITY SPECIFICATIONS AND STANDARDS.

- B. Secure all construction-related permits, other than those provided by OWNER as described in paragraph 6.6 of Section 00810AE, Supplemental General Conditions, and pay for the same.

- C. Arrange for any necessary temporary facilities as indicated in Section 01500 – Temporary Facilities (1010 Attachment 5).

1.25 CITY SPECIFICATIONS AND STANDARDS

Link to City Specifications & Standards

[Standard Specifications Manual | Austin, TX | Municode Library](#)

for 210S.3, 306S, 340S, 360S.3, 402S.3, 403S.3, 509S, 602S, 604.S, 628S, 639S, 641S.3, 642S, 701S & 1100S

In the above referenced City of Austin Standard Specifications, in the Sections titled "Measurement and Payment", delete all text in its entirety.

For Surface Rock, See 1010 Attachment 1.

[Distribution Construction Standards \(austinenergy.com\)](http://austinenergy.com)

1400 -Civil (1010 Attachment 2), 1410-Duct Banks, 1418-Conduit, 1419-Trenching, 1438-Barriers & Pads, 1448-Pull Boxes, 458-Manholes, 1488-Underground Structures - Grounding, 1510-Transformer Pad - Mount, 1940 Streetlights, Maintenance, 2015-Network Vault (1010 Attachment 3)

[Purchasing Specifications for Distribution Construction \(austinenergy.com\)](http://austinenergy.com)

Link to Transportation Criteria Manual, Section 8 Traffic Control
<https://www.municode.com/library/tx/austin>

END

**CITY OF AUSTIN PURCHASING
SPECIFICATIONS**

FLEXIBLE BASE, SURFACE ROCK AND 3x5 ROCK

1.0 SCOPE AND CLASSIFICATION

- 1.1 Scope:** The Vendor shall provide the materials and services requested by the on-site City of Austin personnel and satisfy the environmental and working conditions of the project. All the rock materials used shall comply with all City, State and Federal laws, municipal ordinances and regulations.
- 1.2 Classification:** The surface rock and 3x5 rock specified herein shall be in compliance with all of the Solicitation documents and specifications.

2.0 SPECIFICATIONS

2.1 Flexible Base

- 2.1.1 Description: Furnishing and placing a crushed stone base course for surfacing, pavement, and other base courses. Flexible Base shall be constructed on an approved, prepared surface in one or more courses conforming to the typical sections and to the lines and grades indicated on the Drawings or established by the Engineer or other designated representative. Applicable for projects or work involving either inch-pound or SI units. Within the text and accompanying tables, the inch-pound units are given preference over SI units.
- 2.1.2 Submittals: The submittal requirements of this specification may include:
- 2.1.2.1 Source, gradation and TxDOT test results for the crushed limestone material;
 - 2.1.2.2 Notification that the crushed limestone material is completed and ready for testing; and
 - 2.1.2.3 Field density test results for in-place compacted flexible base.
- 2.1.3 Material:
- 2.1.3.1 Mineral Aggregate: The material shall be crushed argillaceous limestone meeting the requirements specified herein. The material shall be from sources approved by the City and shall consist of durable crushed stone that has been screened to the required gradation.
 - 2.1.3.2 Flexible base materials shall be tested according to the following TxDOT standard test methods:

Preparation for Soil Constants and Sieve Analysis	Tex-101-E
Liquid Limit	Tex-104-E
Plastic Limit	Tex-105-E
Plasticity Index	Tex-106-E
Sieve Analysis	Tex-110-E
Wet Ball Mill	Tex-116-E
Triaxial Test	Tex-117-E, Part II

2.1.3.3 Base material shall be stockpiled after crushing, and then tested by the City’s designated laboratory and approved by the Engineer or designated representative prior to being hauled to the project.

2.1.3.4 The material shall be well-graded and shall meet the requirements in Table 1:

TABLE 1 – GRADATION REQUIREMENTS

Sieve Designation: US	Sieve Designation: SI	% Retained
1¾”	45 mm	0
7/8”	22.4 mm	10 – 35
3/8”	9.5 mm	30 - 50
#4	4.75 mm	45 – 65
#40	425 mm	70 – 85

Maximum Plasticity Index	10
Maximum Wet Ball Mill	42
Maximum Increase in passing #40 (425 mm) sieve from Wet Ball Mill Test	20

Minimum compressive strength when subjected to the triaxial test shall be:
<ul style="list-style-type: none"> • 35 psi at 0 psi lateral pressure [240 kiloPascal (kPa) at 0 kPa lateral pressure]; and • 175 psi at 15 psi lateral pressure [1200 kiloPascal (kPa) at 100 kPa lateral pressure].

2.1.3.5 Asphaltic Material: Prime Coat shall conform to the requirements of Standard Specification Item 306S, “Prime Coat,” except for measurement and payment.

2.2 Surface Rock

2.2.1 Coarse aggregates shall be composed of sound and durable particles of uncrushed gravel, crushed stone or crushed slag, free from frozen material or injurious amounts of salt, alkali, vegetable matter or other objectionable material, either free or as an adherent coating. It shall not contain more than .025% by weight of clay lumps, nor more than 1.0% by weight of shale, nor more than 5% by weight of laminated and/or friable particles when tested in accordance with TxDOT Test Method Tex-413-A. It shall have a wear rate of not more than 35% when in accordance with TxDOT Test method Tex-410-A.

- 2.2.2 Unless otherwise indicated, coarse aggregate shall be subjected to five cycles of the soundness test conforming to TxDOT Text Method Tex-411-A. The loss shall not be greater than 12% when sodium sulfate is used, and 18% when magnesium sulfate is used.
- 2.2.3 Coarse aggregate shall be sufficiently washed to produce a clean, dust free surface. The Loss by Decantation (TxDOT Test Method Tex-406-A), plus allowable weight of clay lumps, shall not exceed 1%.
- 2.2.4 Texas Department of Transportation Standard Specifications for Construction of Highways and Bridges Aggregate Type C (gravel, crushed slag or crushed stone) shall be ¾" to 1½" in accordance with the gradation requirements in Table 2.

TABLE 2: GRADATION REQUIREMENTS

Sieve Size	% of Materials Retained
2"	0
1½"	0 – 10
1"	45 - 80
¾"	85 – 100
3/8"	95 - 100

2.3 Specifications – 3"x5" Hard Stone Limestone Rock

- 2.3.1 Coarse aggregates shall be composed of sound and durable particles of uncrushed gravel, crushed stone or combinations thereof, free from frozen material or injurious amounts of salt, alkali, vegetable matter or other objectionable material, either free or as an adherent coating. It shall not contain more than 0.25% by weight of clay lumps, nor more than 1.0% by weight of shale, nor more than 5% by weight of laminated and/or friable particles when tested in accordance with TxDOT Test Method Tex-413-A. It shall have a wear of not more than 40% when in accordance with TxDOT Test method Tex-410-A.
- 2.3.2 Unless otherwise indicated, coarse aggregate shall be subjected to five cycles of the soundness test conforming to TxDOT Test Method Tex-411-A. The loss shall not be greater than 12% when sodium sulfate is used, and 18% when magnesium sulfate is used.
- 2.3.3 Coarse aggregate shall be sufficiently washed to product a clean, dust-free surface. The Loss by Decantation (TxDOT Test Method Tex-406-A), plus allowable weight of clay lumps, shall not exceed 1%.


Unit Weight: per ton

Materials: Aggregate for construction shall conform to the gradation requirements in Table 3:

TABLE 3: GRADATION REQUIREMENTS

Tex-401-A, % Retained per sieve


Material	Gradation
US 3" - SI 75mm	100
US 5" - SI 125 mm	0

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1400's CIVIL

CONTAINS

- 1410-31 DUCT BANKS EB-35 1 COUNT**
- 1410-33 DUCT BANKS EB-35 2, 4, 6 COUNT**
- 1410-35 DUCT BANKS EB-35 9 COUNT**
- 1410-41 DUCT BANKS DB-60 1 COUNT**
- 1410-43 DUCT BANKS DB-60 2, 4, 6 COUNT**
- 1410-45 DUCT BANKS DB-60 9 COUNT**
- 1410-51 DUCT BANKS SCH-40 1 COUNT**
- 1410-53 DUCT BANKS SCH-40 2, 4, 6 COUNT**
- 1410-55 DUCT BANKS SCH-40 9 COUNT**
- 1410-56 DUCT BANKS PVC 12 COUNT**
- 1410-57 DUCT BANKS PVC 15 COUNT**
- 1410-58 DUCT BANKS PVC 19 COUNT**
- 1410-60 RISER INSTALLATION**
- 1418-00 STRAIGHT CONDUIT SECTIONS PVC & GALV**
- 1418-02 REDUCERS, COUPLINGS, & 5 DEG ANGLE COUPLINGS**
- 1418-05 PLUGS & FEMALE COUPLINGS**
- 1418-10 CONDUIT SPACERS**
- 1418-19 CONDUIT BENDS 9.5 IN & 18 IN RADIUS**
- 1418-20 CONDUIT BEND 11.25 DEGREES**
- 1418-21 CONDUIT BEND 22.5 DEGREES**
- 1418-22 CONDUIT BEND 45 DEGREES**
- 1418-23 CONDUIT BEND 90 DEGREES**
- 1419-20 ROAD CROSSING TRENCH DETAIL**
- 1448-11 PULLBOX - 17 IN X 30 IN**
- 1448-15 PULLBOX 18 IN**
- 1448-16 PULLBOX 24 IN**
- 1448-30 PULLBOX 36 IN W/STANDARD LID**
- 1448-31 PULLBOX 36 IN W/TRAFFIC LID**
- 1448-32 PULLBOX 48 IN W/STANDARD LID**
- 1448-33 PULLBOX 48 IN W/TRAFFIC LID**

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1400's CIVIL CONTINUED

CONTAINS

- 1458-06A MH 6FT X 12FT - 2 FT MAX BURIAL DEPTH
- 1458-06B MH 6FT X 12FT - 2 FT MAX BURIAL DEPTH
- 1458-07A MH 6FT X 12FT W/CS - 2 FT MAX BURIAL DEPTH
- 1458-07B MH 6FT X 12FT W/CS - 2 FT MAX BURIAL DEPTH
- 1458-12A MH 12FT X 12FT - 2 FT MAX BURIAL DEPTH
- 1458-12B MH 12FT X 12FT - 2 FT MAX BURIAL DEPTH
- 1458-13A MH 12FT X 12FT W/CS - 2 FT MAX BURIAL DEPTH
- 1458-13B MH 12FT X 12FT W/CS - 2 FT MAX BURIAL DEPTH
- 1458-18A MH 6FT X 12FT - 5FT MAX BURIAL DEPTH
- 1458-18B MH 6FT X 12FT - 5FT MAX BURIAL DEPTH
- 1458-18C MH 6FT X 12FT - 5FT MAX BURIAL DEPTH
- 1458-19A MH 6FT X 12FT W/CS 5FT - MAX BURIAL DEPTH
- 1458-19B MH 6FT X 12FT W/CS 5FT - MAX BURIAL DEPTH
- 1458-19C MH 6FT X 12FT W/CS 5FT - MAX BURIAL DEPTH
- 1458-24A MH 12FT X 12FT - 5FT MAX BURIAL DEPTH
- 1458-24B MH 12FT X 12FT - 5FT MAX BURIAL DEPTH
- 1458-24C MH 12FT X 12FT - 5FT MAX BURIAL DEPTH
- 1488-10 GROUNDING IN SOFT SOIL
- 1488-20 GROUNDING IN ROCKY SOIL



NETWORK SYSTEMS

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MATERIALS AND DRAWING REVISION PAGES


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MATERIALS AND DRAWING REVISION PAGES


DRAWING NO.	DESCRIPTION OF CHANGE	DATE	INITIALS
1410-31	ORIGINAL DRAWING	09/01/99	FS
1410-33	ORIGINAL DRAWING	09/01/99	FS
1410-35	ORIGINAL DRAWING	09/01/99	FS
1410-41	ORIGINAL DRAWING	09/06/99	FS
1410-43	ORIGINAL DRAWING	09/06/99	FS
1410-45	ORIGINAL DRAWING	09/06/99	FS
1410-51	ORIGINAL DRAWING	09/06/99	FS
1410-53	ORIGINAL DRAWING	09/10/99	FS
1410-55	ORIGINAL DRAWING	09/10/99	FS
1410-56	ORIGINAL DRAWING	04/10/07	DP
1410-57	ORIGINAL DRAWING	04/10/07	DP
1410-58	ORIGINAL DRAWING	04/10/07	DP
1410-60	ORIGINAL DRAWING	09/14/99	FS
1418-00	ORIGINAL DRAWING	09/15/99	FS
1418-02	ORIGINAL DRAWING	09/15/99	FS
1418-05	ORIGINAL DRAWING	09/15/99	FS
1418-10	ORIGINAL DRAWING	09/17/99	FS
1418-19	ORIGINAL DRAWING	09/17/99	FS
1418-20	ORIGINAL DRAWING	09/19/99	FS
1418-21	ORIGINAL DRAWING	09/19/99	FS
1418-22	ORIGINAL DRAWING	09/21/99	FS
1418-23	ORIGINAL DRAWING	09/21/99	FS
1419-20	ORIGINAL DRAWING	09/21/99	FS
1448-11	ORIGINAL DRAWING	09/21/99	FS
1448-15	ORIGINAL DRAWING	09/21/99	FS
1448-16	ORIGINAL DRAWING	09/25/99	FS
1448-30	ORIGINAL DRAWING	09/25/99	FS
1448-31	ORIGINAL DRAWING	09/25/99	FS
1448-32	ORIGINAL DRAWING	09/25/99	FS
1449-33	ORIGINAL DRAWING	09/26/99	FS
1458-06	ORIGINAL DRAWING	09/26/99	FS
1458-07	ORIGINAL DRAWING	09/27/99	FS
1458-12	ORIGINAL DRAWING	09/27/99	FS
1459-13	ORIGINAL DRAWING	09/27/99	FS
1488-10	ORIGINAL DRAWING	09/29/99	FS
1488-20	ORIGINAL DRAWING	09/29/99	FS
1410-31	UPDATED NOTS & DRAWING	01/08/04	DP
1410-33	UPDATED NOTS & DRAWING	01/08/04	DP
1410-35	UPDATED NOTS & DRAWING	01/08/04	DP
1410-41	UPDATED NOTS & DRAWING	01/08/04	DP
1410-43	UPDATED NOTS & DRAWING	01/08/04	DP
1410-45	UPDATED NOTS & DRAWING	01/08/04	DP
1410-51	UPDATED NOTS & DRAWING	01/08/04	DP
1410-53	UPDATED NOTS & DRAWING	01/08/04	DP
1410-55	UPDATED NOTS & DRAWING	01/08/04	DP
1410-60	UPDATED NOTS & DRAWING	01/08/04	DP

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DRAWING NO.	DESCRIPTION OF CHANGE	DATE	INITIALS
1418-00	UPDATED NOTS & DRAWING	08/12/02	DP
1418-02	UPDATED NOTS & DRAWING	08/12/02	DP
1418-05	UPDATED NOTS & DRAWING	08/12/02	DP
1418-10	UPDATED NOTS & DRAWING	08/12/02	DP
1418-19	UPDATED NOTS & DRAWING	08/12/02	DP
1418-20	UPDATED NOTS & DRAWING	08/12/02	DP
1418-21	UPDATED NOTS & DRAWING	08/12/02	DP
1418-22	UPDATED NOTS & DRAWING	08/12/02	DP
1418-23	UPDATED NOTS & DRAWING	08/12/02	DP
1419-20	UPDATED NOTS & DRAWING	04/12/07	DP
1448-11	UPDATED NOTS & DRAWING	04/12/07	DP
1448-15	UPDATED NOTS & DRAWING	04/12/07	DP
1448-16	UPDATED NOTS & DRAWING	04/12/07	DP
1448-30	UPDATED NOTS & DRAWING	04/12/07	DP
1448-31	UPDATED NOTS & DRAWING	04/12/07	DP
1448-32	UPDATED NOTS & DRAWING	04/12/07	DP
1449-33	UPDATED NOTS & DRAWING	04/12/07	DP
1458-06	UPDATED NOTS & DRAWING	04/12/07	DP
1458-07	UPDATED NOTS & DRAWING	04/12/07	DP
1458-12	UPDATED NOTS & DRAWING	04/12/07	DP
1459-13	UPDATED NOTS & DRAWING	04/12/07	DP
1488-10	UPDATED NOTS & DRAWING	04/12/07	DP
1488-20	UPDATED NOTS & DRAWING	04/12/07	DP
ALL	UPDATED DRAWINGS AND FOOTNOTES	01/11/11	DP
1448-31	UPDATED MEASUREMENTS IN DRAWING	01/07/15	DP
1448-33	UPDATED MEASUREMENTS IN DRAWING	01/07/15	DP

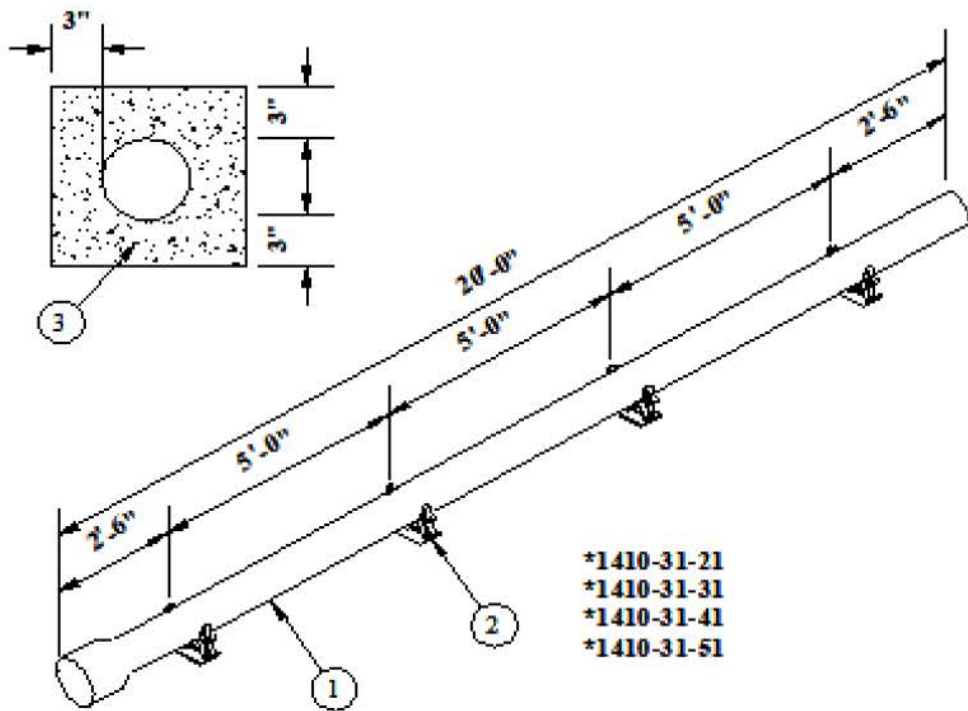
	NETWORK SYSTEMS CIVIL MATERIALS AND DRAWING REVISION PAGES	1400's
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1410-31	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE EB-35 CONDUIT (1-CONDUIT)	
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1400 CIVIL
1410 CONDUITS AND DUCT BANKS
1410-31 DUCT BANKS TYPE EB-35 CONDUIT (1-CONDUIT)

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS**



SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.

ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.

ALWAYS ENCASE 5-IN CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-31 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-33 THROUGH 1410-35 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.



Rev. Date

CIVIL
CONDUITS AND DUCT BANKS
DUCT BANKS TYPE EB-35 CONDUIT (1-CONDUIT)

1410-31

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11/01

CU

CU-ID

CU-REF

CU-DESCRIPTION

DB2INEB351X1PEA	14103121A	DUCT BANK 2IN EB35 1X1 PRI EAST ARTERIAL
DB2INEB351X1PWA	14103121B	DUCT BANK 2IN EB35 1X1 PRI WEST ARTERIAL
DB2INEB351X1PEL	14103121C	DUCT BANK 2IN EB35 1X1 PRI EAST LOCAL
DB2INEB351X1PWL	14103121D	DUCT BANK 2IN EB35 1X1 PRI WEST LOCAL
DB2INEB351X1PN	14103121E	DUCT BANK 2IN EB35 1X1 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	1	FT	14103121A
2	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.2	FT	14103121A
3	0000001423	CONCRETE 2000 PSI	.02	FT	14103121A

DB3INEB351X1PEA	14103131A	DUCT BANK 3IN EB35 1X1 PRI EAST ARTERIAL
DB3INEB351X1PWA	14103131B	DUCT BANK 3IN EB35 1X1 PRI WEST ARTERIAL
DB3INEB351X1PEL	14103131C	DUCT BANK 3IN EB35 1X1 PRI EAST LOCAL
DB3INEB351X1PWL	14103131D	DUCT BANK 3IN EB35 1X1 PRI WEST LOCAL
DB3INEB351X1PN	14103131E	DUCT BANK 3IN EB35 1X1 PRI NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	1	FT	14103131A
2	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.2	FT	14103131A
3	0000001423	CONCRETE 2000 PSI	.02	FT	14103131A

DB4INEB351X1PEA	14103141A	DUCT BANK 4IN EB35 1X1 PRI EAST ARTERIAL
DB4INEB351X1PWA	14103141B	DUCT BANK 4IN EB35 1X1 PRI WEST ARTERIAL
DB4INEB351X1PEL	14103141C	DUCT BANK 4IN EB35 1X1 PRI EAST LOCAL
DB4INEB351X1PWL	14103141D	DUCT BANK 4IN EB35 1X1 PRI WEST LOCAL
DB4INEB351X1PN	14103141E	DUCT BANK 4IN EB35 1X1 PRI NETWORK

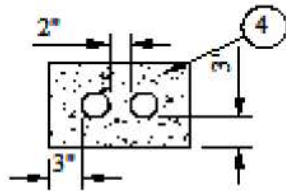
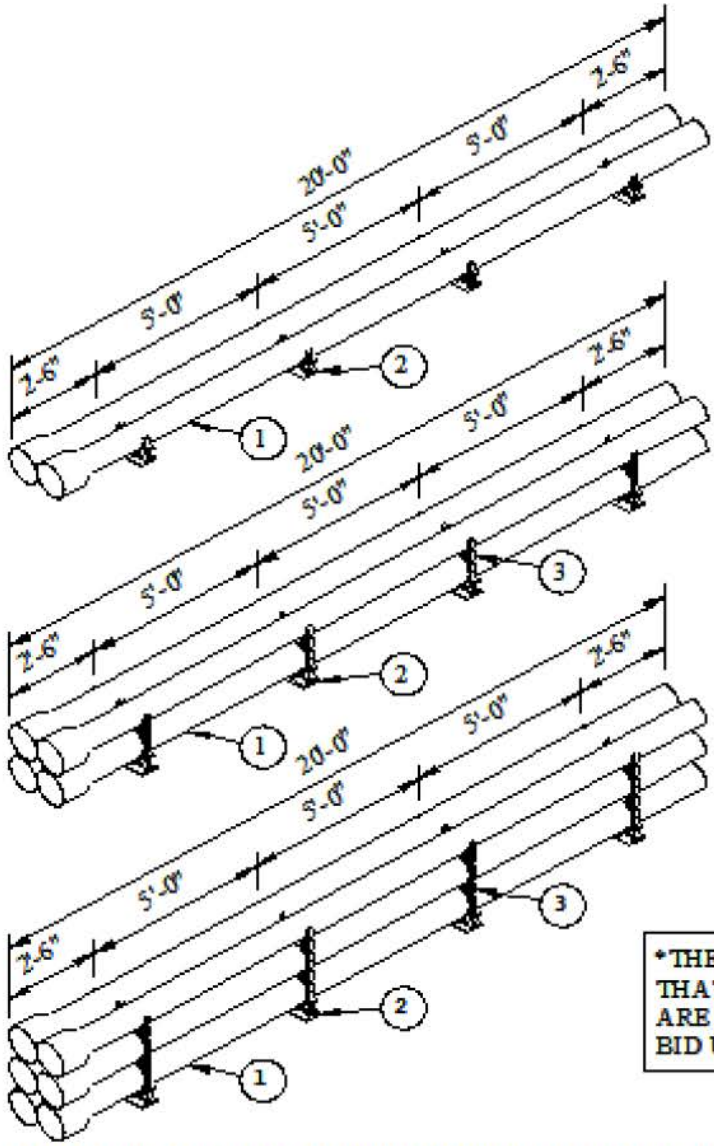
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	1	FT	14103141A
2	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.2	FT	14103141A
3	0000001423	CONCRETE 2000 PSI	.04	FT	14103141A

DB5INEB351X1PEA	14103151A	DUCT BANK 5IN EB35 1X1 PRI EAST ARTERIAL
DB5INEB351X1PWA	14103151B	DUCT BANK 5IN EB35 1X1 PRI WEST ARTERIAL
DB5INEB351X1PEL	14103151C	DUCT BANK 5IN EB35 1X1 PRI EAST LOCAL
DB5INEB351X1PWL	14103151D	DUCT BANK 5IN EB35 1X1 PRI WEST LOCAL
DB5INEB351X1PN	14103151E	DUCT BANK 5IN EB35 1X1 PRI NETWORK

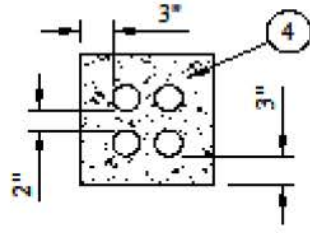
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	1	FT	14103151A
2	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.2	FT	14103151A
3	0000001423	CONCRETE 2000 PSI	.04	FT	14103151A

1410-33	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE EB-35 CONDUIT (2, 4, OR 6-CONDUITS)	 AUSTIN ENERGY
Sheet 1 of 4		
11/01		

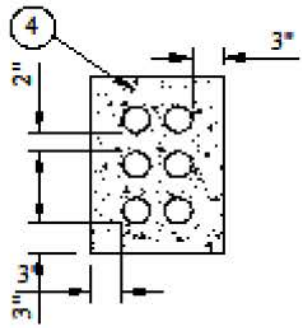
1410-33 DUCT BANKS TYPE EB-35 CONDUIT (2, 4, OR 6-CONDUITS)



- *1410-33-22
- *1410-33-32
- *1410-33-42
- *1410-33-52



- *1410-33-24
- *1410-33-34
- *1410-33-44
- *1410-33-54



- *1410-33-26
- *1410-33-36
- *1410-33-46
- *1410-33-56

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS**


SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.

ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.

ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-31 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-33 THROUGH 1410-35 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN TWO CONDUITS WIDE AND FOUR CONDUITS HIGH.

	CIVIL	1410-33
	CONDUITS AND DUCT BANKS	Sheet 2 of 4
	DUCT BANKS TYPE EB-35 CONDUIT (2, 4, OR 6-CONDUITS)	11/01
Rev. Date		

CU

CU-ID	CU-REF	CU-DESCRIPTION
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DB2INEB351X2PEA	14103322A	DUCT BANK 2IN EB35 1X2 PRI EAST ARTERIAL
DB2INEB351X2PWA	14103322B	DUCT BANK 2IN EB35 1X2 PRI WEST ARTERIAL
DB2INEB351X2PEL	14103322C	DUCT BANK 2IN EB35 1X2 PRI EAST LOCAL
DB2INEB351X2PWL	14103322D	DUCT BANK 2IN EB35 1X2 PRI WEST LOCAL
DB2INEB351X2PN	14103322E	DUCT BANK 2IN EB35 1X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	2	FT	14103322
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.4	FT	14103322
3	0000001423	CONCRETE 2000 PSI	.02	FT	14103322

DB2INEB352X2PEA	14103324A	DUCT BANK 2IN EB35 2X2 PRI EAST ARTERIAL
DB2INEB352X2PWA	14103324B	DUCT BANK 2IN EB35 2X2 PRI WEST ARTERIAL
DB2INEB352X2PEL	14103324C	DUCT BANK 2IN EB35 2X2 PRI EAST LOCAL
DB2INEB352X2PWL	14103324D	DUCT BANK 2IN EB35 2X2 PRI WEST LOCAL
DB2INEB352X2PN	14103324E	DUCT BANK 2IN EB35 2X2 PRI NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	4	FT	14103324A
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.4	FT	14103324A
3	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.4	FT	14103324A
4	0000001423	CONCRETE 2000 PSI	.04	FT	14103324A

DB2INEB353X2PEA	14103326A	DUCT BANK 2IN EB35 3X2 PRI EAST ARTERIAL
DB2INEB353X2PWA	14103326B	DUCT BANK 2IN EB35 3X2 PRI WEST ARTERIAL
DB2INEB353X2PEL	14103326C	DUCT BANK 2IN EB35 3X2 PRI EAST LOCAL
DB2INEB353X2PWL	14103326D	DUCT BANK 2IN EB35 3X2 PRI WEST LOCAL
DB2INEB353X2PN	14103326E	DUCT BANK 2IN EB35 3X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	6	FT	14103326A
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.4	FT	14103326A
3	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.8	FT	14103326A
4	0000001423	CONCRETE 2000 PSI	.06	FT	14103326A

DB3INEB351X2PEA	14103332A	DUCT BANK 3IN EB35 1X2 PRI EAST ARTERIAL
DB3INEB351X2PWA	14103332B	DUCT BANK 3IN EB35 1X2 PRI WEST ARTERIAL
DB3INEB351X2PEL	14103332C	DUCT BANK 3IN EB35 1X2 PRI EAST LOCAL
DB3INEB351X2PWL	14103332D	DUCT BANK 3IN EB35 1X2 PRI WEST LOCAL
DB3INEB351X2PN	14103332E	DUCT BANK 3IN EB35 1X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	2	FT	14103332A
3	0000001423	CONCRETE 2000 PSI	.04	FT	14103332A

1410-33	CIVIL	
Sheet 3 of 4	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS TYPE EB-35 CONDUIT (2, 4, OR 6-CONDUITS)	
		Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB3INEB352X2PEA	14103334A	DUCT BANK 3IN EB35 2X2 PRI EAST ARTERIAL
DB3INEB352X2PWA	14103334B	DUCT BANK 3IN EB35 2X2 PRI WEST ARTERIAL
DB3INEB352X2PEL	14103334C	DUCT BANK 3IN EB35 2X2 PRI EAST LOCAL
DB3INEB352X2PWL	14103334D	DUCT BANK 3IN EB35 2X2 PRI WEST LOCAL
DB3INEB352X2PN	14103334E	DUCT BANK 3IN EB35 2X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	4	FT	14103334
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.4	FT	14103334
4	0000001423	CONCRETE 2000 PSI	.08	FT	14103334

DB3INEB353X2PEA	14103336A	DUCT BANK 3IN EB35 3X2 PRI EAST ARTERIAL
DB3INEB353X2PWA	14103336B	DUCT BANK 3IN EB35 3X2 PRI WEST ARTERIAL
DB3INEB353X2PEL	14103336C	DUCT BANK 3IN EB35 3X2 PRI EAST LOCAL
DB3INEB353X2PWL	14103336D	DUCT BANK 3IN EB35 3X2 PRI WEST LOCAL
DB3INEB353X2PN	14103336E	DUCT BANK 3IN EB35 3X2 PRI NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	6	FT	14103336
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.8	FT	14103336
4	0000001423	CONCRETE 2000 PSI	.08	FT	14103336

DB4INEB351X2PEA	14103342A	DUCT BANK 4IN EB35 1X2 PRI EAST ARTERIAL
DB4INEB351X2PWA	14103342B	DUCT BANK 4IN EB35 1X2 PRI WEST ARTERIAL
DB4INEB351X2PEL	14103342C	DUCT BANK 4IN EB35 1X2 PRI EAST LOCAL
DB4INEB351X2PWL	14103342D	DUCT BANK 4IN EB35 1X2 PRI WEST LOCAL
DB4INEB351X2PN	14103342E	DUCT BANK 4IN EB35 1X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	2	FT	14103342
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14103342
3	0000001423	CONCRETE 2000 PSI	.06	FT	14103342

DB4INEB352X2PEA	14103344A	DUCT BANK 4IN EB35 2X2 PRI EAST ARTERIAL
DB4INEB352X2PWA	14103344B	DUCT BANK 4IN EB35 2X2 PRI WEST ARTERIAL
DB4INEB352X2PEL	14103344C	DUCT BANK 4IN EB35 2X2 PRI EAST LOCAL
DB4INEB352X2PWL	14103344D	DUCT BANK 4IN EB35 2X2 PRI WEST LOCAL
DB4INEB352X2PN	14103344E	DUCT BANK 4IN EB35 2X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	4	FT	14103344
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14103344
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14103344
4	0000001423	CONCRETE 2000 PSI	.08	FT	14103344

	CIVIL	1410-33
	CONDUITS AND DUCT BANKS	Sheet 4 of 4
Rev. Date	DUCT BANKS TYPE EB-35 CONDUIT (2, 4, OR 6-CONDUITS)	11/01

CU-ID	CU-REF	CU-DESCRIPTION
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DB4INEB353X2PEA	14103346A	DUCT BANK 4IN EB35 3X2 PRI EAST ARTERIAL
DB4INEB353X2PWA	14103346B	DUCT BANK 4IN EB35 3X2 PRI WEST ARTERIAL
DB4INEB353X2PEL	14103346C	DUCT BANK 4IN EB35 3X2 PRI EAST LOCAL
DB4INEB353X2PWL	14103346D	DUCT BANK 4IN EB35 3X2 PRI WEST LOCAL
DB4INEB353X2PN	14103346E	DUCT BANK 4IN EB35 3X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	6 FT	14103346
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4 FT	14103346
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.8 FT	14103346
4	0000001423	CONCRETE 2000 PSI	.11 FT	14103346

DB5INEB351X2PEA	14103352A	DUCT BANK 5IN EB35 1X2 PRI EAST ARTERIAL
DB5INEB351X2PWA	14103352B	DUCT BANK 5IN EB35 1X2 PRI WEST ARTERIAL
DB5INEB351X2PEL	14103352C	DUCT BANK 5IN EB35 1X2 PRI EAST LOCAL
DB5INEB351X2PWL	14103352D	DUCT BANK 5IN EB35 1X2 PRI WEST LOCAL
DB5INEB351X2PN	14103352E	DUCT BANK 5IN EB35 1X2 PRI NETWORK


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	2 FT	14103352
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4 FT	14103352
3	0000001423	CONCRETE 2000 PSI	.06 FT	14103352

DB5INEB352X2PEA	14103354A	DUCT BANK 5IN EB35 2X2 PRI EAST ARTERIAL
DB5INEB352X2PWA	14103354B	DUCT BANK 5IN EB35 2X2 PRI WEST ARTERIAL
DB5INEB352X2PEL	14103354C	DUCT BANK 5IN EB35 2X2 PRI EAST LOCAL
DB5INEB352X2PWL	14103354D	DUCT BANK 5IN EB35 2X2 PRI WEST LOCAL
DB5INEB352X2PN	14103354E	DUCT BANK 5IN EB35 2X2 PRI NETWORK

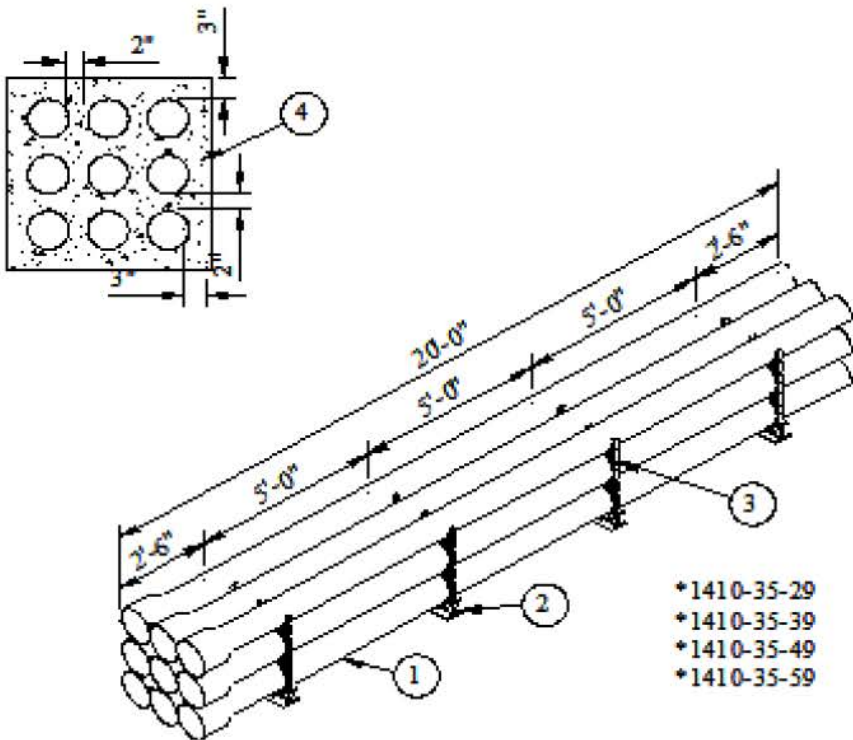
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	4 FT	14103354
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4 FT	14103354
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.4 FT	14103354
4	0000001423	CONCRETE 2000 PSI	.08 FT	14103354

DB5INEB353X2PEA	14103356A	DUCT BANK 5IN EB35 3X2 PRI EAST ARTERIAL
DB5INEB353X2PWA	14103356B	DUCT BANK 5IN EB35 3X2 PRI WEST ARTERIAL
DB5INEB353X2PEL	14103356C	DUCT BANK 5IN EB35 3X2 PRI EAST LOCAL
DB5INEB353X2PWL	14103356D	DUCT BANK 5IN EB35 3X2 PRI WEST LOCAL
DB5INEB353X2PN	14103356E	DUCT BANK 5IN EB35 3X2 PRI NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	6 FT	14103356
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4 FT	14103356
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.8 FT	14103356
4	0000001423	CONCRETE 2000 PSI	.14 FT	14103356

1410-35	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE EB-35 CONDUIT (9-CONDUITS)	
Sheet 1 of 2		
11/01		Rev. Date

1410-35 DUCT BANKS TYPE EB-35 CONDUIT (9-CONDUITS)



- *1410-35-29
- *1410-35-39
- *1410-35-49
- *1410-35-59

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 USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.

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CIVIL

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CONDUITS AND DUCT BANKS

Sheet 2 of 2

DUCT BANKS TYPE EB-35 CONDUIT (9-CONDUITS)

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CU

CU-ID

CU-REF

CU-DESCRIPTION

DB2INEB353X3PEA	14103529A	DUCT BANK 2IN EB35 3X3 PRI EAST ARTERIAL
DB2INEB353X3PWA	14103529B	DUCT BANK 2IN EB35 3X3 PRI WEST ARTERIAL
DB2INEB353X3PEL	14103529C	DUCT BANK 2IN EB35 3X3 PRI EAST LOCAL
DB2INEB353X3PWL	14103529D	DUCT BANK 2IN EB35 3X3 PRI WEST LOCAL
DB2INEB353X3PN	14103529E	DUCT BANK 2IN EB35 3X3 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14103529
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14103529
3	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	1.2	FT	14103529
4	0000001423	CONCRETE 2000 PSI	.08	FT	14103529

DB3INEB353X3PEA	14103539A	DUCT BANK 3IN EB35 3X3 PRI EAST ARTERIAL
DB3INEB353X3PWA	14103539B	DUCT BANK 3IN EB35 3X3 PRI WEST ARTERIAL
DB3INEB353X3PEL	14103539C	DUCT BANK 3IN EB35 3X3 PRI EAST LOCAL
DB3INEB353X3PWL	14103539D	DUCT BANK 3IN EB35 3X3 PRI WEST LOCAL
DB3INEB353X3PN	14103539E	DUCT BANK 3IN EB35 3X3 PRI NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	9	FT	14103539
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	1.2	FT	14103539
4	0000001423	CONCRETE 2000 PSI	.08	FT	14103539

DB4INEB353X3PEA	14103549A	DUCT BANK 4IN EB35 3X3 PRI EAST ARTERIAL
DB4INEB353X3PWA	14103549B	DUCT BANK 4IN EB35 3X3 PRI WEST ARTERIAL
DB4INEB353X3PEL	14103549C	DUCT BANK 4IN EB35 3X3 PRI EAST LOCAL
DB4INEB353X3PWL	14103549D	DUCT BANK 4IN EB35 3X3 PRI WEST LOCAL
DB4INEB353X3PN	14103549E	DUCT BANK 4IN EB35 3X3 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14103549
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14103549
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14103549
4	0000001423	CONCRETE 2000 PSI	.15	FT	14103549

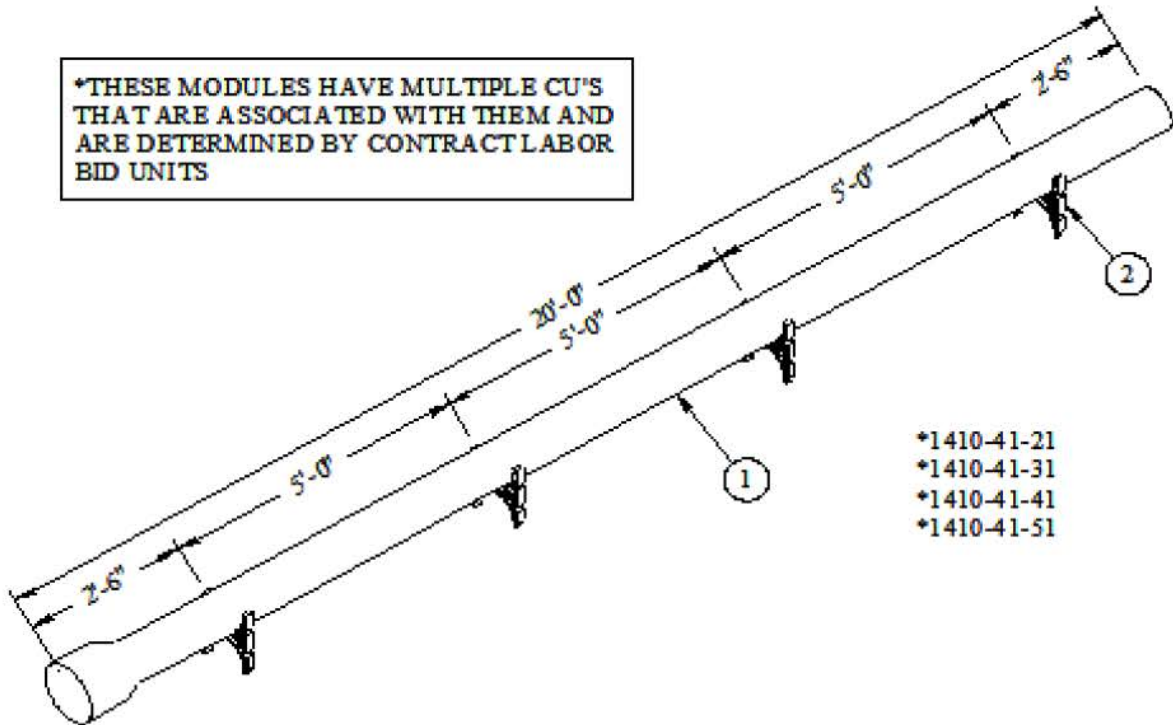
DB5INEB353X3PEA	14103559A	DUCT BANK 5IN EB35 3X3 PRI EAST ARTERIAL
DB5INEB353X3PWA	14103559B	DUCT BANK 5IN EB35 3X3 PRI WEST ARTERIAL
DB5INEB353X3PEL	14103559C	DUCT BANK 5IN EB35 3X3 PRI EAST LOCAL
DB5INEB353X3PWL	14103559D	DUCT BANK 5IN EB35 3X3 PRI WEST LOCAL
DB5INEB353X3PN	14103559E	DUCT BANK 5IN EB35 3X3 PRI NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14103559
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14103559
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14103559
4	0000001423	CONCRETE 2000 PSI	.23	FT	14103559

1410-41	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE DB-60 CONDUIT (1-CONDUIT)	
Sheet 1 of 4		
11/01		Rev. Date

1410-41 DUCT BANKS TYPE DB-60 CONDUIT (1-CONDUIT)

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS**



- *1410-41-21
- *1410-41-31
- *1410-41-41
- *1410-41-51

SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.


ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.

ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-41 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-43 THROUGH 1410-45 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.

ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DIRECT BURIED INSTALLATIONS.

SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 6-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 4-IN. IN ANY DIMENSION.

	CIVIL	1410-41
	CONDUITS AND DUCT BANKS	Sheet 2 of 4
Rev. Date	DUCT BANKS TYPE DB-60 CONDUIT (1-CONDUIT)	11/01

CU

CU-ID	CU-REF	CU-DESCRIPTION
DB2INDB601X1PEA	14104121A	DUCT BANK 2IN DB60 1X1 PRI EAST ARTERIAL
DB2INDB601X1PWA	14104121B	DUCT BANK 2IN DB60 1X1 PRI WEST ARTERIAL
DB2INDB601X1PEL	14104121C	DUCT BANK 2IN DB60 1X1 PRI EAST LOCAL
DB2INDB601X1PWL	14104121D	DUCT BANK 2IN DB60 1X1 PRI WEST LOCAL
DB2INDB601X1PN	14104121E	DUCT BANK 2IN DB60 1X1 PRI NETWORK
DB2INDB601X1SEA	14104121F	DUCT BANK 2IN DB60 1X1 SEC EAST ARTERIAL
DB2INDB601X1SWA	14104121G	DUCT BANK 2IN DB60 1X1 SEC WEST ARTERIAL
DB2INDB601X1SEL	14104121H	DUCT BANK 2IN DB60 1X1 SEC EAST LOCAL
DB2INDB601X1SWL	14104121I	DUCT BANK 2IN DB60 1X1 SEC WEST LOCAL
DB2INDB601X1SN	14104121J	DUCT BANK 2IN DB60 1X1 SEC NETWORK


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	1 FT	14104121
2	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.2 FT	14104121

DB3INDB601X1PEA	14104131A	DUCT BANK 3IN DB60 1X1 PRI EAST ARTERIAL
DB3INDB601X1PWA	14104131B	DUCT BANK 3IN DB60 1X1 PRI WEST ARTERIAL
DB3INDB601X1PEL	14104131C	DUCT BANK 3IN DB60 1X1 PRI EAST LOCAL
DB3INDB601X1PWL	14104131D	DUCT BANK 3IN DB60 1X1 PRI WEST LOCAL
DB3INDB601X1PN	14104131E	DUCT BANK 3IN DB60 1X1 PRI NETWORK
DB3INDB601X1SEA	14104131F	DUCT BANK 3IN DB60 1X1 SEC EAST ARTERIAL
DB3INDB601X1SWA	14104131G	DUCT BANK 3IN DB60 1X1 SEC WEST ARTERIAL
DB3INDB601X1SEL	14104131H	DUCT BANK 3IN DB60 1X1 SEC EAST LOCAL
DB3INDB601X1SWL	14104131I	DUCT BANK 3IN DB60 1X1 SEC WEST LOCAL
DB3INDB601X1SN	14104131J	DUCT BANK 3IN DB60 1X1 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	1 FT	14104131
2	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.2 FT	14104131


DB4INDB601X1PEA	14104141A	DUCT BANK 4IN DB60 1X1 PRI EAST ARTERIAL
DB4INDB601X1PWA	14104141B	DUCT BANK 4IN DB60 1X1 PRI WEST ARTERIAL
DB4INDB601X1PEL	14104141C	DUCT BANK 4IN DB60 1X1 PRI EAST LOCAL
DB4INDB601X1PWL	14104141D	DUCT BANK 4IN DB60 1X1 PRI WEST LOCAL
DB4INDB601X1PN	14104141E	DUCT BANK 4IN DB60 1X1 PRI NETWORK
DB4INDB601X1SEA	14104141F	DUCT BANK 4IN DB60 1X1 SEC EAST ARTERIAL
DB4INDB601X1SWA	14104141G	DUCT BANK 4IN DB60 1X1 SEC WEST ARTERIAL
DB4INDB601X1SEL	14104141H	DUCT BANK 4IN DB60 1X1 SEC EAST LOCAL
DB4INDB601X1SWL	14104141I	DUCT BANK 4IN DB60 1X1 SEC WEST LOCAL
DB4INDB601X1SN	14104141J	DUCT BANK 4IN DB60 1X1 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	1 FT	14104141
2	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.2 FT	14104141

1410-41	CIVIL	
Sheet 3 of 4	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS TYPE DB-60 CONDUIT (1-CONDUIT)	Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB5INDB601X1PEA	14104151A	DUCT BANK 5IN DB60 1X1 PRI EAST ARTERIAL
DB5INDB601X1PWA	14104151B	DUCT BANK 5IN DB60 1X1 PRI WEST ARTERIAL
DB5INDB601X1PEL	14104151C	DUCT BANK 5IN DB60 1X1 PRI EAST LOCAL
DB5INDB601X1PWL	14104151D	DUCT BANK 5IN DB60 1X1 PRI WEST LOCAL
DB5INDB601X1PN	14104151E	DUCT BANK 5IN DB60 1X1 PRI NETWORK
DB5INDB601X1SEA	14104151F	DUCT BANK 5IN DB60 1X1 SEC EAST ARTERIAL
DB5INDB601X1SWA	14104151G	DUCT BANK 5IN DB60 1X1 SEC WEST ARTERIAL
DB5INDB601X2SWA	14104151G	DUCT BANK 5IN DB60 1X2 SEC WEST ARTERIAL
DB5INDB601X1SEL	14104151H	DUCT BANK 5IN DB60 1X1 SEC EAST LOCAL
DB5INDB601X1SWL	14104151I	DUCT BANK 5IN DB60 1X1 SEC WEST LOCAL
DB5INDB601X1SN	14104151J	DUCT BANK 5IN DB60 1X1 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	1 FT	14104151
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.2 FT	14104151
3	0000001423	CONCRETE 2000 PSI	.04 FT	14104151

	<p style="text-align: center;">CIVIL</p> <p style="text-align: center;">CONDUITS AND DUCT BANKS</p> <p style="text-align: center;">DUCT BANKS TYPE DB-60 CONDUIT (1-CONDUIT)</p>	1410-41
		Sheet 4 of 4
Rev. Date		11/01

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Sheet 1 of 6
11/01

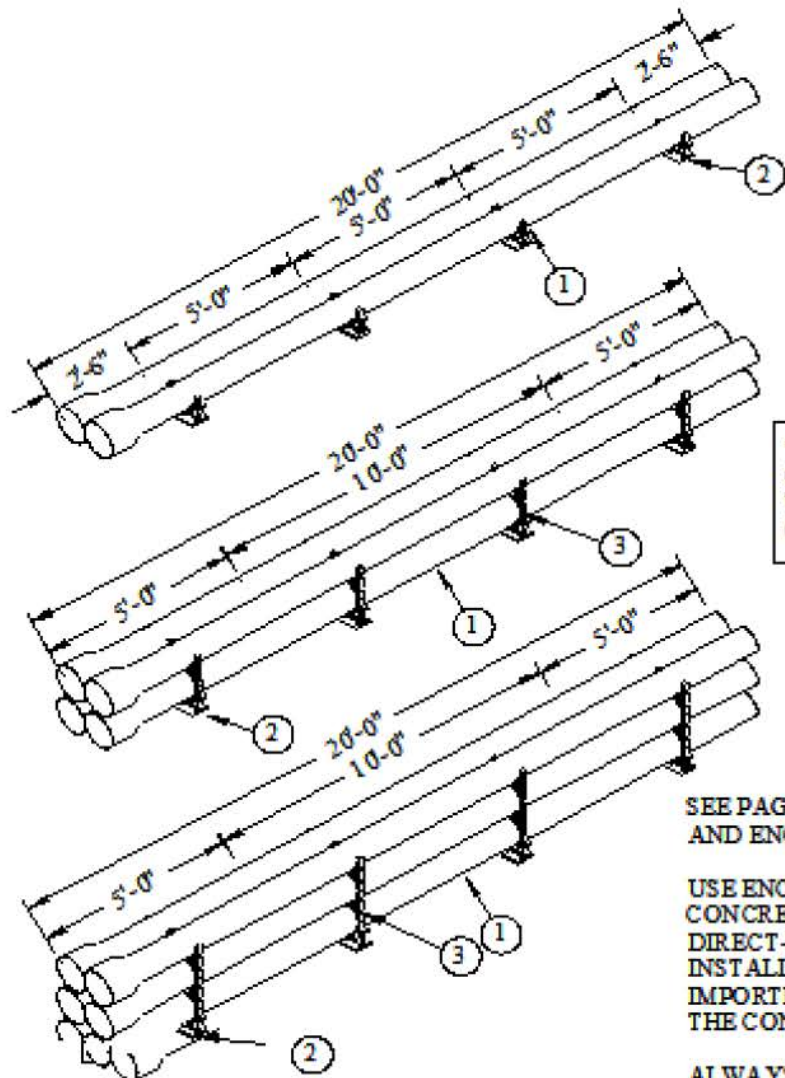
CIVIL

CONDUITS AND DUCT BANKS

DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)


Rev. Date

1410-43 DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)



- *1410-43-22
- *1410-43-32
- *1410-43-42
- *1410-43-52

- *1410-43-24
- *1410-43-34
- *1410-43-44
- *1410-43-54

*THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS

- *1410-43-26
- *1410-43-36
- *1410-43-46
- *1410-43-56


SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.

ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.

ALWAYS ENCASE 5-IN. AND 6-IN. CONDUIT S.

- * USE INTERMEDIATE CONDUIT MODULES 1410-41 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-43 THROUGH 1410-45 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN TWO CONDUITS WIDE AND FOUR CONDUITS HIGH.
- * ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DB AND CONCRETE-CAPPED INSTALLATIONS.
- * SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 6-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 4-IN. IN ANY DIMENSION.

1410-43	CIVIL	
Sheet 3 of 6	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)	
		Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB3INDB601X2PEA	14104332A	DUCT BANK 3IN DB60 1X2 PRI EAST ARTERIAL
DB3INDB601X2PWA	14104332B	DUCT BANK 3IN DB60 1X2 PRI WEST ARTERIAL
DB3INDB601X2PEL	14104332C	DUCT BANK 3IN DB60 1X2 PRI EAST LOCAL
DB3INDB601X2PWL	14104332D	DUCT BANK 3IN DB60 1X2 PRI WEST LOCAL
DB3INDB601X2PN	14104332E	DUCT BANK 3IN DB60 1X2 PRI NETWORK
DB3INDB601X2SEA	14104332F	DUCT BANK 3IN DB60 1X2 SEC EAST ARTERIAL
DB3INDB601X2SWA	14104332G	DUCT BANK 3IN DB60 1X2 SEC WEST ARTERIAL
DB3INDB601X2SEL	14104332H	DUCT BANK 3IN DB60 1X2 SEC EAST LOCAL
DB3INDB601X2SWL	14104332I	DUCT BANK 3IN DB60 1X2 SEC WEST LOCAL
DB3INDB601X2SN	14104332J	DUCT BANK 3IN DB60 1X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	2 FT	14104332

DB3INDB602X2PEA	14104334A	DUCT BANK 3IN DB60 2X2 PRI EAST ARTERIAL
DB3INDB602X2PWA	14104334B	DUCT BANK 3IN DB60 2X2 PRI WEST ARTERIAL
DB3INDB602X2PEL	14104334C	DUCT BANK 3IN DB60 2X2 PRI EAST LOCAL
DB3INDB602X2PWL	14104334D	DUCT BANK 3IN DB60 2X2 PRI WEST LOCAL
DB3INDB602X2PN	14104334E	DUCT BANK 3IN DB60 2X2 PRI NETWORK
DB3INDB602X2SEA	14104334F	DUCT BANK 3IN DB60 2X2 SEC EAST ARTERIAL
DB3INDB602X2SWA	14104334G	DUCT BANK 3IN DB60 2X2 SEC WEST ARTERIAL
DB3INDB602X2SEL	14104334H	DUCT BANK 3IN DB60 2X2 SEC EAST LOCAL
DB3INDB602X2SWL	14104334I	DUCT BANK 3IN DB60 2X2 SEC WEST LOCAL
DB3INDB602X2SN	14104334J	DUCT BANK 3IN DB60 2X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	4 FT	14104334
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.4 FT	14104334

DB3INDB603X2PEA	14104336A	DUCT BANK 3IN DB60 3X2 PRI EAST ARTERIAL
DB3INDB603X2PWA	14104336B	DUCT BANK 3IN DB60 3X2 PRI WEST ARTERIAL
DB3INDB603X2PEL	14104336C	DUCT BANK 3IN DB60 3X2 PRI EAST LOCAL
DB3INDB603X2PWL	14104336D	DUCT BANK 3IN DB60 3X2 PRI WEST LOCAL
DB3INDB603X2PN	14104336E	DUCT BANK 3IN DB60 3X2 PRI NETWORK
DB3INDB603X2SEA	14104336F	DUCT BANK 3IN DB60 3X2 SEC EAST ARTERIAL
DB3INDB603X2SWA	14104336G	DUCT BANK 3IN DB60 3X2 SEC WEST ARTERIAL
DB3INDB603X2SEL	14104336H	DUCT BANK 3IN DB60 3X2 SEC EAST LOCAL
DB3INDB603X2SWL	14104336I	DUCT BANK 3IN DB60 3X2 SEC WEST LOCAL
DB3INDB603X2SN	14104336J	DUCT BANK 3IN DB60 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	6 FT	14104336
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.8 FT	14104336

	CIVIL	1410-43
	CONDUITS AND DUCT BANKS	Sheet 4 of 6
Rev. Date	DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)	11/01

CU-ID	CU-REF	CU-DESCRIPTION
DB4INDB601X2PEA	14104342A	DUCT BANK 4IN DB60 1X2 PRI EAST ARTERIAL
DB4INDB601X2PWA	14104342B	DUCT BANK 4IN DB60 1X2 PRI WEST ARTERIAL
DB4INDB601X2PEL	14104342C	DUCT BANK 4IN DB60 1X2 PRI EAST LOCAL
DB4INDB601X2PWL	14104342D	DUCT BANK 4IN DB60 1X2 PRI WEST LOCAL
DB4INDB601X2PN	14104342E	DUCT BANK 4IN DB60 1X2 PRI NETWORK
DB4INDB601X2SEA	14104342F	DUCT BANK 4IN DB60 1X2 SEC EAST ARTERIAL
DB4INDB601X2SWA	14104342G	DUCT BANK 4IN DB60 1X2 SEC WEST ARTERIAL
DB4INDB601X2SEL	14104342H	DUCT BANK 4IN DB60 1X2 SEC EAST LOCAL
DB4INDB601X2SWL	14104342I	DUCT BANK 4IN DB60 1X2 SEC WEST LOCAL
DB4INDB601X2SN	14104342J	DUCT BANK 4IN DB60 1X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	2	FT	14104342
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14104342

DB4INDB602X2PEA	14104344A	DUCT BANK 4IN DB60 2X2 PRI EAST ARTERIAL
DB4INDB602X2PWA	14104344B	DUCT BANK 4IN DB60 2X2 PRI WEST ARTERIAL
DB4INDB602X2PEL	14104344C	DUCT BANK 4IN DB60 2X2 PRI EAST LOCAL
DB4INDB602X2PWL	14104344D	DUCT BANK 4IN DB60 2X2 PRI WEST LOCAL
DB4INDB602X2PN	14104344E	DUCT BANK 4IN DB60 2X2 PRI NETWORK
DB4INDB602X2SEA	14104344F	DUCT BANK 4IN DB60 2X2 SEC EAST ARTERIAL
DB4INDB602X2SWA	14104344G	DUCT BANK 4IN DB60 2X2 SEC WEST ARTERIAL
DB4INDB602X2SEL	14104344H	DUCT BANK 4IN DB60 2X2 SEC EAST LOCAL
DB4INDB602X2SWL	14104344I	DUCT BANK 4IN DB60 2X2 SEC WEST LOCAL
DB4INDB602X2SN	14104344J	DUCT BANK 4IN DB60 2X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	4	FT	14104344
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14104344
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14104344

DB4INDB603X2PEA	14104346A	DUCT BANK 4IN DB60 3X2 PRI EAST ARTERIAL
DB4INDB603X2PWA	14104346B	DUCT BANK 4IN DB60 3X2 PRI WEST ARTERIAL
DB4INDB603X2PEL	14104346C	DUCT BANK 4IN DB60 3X2 PRI EAST LOCAL
DB4INDB603X2PWL	14104346D	DUCT BANK 4IN DB60 3X2 PRI WEST LOCAL
DB4INDB603X2PN	14104346E	DUCT BANK 4IN DB60 3X2 PRI NETWORK
DB4INDB603X2SEA	14104346F	DUCT BANK 4IN DB60 3X2 SEC EAST ARTERIAL
DB4INDB603X2SWA	14104346G	DUCT BANK 4IN DB60 3X2 SEC WEST ARTERIAL
DB4INDB603X2SEL	14104346H	DUCT BANK 4IN DB60 3X2 SEC EAST LOCAL
DB4INDB603X2SWL	14104346I	DUCT BANK 4IN DB60 3X2 SEC WEST LOCAL
DB4INDB603X2SN	14104346J	DUCT BANK 4IN DB60 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	6	FT	14104346
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14104346
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14104346

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Sheet 5 of 6	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)	Rev. Date

CU-ID CU-REF CU-DESCRIPTION

DB5INDB601X2PEA	14104352A	DUCT BANK 5IN DB60 1X2 PRI EAST ARTERIAL
DB5INDB601X2PWA	14104352B	DUCT BANK 5IN DB60 1X2 PRI WEST ARTERIAL
DB5INDB601X2PEL	14104352C	DUCT BANK 5IN DB60 1X2 PRI EAST LOCAL
DB5INDB601X2PWL	14104352D	DUCT BANK 5IN DB60 1X2 PRI WEST LOCAL
DB5INDB601X2PN	14104352E	DUCT BANK 5IN DB60 1X2 PRI NETWORK
DB5INDB601X2SEA	14104352F	DUCT BANK 5IN DB60 1X2 SEC EAST ARTERIAL
DB5INDB601X2SEL	14104352H	DUCT BANK 5IN DB60 1X2 SEC EAST LOCAL
DB5INDB601X2SWL	14104352I	DUCT BANK 5IN DB60 1X2 SEC WEST LOCAL
DB5INDB601X2SN	14104352J	DUCT BANK 5IN DB60 1X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	2	FT	14104352
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14104352
3	0000001423	CONCRETE 2000 PSI	.06	FT	14104352

DB5INDB602X2PEA	14104354A	DUCT BANK 5IN DB60 2X2 PRI EAST ARTERIAL
DB5INDB602X2PWA	14104354B	DUCT BANK 5IN DB60 2X2 PRI WEST ARTERIAL
DB5INDB602X2PEL	14104354C	DUCT BANK 5IN DB60 2X2 PRI EAST LOCAL
DB5INDB602X2PWL	14104354D	DUCT BANK 5IN DB60 2X2 PRI WEST LOCAL
DB5INDB602X2PN	14104354E	DUCT BANK 5IN DB60 2X2 PRI NETWORK
DB5INDB602X2SEA	14104354F	DUCT BANK 5IN DB60 2X2 SEC EAST ARTERIAL
DB5INDB602X2SWA	14104354G	DUCT BANK 5IN DB60 2X2 SEC WEST ARTERIAL
DB5INDB602X2SEL	14104354H	DUCT BANK 5IN DB60 2X2 SEC EAST LOCAL
DB5INDB602X2SWL	14104354I	DUCT BANK 5IN DB60 2X2 SEC WEST LOCAL
DB5INDB602X2SN	14104354J	DUCT BANK 5IN DB60 2X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	4	FT	14104354
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14104354
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14104354
4	0000001423	CONCRETE 2000 PSI	.08	FT	14104354

DB5INDB603X2PEA	14104356A	DUCT BANK 5IN DB60 3X2 PRI EAST ARTERIAL
DB5INDB603X2PWA	14104356B	DUCT BANK 5IN DB60 3X2 PRI WEST ARTERIAL
DB5INDB603X2PEL	14104356C	DUCT BANK 5IN DB60 3X2 PRI EAST LOCAL
DB5INDB603X2PWL	14104356D	DUCT BANK 5IN DB60 3X2 PRI WEST LOCAL
DB5INDB603X2PN	14104356E	DUCT BANK 5IN DB60 3X2 PRI NETWORK
DB5INDB603X2SEA	14104356F	DUCT BANK 5IN DB60 3X2 SEC EAST ARTERIAL
DB5INDB603X2SWA	14104356G	DUCT BANK 5IN DB60 3X2 SEC WEST ARTERIAL
DB5INDB603X2SEL	14104356H	DUCT BANK 5IN DB60 3X2 SEC EAST LOCAL
DB5INDB603X2SWL	14104356I	DUCT BANK 5IN DB60 3X2 SEC WEST LOCAL
DB5INDB603X2SN	14104356J	DUCT BANK 5IN DB60 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	6	FT	14104356
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14104356
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14104356
4	0000001423	CONCRETE 2000 PSI	.14	FT	14104356

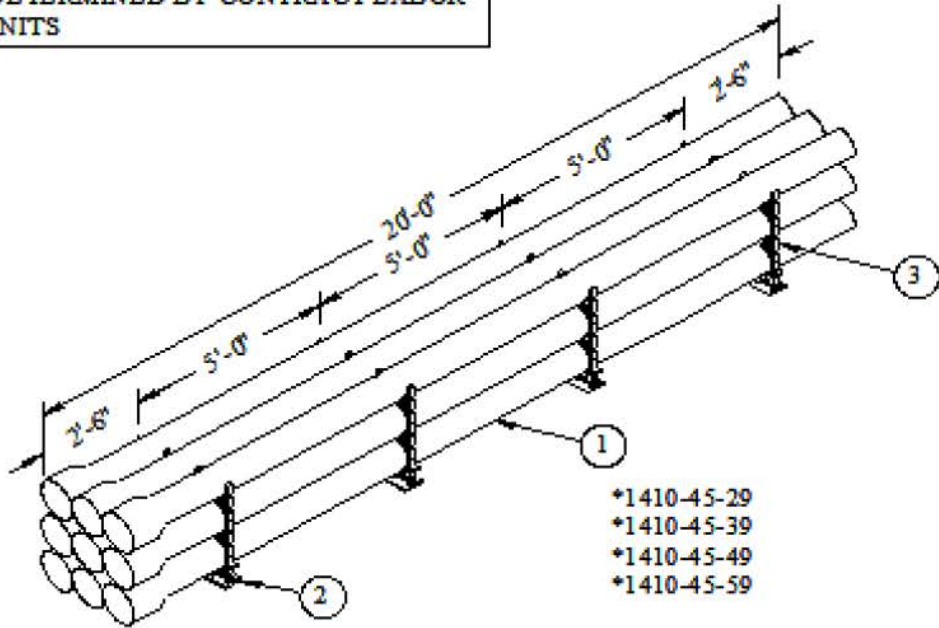
	CIVIL CONDUITS AND DUCT BANKS	1410-43
	DUCT BANKS TYPE DB-60 CONDUIT (2, 4, OR 6-CONDUITS)	Sheet 6 of 6
Rev. Date		11/01

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1410-45	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE DB-60 CONDUIT (9-CONDUITS)	
Sheet 1 of 4		
11/01		Rev. Date

1410-45 DUCT BANKS TYPE DB-60 CONDUIT (9-CONDUITS)

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS**



SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS.
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ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-41 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-43 THROUGH 1410-45 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.

ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DB AND CONCRETE-CAPPED INSTALLATIONS.

SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 4-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 6-IN. IN ANY DIMENSION.

 Rev. Date	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE DB-60 CONDUIT (9-CONDUITS)	1410-45 Sheet 2 of 4
		11/01

CU

CU-ID	CU-REF	CU-DESCRIPTION
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DB2INDB603X3PEA	14104529A	DUCT BANK 2IN DB60 3X3 PRI EAST ARTERIAL
DB2INDB603X3PWA	14104529B	DUCT BANK 2IN DB60 3X3 PRI WEST ARTERIAL
DB2INDB603X3PEL	14104529C	DUCT BANK 2IN DB60 3X3 PRI EAST LOCAL
DB2INDB603X3PWL	14104529D	DUCT BANK 2IN DB60 3X3 PRI WEST LOCAL
DB2INDB603X3PN	14104529E	DUCT BANK 2IN DB60 3X3 PRI NETWORK
DB2INDB603X3SEA	14104529F	DUCT BANK 2IN DB60 3X3 SEC EAST ARTERIAL
DB2INDB603X3SWA	14104529G	DUCT BANK 2IN DB60 3X3 SEC WEST ARTERIAL
DB2INDB603X3SEL	14104529H	DUCT BANK 2IN DB60 3X3 SEC EAST LOCAL
DB2INDB603X3SWL	14104529I	DUCT BANK 2IN DB60 3X3 SEC WEST LOCAL
DB2INDB603X3SN	14104529J	DUCT BANK 2IN DB60 3X3 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	9	FT	14104529
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14104529
3	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	1.2	FT	14104529

DB3INDB603X3PEA	14104539A	DUCT BANK 3IN DB60 3X3 PRI EAST ARTERIAL
DB3INDB603X3PWA	14104539B	DUCT BANK 3IN DB60 3X3 PRI WEST ARTERIAL
DB3INDB603X3PEL	14104539C	DUCT BANK 3IN DB60 3X3 PRI EAST LOCAL
DB3INDB603X3PWL	14104539D	DUCT BANK 3IN DB60 3X3 PRI WEST LOCAL
DB3INDB603X3PN	14104539E	DUCT BANK 3IN DB60 3X3 PRI NETWORK
DB3INDB603X3SEA	14104539F	DUCT BANK 3IN DB60 3X3 SEC EAST ARTERIAL
DB3INDB603X3SWA	14104539G	DUCT BANK 3IN DB60 3X3 SEC WEST ARTERIAL
DB3INDB603X3SEL	14104539H	DUCT BANK 3IN DB60 3X3 SEC EAST LOCAL
DB3INDB603X3SWL	14104539I	DUCT BANK 3IN DB60 3X3 SEC WEST LOCAL
DB3INDB603X3SN	14104539J	DUCT BANK 3IN DB60 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14104539
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	1.2	FT	14104539


DB4INDB603X3PEA	14104549A	DUCT BANK 4IN DB60 3X3 PRI EAST ARTERIAL
DB4INDB603X3PWA	14104549B	DUCT BANK 4IN DB60 3X3 PRI WEST ARTERIAL
DB4INDB603X3PEL	14104549C	DUCT BANK 4IN DB60 3X3 PRI EAST LOCAL
DB4INDB603X3PWL	14104549D	DUCT BANK 4IN DB60 3X3 PRI WEST LOCAL
DB4INDB603X3PN	14104549E	DUCT BANK 4IN DB60 3X3 PRI NETWORK
DB4INDB603X3SEA	14104549F	DUCT BANK 4IN DB60 3X3 SEC EAST ARTERIAL
DB4INDB603X3SWA	14104549G	DUCT BANK 4IN DB60 3X3 SEC WEST ARTERIAL
DB4INDB603X3SEL	14104549H	DUCT BANK 4IN DB60 3X3 SEC EAST LOCAL
DB4INDB603X3SWL	14104549I	DUCT BANK 4IN DB60 3X3 SEC WEST LOCAL
DB4INDB603X3SN	14104549J	DUCT BANK 4IN DB60 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14104549
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14104549
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14104549


1410-45	CIVIL	
Sheet 3 of 4	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS TYPE DB-60 CONDUIT (9-CONDUITS)	Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB5INDB603X3PEA	14104559A	DUCT BANK 5IN DB60 3X3 PRI EAST ARTERIAL
DB5INDB603X3PWA	14104559B	DUCT BANK 5IN DB60 3X3 PRI WEST ARTERIAL
DB5INDB603X3PEL	14104559C	DUCT BANK 5IN DB60 3X3 PRI EAST LOCAL
DB5INDB603X3PWL	14104559D	DUCT BANK 5IN DB60 3X3 PRI WEST LOCAL
DB5INDB603X3PN	14104559E	DUCT BANK 5IN DB60 3X3 PRI NETWORK
DB5INDB603X3SEA	14104559F	DUCT BANK 5IN DB60 3X3 SEC EAST ARTERIAL
DB5INDB603X3SWA	14104559G	DUCT BANK 5IN DB60 3X3 SEC WEST ARTERIAL
DB5INDB603X3SEL	14104559H	DUCT BANK 5IN DB60 3X3 SEC EAST LOCAL
DB5INDB603X3SWL	14104559I	DUCT BANK 5IN DB60 3X3 SEC WEST LOCAL
DB5INDB603X3SN	14104559J	DUCT BANK 5IN DB60 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	9 FT	14104559
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6 FT	14104559
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2 FT	14104559
4	0000001423	CONCRETE 2000 PSI	.23 FT	14104559

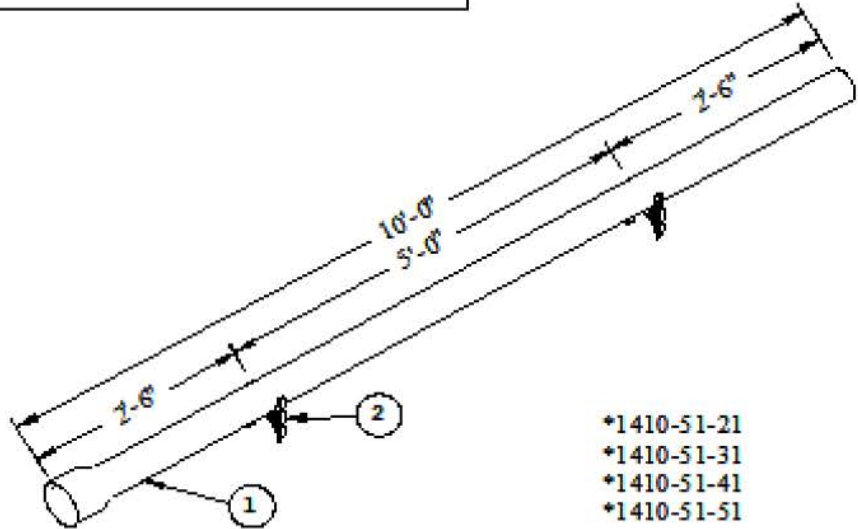
	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS TYPE DB-60 CONDUIT (9-CONDUITS)	1410-45
		Sheet 4 of 4
Rev. Date		11/01

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1410-51	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (1-CONDUIT)	
Sheet 1 of 4		
11/01		Rev. Date

1410-51 DUCT BANKS SCHEDULE 40 CONDUIT (1-CONDUIT)

*THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS



- *1410-51-21
- *1410-51-31
- *1410-51-41
- *1410-51-51

SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.


ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.

USE INTERMEDIATE CONDUIT MODULES 1410-51 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-53 THROUGH 1410-55 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.

ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DB AND CONCRETE-CAPPED INSTALLATIONS.

SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 4-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 6-IN. IN ANY DIMENSION.

	CIVIL	1410-51
	CONDUITS AND DUCT BANKS	Sheet 2 of 4
Rev. Date	DUCT BANKS SCHEDULE 40 CONDUIT (1-CONDUIT)	11/01

CU

CU-ID	CU-REF	CU-DESCRIPTION
DB2INSH401X1PEA	14105121A	DUCT BANK 2IN SH40 1X1 PRI EAST ARTERIAL
DB2INSH401X1PWA	14105121B	DUCT BANK 2IN SH40 1X1 PRI WEST ARTERIAL
DB2INSH401X1PEL	14105121C	DUCT BANK 2IN SH40 1X1 PRI EAST LOCAL
DB2INSH401X1PWL	14105121D	DUCT BANK 2IN SH40 1X1 PRI WEST LOCAL
DB2INSH401X1PN	14105121E	DUCT BANK 2IN SH40 1X1 PRI NETWORK
DB2INSH401X1SEA	14105121F	DUCT BANK 2IN SH40 1X1 SEC EAST ARTERIAL
DB2INSH401X1SWA	14105121G	DUCT BANK 2IN SH40 1X1 SEC WEST ARTERIAL
DB2INSH401X1SEL	14105121H	DUCT BANK 2IN SH40 1X1 SEC EAST LOCAL
DB2INSH401X1SWL	14105121I	DUCT BANK 2IN SH40 1X1 SEC WEST LOCAL
DB2INSH401X1SN	14105121J	DUCT BANK 2IN SH40 1X1 SEC NETWORK


ID	PART NUM	PART DESC	QTY	CU-REF
1	000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	1 FT	14105121
2	000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.2 FT	14105121

DB3INSH401X1PEA	14105131A	DUCT BANK 3IN SH40 1X1 PRI EAST ARTERIAL
DB3INSH401X1PWA	14105131B	DUCT BANK 3IN SH40 1X1 PRI WEST ARTERIAL
DB3INSH401X1PEL	14105131C	DUCT BANK 3IN SH40 1X1 PRI EAST LOCAL
DB3INSH401X1PWL	14105131D	DUCT BANK 3IN SH40 1X1 PRI WEST LOCAL
DB3INSH401X1PN	14105131E	DUCT BANK 3IN SH40 1X1 PRI NETWORK
DB3INSH401X1SEA	14105131F	DUCT BANK 3IN SH40 1X1 SEC EAST ARTERIAL
DB3INSH401X1SWA	14105131G	DUCT BANK 3IN SH40 1X1 SEC WEST ARTERIAL
DB3INSH401X1SEL	14105131H	DUCT BANK 3IN SH40 1X1 SEC EAST LOCAL
DB3INSH401X1SWL	14105131I	DUCT BANK 3IN SH40 1X1 SEC WEST LOCAL
DB3INSH401X1SN	14105131J	DUCT BANK 3IN SH40 1X1 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	1 FT	14105131
2	000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	.2 FT	14105131


DB4INSH401X1PEA	14105141A	DUCT BANK 4IN SH40 1X1 PRI EAST ARTERIAL
DB4INSH401X1PWA	14105141B	DUCT BANK 4IN SH40 1X1 PRI WEST ARTERIAL
DB4INSH401X1PEL	14105141C	DUCT BANK 4IN SH40 1X1 PRI EAST LOCAL
DB4INSH401X1PWL	14105141D	DUCT BANK 4IN SH40 1X1 PRI WEST LOCAL
DB4INSH401X1PN	14105141E	DUCT BANK 4IN SH40 1X1 PRI NETWORK
DB4INSH401X1SEA	14105141F	DUCT BANK 4IN SH40 1X1 SEC EAST ARTERIAL
DB4INSH401X1SWA	14105141G	DUCT BANK 4IN SH40 1X1 SEC WEST ARTERIAL
DB4INSH401X1SEL	14105141H	DUCT BANK 4IN SH40 1X1 SEC EAST LOCAL
DB4INSH401X1SWL	14105141I	DUCT BANK 4IN SH40 1X1 SEC WEST LOCAL
DB4INSH401X1SN	14105141J	DUCT BANK 4IN SH40 1X1 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	1 FT	14105141
2	000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.2 FT	14105141


1410-51	CIVIL	
Sheet 3 of 4	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS SCHEDULE 40 CONDUIT (1-CONDUIT)	Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB5INSH401X1PEA	14105151A	DUCT BANK 5IN SH40 1X1 PRI EAST ARTERIAL
DB5INSH401X1PWA	14105151B	DUCT BANK 5IN SH40 1X1 PRI WEST ARTERIAL
DB5INSH401X1PEL	14105151C	DUCT BANK 5IN SH40 1X1 PRI EAST LOCAL
DB5INSH401X1PWL	14105151D	DUCT BANK 5IN SH40 1X1 PRI WEST LOCAL
DB5INSH401X1PN	14105151E	DUCT BANK 5IN SH40 1X1 PRI NETWORK
DB5INSH401X1SEA	14105151F	DUCT BANK 5IN SH40 1X1 SEC EAST ARTERIAL
DB5INSH401X1SWA	14105151G	DUCT BANK 5IN SH40 1X1 SEC WEST ARTERIAL
DB5INSH401X1SEL	14105151H	DUCT BANK 5IN SH40 1X1 SEC EAST LOCAL
DB5INSH401X1SWL	14105151I	DUCT BANK 5IN SH40 1X1 SEC WEST LOCAL
DB5INSH401X1SN	14105151J	DUCT BANK 5IN SH40 1X1 SEC NETWORK

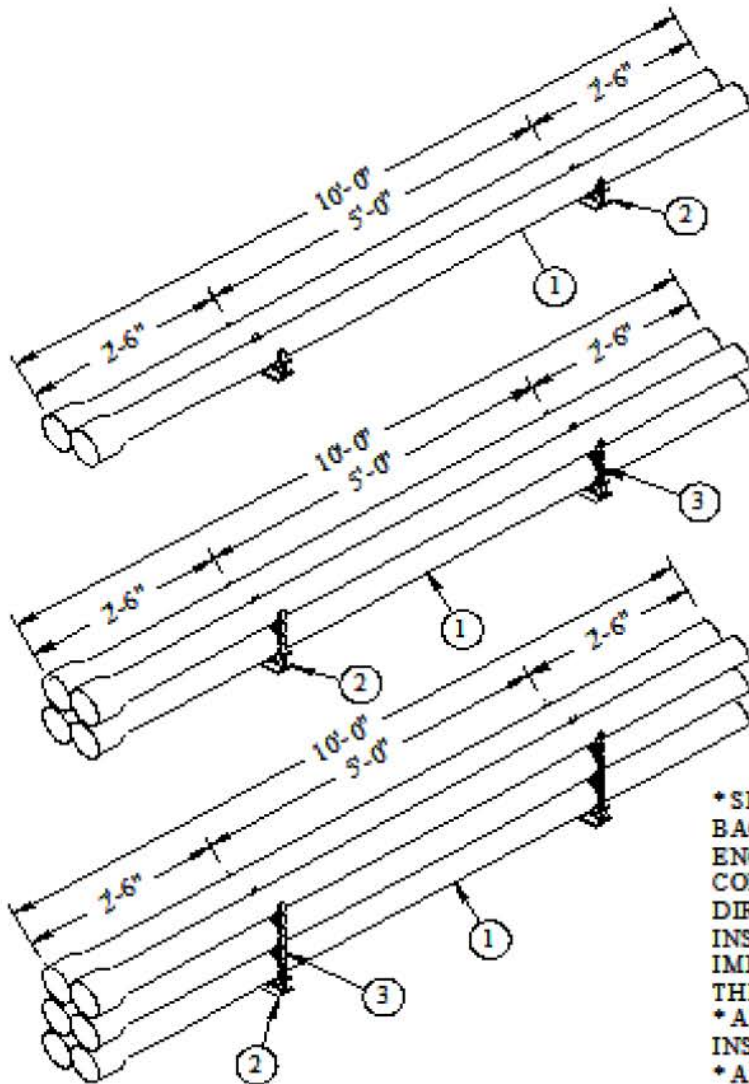
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	1 FT	14105151
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.2 FT	14105151
3	0000001423	CONCRETE 2000 PSI	.04 FT	14105151

	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (1-CONDUIT)	1410-51
		Sheet 4 of 4
Rev. Date		11/01

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1410-53	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)	
Sheet 1 of 6		
11/01		Rev. Date

1410-53 DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)



- *1410-53-22
- *1410-53-32
- *1410-53-42
- *1410-53-52

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNIT S**

- *1410-53-24
- *1410-53-34
- *1410-53-44
- *1410-53-54


- *1410-53-26
- *1410-53-36
- *1410-53-46
- *1410-53-56

- * SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS. * USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.
- * ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.
- * ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-51 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-53 THROUGH 1410-55 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.

ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DB AND CONCRETE-CAPPED INSTALLATIONS.

SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 6-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 4-IN. IN ANY DIMENSION.

1410-53	CIVIL	
Sheet 3 of 6	CONDUITS AND DUCT BANKS	
11/01	DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)	
		Rev. Date

CU-ID	CU-REF	CU-DESCRIPTION
DB3INSH401X2PEA	14105332A	DUCT BANK 3IN SH40 1X2 PRI EAST ARTERIAL
DB3INSH401X2PWA	14105332B	DUCT BANK 3IN SH40 1X2 PRI WEST ARTERIAL
DB3INSH401X2PEL	14105332C	DUCT BANK 3IN SH40 1X2 PRI EAST LOCAL
DB3INSH401X2PWL	14105332D	DUCT BANK 3IN SH40 1X2 PRI WEST LOCAL
DB3INSH401X2PN	14105332E	DUCT BANK 3IN SH40 1X2 PRI NETWORK
DB3INSH401X2SEA	14105332F	DUCT BANK 3IN SH40 1X2 SEC EAST ARTERIAL
DB3INSH401X2SWA	14105332G	DUCT BANK 3IN SH40 1X2 SEC WEST ARTERIAL
DB3INSH401X2SEL	14105332H	DUCT BANK 3IN SH40 1X2 SEC EAST LOCAL
DB3INSH401X2SWL	14105332I	DUCT BANK 3IN SH40 1X2 SEC WEST LOCAL
DB3INSH401X2SN	14105332J	DUCT BANK 3IN SH40 1X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	2 FT	14105332

DB3INSH402X2PEA	14105334A	DUCT BANK 3IN SH40 2X2 PRI EAST ARTERIAL
DB3INSH402X2PWA	14105334B	DUCT BANK 3IN SH40 2X2 PRI WEST ARTERIAL
DB3INSH402X2PEL	14105334C	DUCT BANK 3IN SH40 2X2 PRI EAST LOCAL
DB3INSH402X2PWL	14105334D	DUCT BANK 3IN SH40 2X2 PRI WEST LOCAL
DB3INSH402X2PN	14105334E	DUCT BANK 3IN SH40 2X2 PRI NETWORK
DB3INSH402X2SEA	14105334F	DUCT BANK 3IN SH40 2X2 SEC EAST ARTERIAL
DB3INSH402X2SWA	14105334G	DUCT BANK 3IN SH40 2X2 SEC WEST ARTERIAL
DB3INSH402X2SEL	14105334H	DUCT BANK 3IN SH40 2X2 SEC EAST LOCAL
DB3INSH402X2SWL	14105334I	DUCT BANK 3IN SH40 2X2 SEC WEST LOCAL
DB3INSH402X2SN	14105334J	DUCT BANK 3IN SH40 2X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	4 FT	14105334
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.4 FT	14105334

DB3INSH403X2PEA	14105336A	DUCT BANK 3IN SH40 3X2 PRI EAST ARTERIAL
DB3INSH403X2PWA	14105336B	DUCT BANK 3IN SH40 3X2 PRI WEST ARTERIAL
DB3INSH403X2PEL	14105336C	DUCT BANK 3IN SH40 3X2 PRI EAST LOCAL
DB3INSH403X2PWL	14105336D	DUCT BANK 3IN SH40 3X2 PRI WEST LOCAL
DB3INSH403X2PN	14105336E	DUCT BANK 3IN SH40 3X2 PRI NETWORK
DB3INSH403X2SEA	14105336F	DUCT BANK 3IN SH40 3X2 SEC EAST ARTERIAL
DB3INSH403X2SWA	14105336G	DUCT BANK 3IN SH40 3X2 SEC WEST ARTERIAL
DB3INSH403X2SEL	14105336H	DUCT BANK 3IN SH40 3X2 SEC EAST LOCAL
DB3INSH403X2SWL	14105336I	DUCT BANK 3IN SH40 3X2 SEC WEST LOCAL
DB3INSH403X2SN	14105336J	DUCT BANK 3IN SH40 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	6 FT	14105336
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	.8 FT	14105336



CIVIL

CONDUITS AND DUCT BANKS

DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)

CU-ID	CU-REF	CU-DESCRIPTION
DB4INSH401X2PEA	14105342A	DUCT BANK 4IN SH40 1X2 PRI EAST ARTERIAL
DB4INSH401X2PWA	14105342B	DUCT BANK 4IN SH40 1X2 PRI WEST ARTERIAL
DB4INSH401X2PEL	14105342C	DUCT BANK 4IN SH40 1X2 PRI EAST LOCAL
DB4INSH401X2PWL	14105342D	DUCT BANK 4IN SH40 1X2 PRI WEST LOCAL
DB4INSH401X2PN	14105342E	DUCT BANK 4IN SH40 1X2 PRI NETWORK
DB4INSH401X2SEA	14105342F	DUCT BANK 4IN SH40 1X2 SEC EAST ARTERIAL
DB4INSH401X2SWA	14105342G	DUCT BANK 4IN SH40 1X2 SEC WEST ARTERIAL
DB4INSH401X2SEL	14105342H	DUCT BANK 4IN SH40 1X2 SEC EAST LOCAL
DB4INSH401X2SWL	14105342I	DUCT BANK 4IN SH40 1X2 SEC WEST LOCAL
DB4INSH401X2SN	14105342J	DUCT BANK 4IN SH40 1X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	2	FT	14105342
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14105342

DB4INSH402X2PEA	14105344A	DUCT BANK 4IN SH40 2X2 PRI EAST ARTERIAL
DB4INSH402X2PWA	14105344B	DUCT BANK 4IN SH40 2X2 PRI WEST ARTERIAL
DB4INSH402X2PEL	14105344C	DUCT BANK 4IN SH40 2X2 PRI EAST LOCAL
DB4INSH402X2PWL	14105344D	DUCT BANK 4IN SH40 2X2 PRI WEST LOCAL
DB4INSH402X2PN	14105344E	DUCT BANK 4IN SH40 2X2 PRI NETWORK
DB4INSH402X2SEA	14105344F	DUCT BANK 4IN SH40 2X2 SEC EAST ARTERIAL
DB4INSH402X2SWA	14105344G	DUCT BANK 4IN SH40 2X2 SEC WEST ARTERIAL
DB4INSH402X2SEL	14105344H	DUCT BANK 4IN SH40 2X2 SEC EAST LOCAL
DB4INSH402X2SWL	14105344I	DUCT BANK 4IN SH40 2X2 SEC WEST LOCAL
DB4INSH402X2SN	14105344J	DUCT BANK 4IN SH40 2X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	4	FT	14105344
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14105344
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14105344

DB4INSH403X2PEA	14105346A	DUCT BANK 4IN SH40 3X2 PRI EAST ARTERIAL
DB4INSH403X2PWA	14105346B	DUCT BANK 4IN SH40 3X2 PRI WEST ARTERIAL
DB4INSH403X2PEL	14105346C	DUCT BANK 4IN SH40 3X2 PRI EAST LOCAL
DB4INSH403X2PWL	14105346D	DUCT BANK 4IN SH40 3X2 PRI WEST LOCAL
DB4INSH403X2PN	14105346E	DUCT BANK 4IN SH40 3X2 PRI NETWORK
DB4INSH403X2SEA	14105346F	DUCT BANK 4IN SH40 3X2 SEC EAST ARTERIAL
DB4INSH403X2SWA	14105346G	DUCT BANK 4IN SH40 3X2 SEC WEST ARTERIAL
DB4INSH403X2SEL	14105346H	DUCT BANK 4IN SH40 3X2 SEC EAST LOCAL
DB4INSH403X2SWL	14105346I	DUCT BANK 4IN SH40 3X2 SEC WEST LOCAL
DB4INSH403X2SN	14105346J	DUCT BANK 4IN SH40 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	6	FT	14105346
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.4	FT	14105346
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105346

1410-53	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)	
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CU-ID	CU-REF	CU-DESCRIPTION
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DB5INSH401X2PEA	14105352A	DUCT BANK 5IN SH40 1X2 PRI EAST ARTERIAL
DB5INSH401X2PWA	14105352B	DUCT BANK 5IN SH40 1X2 PRI WEST ARTERIAL
DB5INSH401X2PEL	14105352C	DUCT BANK 5IN SH40 1X2 PRI EAST LOCAL
DB5INSH401X2PWL	14105352D	DUCT BANK 5IN SH40 1X2 PRI WEST LOCAL
DB5INSH401X2PN	14105352E	DUCT BANK 5IN SH40 1X2 PRI NETWORK
DB5INSH401X2SEA	14105352F	DUCT BANK 5IN SH40 1X2 SEC EAST ARTERIAL
DB5INSH401X2SWA	14105352G	DUCT BANK 5IN SH40 1X2 SEC WEST ARTERIAL
DB5INSH401X2SEL	14105352H	DUCT BANK 5IN SH40 1X2 SEC EAST LOCAL
DB5INSH401X2SWL	14105352I	DUCT BANK 5IN SH40 1X2 SEC WEST LOCAL
DB5INSH401X2SN	14105352J	DUCT BANK 5IN SH40 1X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	2	FT	14105352
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14105352
3	0000001423	CONCRETE 2000 PSI	.06	FT	14105352

DB5INSH402X2PEA	14105354A	DUCT BANK 5IN SH40 2X2 PRI EAST ARTERIAL
DB5INSH402X2PWA	14105354B	DUCT BANK 5IN SH40 2X2 PRI WEST ARTERIAL
DB5INSH402X2PEL	14105354C	DUCT BANK 5IN SH40 2X2 PRI EAST LOCAL
DB5INSH402X2PWL	14105354D	DUCT BANK 5IN SH40 2X2 PRI WEST LOCAL
DB5INSH402X2PN	14105354E	DUCT BANK 5IN SH40 2X2 PRI NETWORK
DB5INSH402X2SEA	14105354F	DUCT BANK 5IN SH40 2X2 SEC EAST ARTERIAL
DB5INSH402X2SWA	14105354G	DUCT BANK 5IN SH40 2X2 SEC WEST ARTERIAL
DB5INSH402X2SEL	14105354H	DUCT BANK 5IN SH40 2X2 SEC EAST LOCAL
DB5INSH402X2SWL	14105354I	DUCT BANK 5IN SH40 2X2 SEC WEST LOCAL
DB5INSH402X2SN	14105354J	DUCT BANK 5IN SH40 2X2 SEC NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	4	FT	14105354
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105354
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14105354
4	0000001423	CONCRETE 2000 PSI	.08	FT	14105354

DB5INSH403X2PEA	14105356A	DUCT BANK 5IN SH40 3X2 PRI EAST ARTERIAL
DB5INSH403X2PWA	14105356B	DUCT BANK 5IN SH40 3X2 PRI WEST ARTERIAL
DB5INSH403X2PEL	14105356C	DUCT BANK 5IN SH40 3X2 PRI EAST LOCAL
DB5INSH403X2PWL	14105356D	DUCT BANK 5IN SH40 3X2 PRI WEST LOCAL
DB5INSH403X2PN	14105356E	DUCT BANK 5IN SH40 3X2 PRI NETWORK
DB5INSH403X2SEA	14105356F	DUCT BANK 5IN SH40 3X2 SEC EAST ARTERIAL
DB5INSH403X2SWA	14105356G	DUCT BANK 5IN SH40 3X2 SEC WEST ARTERIAL
DB5INSH403X2SEL	14105356H	DUCT BANK 5IN SH40 3X2 SEC EAST LOCAL
DB5INSH403X2SWL	14105356I	DUCT BANK 5IN SH40 3X2 SEC WEST LOCAL
DB5INSH403X2SN	14105356J	DUCT BANK 5IN SH40 3X2 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	6	FT	14105356
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.4	FT	14105356
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105356
4	0000001423	CONCRETE 2000 PSI	.14	FT	14105356

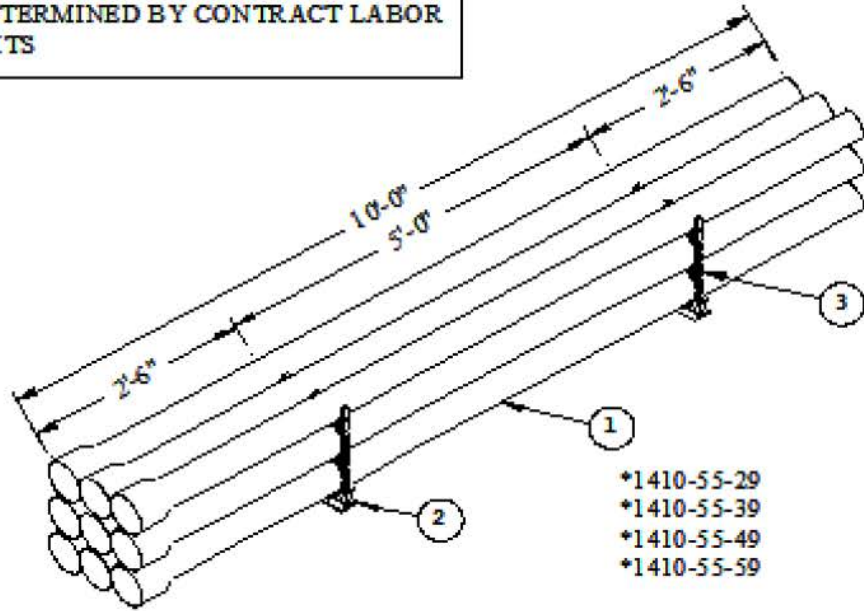
	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (2, 4, OR 6-CONDUITS)	1410-53
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1410-55 DUCT BANKS SCHEDULE 40 CONDUIT (9-CONDUITS)

***THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS**



SEE PAGES 1419-10 TO 1419-20 FOR BACKFILL AND ENCASEMENTS.

USE ENCASED-BURIED (EB) CONDUIT FOR ALL CONCRETE-ENCASED INSTALLATIONS. USE DIRECT-BURIED (DB) CONDUIT FOR INSTALLATIONS WHEN SAND OR IMPORTED/NATIVE MATERIAL SURROUNDS THE CONDUIT.


ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.

ALWAYS ENCASE 5-IN. AND 6-IN. CONDUITS.

USE INTERMEDIATE CONDUIT MODULES 1410-51 ALONG WITH CONFIGURATIONS SHOWN ON PAGES 1410-53 THROUGH 1410-55 TO MAKE UP THE DESIRED NUMBER OF CONDUITS IN A DUCT BANK. TO AVOID HAVING CABLES COMPLETELY SURROUNDED BY OTHER CABLES, TYPICALLY INSTALL DUCT BANKS NO MORE THAN THREE CONDUITS WIDE AND FOUR CONDUITS HIGH.

ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSING IN DB AND CONCRETE-CAPPED INSTALLATIONS.

SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 3/8-IN. SIEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTABLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 4-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAN 6-IN. IN ANY DIMENSION.

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CU

CU-ID CU-REF CU-DESCRIPTION

DB2INSH403X3PEA	14105529A	DUCT BANK 2IN SH40 3X3 PRI EAST ARTERIAL
DB2INSH403X3PWA	14105529B	DUCT BANK 2IN SH40 3X3 PRI WEST ARTERIAL
DB2INSH403X3PEL	14105529C	DUCT BANK 2IN SH40 3X3 PRI EAST LOCAL
DB2INSH403X3PWL	14105529D	DUCT BANK 2IN SH40 3X3 PRI WEST LOCAL
DB2INSH403X3PN	14105529E	DUCT BANK 2IN SH40 3X3 PRI NETWORK
DB2INSH403X3SEA	14105529F	DUCT BANK 2IN SH40 3X3 SEC EAST ARTERIAL
DB2INSH403X3SWA	14105529G	DUCT BANK 2IN SH40 3X3 SEC WEST ARTERIAL
DB2INSH403X3SEL	14105529H	DUCT BANK 2IN SH40 3X3 SEC EAST LOCAL
DB2INSH403X3SWL	14105529I	DUCT BANK 2IN SH40 3X3 SEC WEST LOCAL
DB2INSH403X3SN	14105529J	DUCT BANK 2IN SH40 3X3 SEC NETWORK


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	9 FT	14105529
2	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6 FT	14105529
3	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	1.2 FT	14105529

DB3INSH403X3PEA	14105539A	DUCT BANK 3IN SH40 3X3 PRI EAST ARTERIAL
DB3INSH403X3PWA	14105539B	DUCT BANK 3IN SH40 3X3 PRI WEST ARTERIAL
DB3INSH403X3PEL	14105539C	DUCT BANK 3IN SH40 3X3 PRI EAST LOCAL
DB3INSH403X3PWL	14105539D	DUCT BANK 3IN SH40 3X3 PRI WEST LOCAL
DB3INSH403X3PN	14105539E	DUCT BANK 3IN SH40 3X3 PRI NETWORK
DB3INSH403X3SEA	14105539F	DUCT BANK 3IN SH40 3X3 SEC EAST ARTERIAL
DB3INSH403X3SWA	14105539G	DUCT BANK 3IN SH40 3X3 SEC WEST ARTERIAL
DB3INSH403X3SEL	14105539H	DUCT BANK 3IN SH40 3X3 SEC EAST LOCAL
DB3INSH403X3SWL	14105539I	DUCT BANK 3IN SH40 3X3 SEC WEST LOCAL
DB3INSH403X3SN	14105539J	DUCT BANK 3IN SH40 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	9 FT	14105539
3	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	1.2 FT	14105539


DB4INSH403X3PEA	14105549A	DUCT BANK 4IN SH40 3X3 PRI EAST ARTERIAL
DB4INSH403X3PWA	14105549B	DUCT BANK 4IN SH40 3X3 PRI WEST ARTERIAL
DB4INSH403X3PEL	14105549C	DUCT BANK 4IN SH40 3X3 PRI EAST LOCAL
DB4INSH403X3PWL	14105549D	DUCT BANK 4IN SH40 3X3 PRI WEST LOCAL
DB4INSH403X3PN	14105549E	DUCT BANK 4IN SH40 3X3 PRI NETWORK
DB4INSH403X3SEA	14105549F	DUCT BANK 4IN SH40 3X3 SEC EAST ARTERIAL
DB4INSH403X3SWA	14105549G	DUCT BANK 4IN SH40 3X3 SEC WEST ARTERIAL
DB4INSH403X3SEL	14105549H	DUCT BANK 4IN SH40 3X3 SEC EAST LOCAL
DB4INSH403X3SWL	14105549I	DUCT BANK 4IN SH40 3X3 SEC WEST LOCAL
DB4INSH403X3SN	14105549J	DUCT BANK 4IN SH40 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	9 FT	14105549
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6 FT	14105549
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2 FT	14105549


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CU-ID	CU-REF	CU-DESCRIPTION
DB5INSH403X3PEA	14105559A	DUCT BANK 5IN SH40 3X3 PRI EAST ARTERIAL
DB5INSH403X3PWA	14105559B	DUCT BANK 5IN SH40 3X3 PRI WEST ARTERIAL
DB5INSH403X3PEL	14105559C	DUCT BANK 5IN SH40 3X3 PRI EAST LOCAL
DB5INSH403X3PWL	14105559D	DUCT BANK 5IN SH40 3X3 PRI WEST LOCAL
DB5INSH403X3PN	14105559E	DUCT BANK 5IN SH40 3X3 PRI NETWORK
DB5INSH403X3SEA	14105559F	DUCT BANK 5IN SH40 3X3 SEC EAST ARTERIAL
DB5INSH403X3SWA	14105559G	DUCT BANK 5IN SH40 3X3 SEC WEST ARTERIAL
DB5INSH403X3SEL	14105559H	DUCT BANK 5IN SH40 3X3 SEC EAST LOCAL
DB5INSH403X3SWL	14105559I	DUCT BANK 5IN SH40 3X3 SEC WEST LOCAL
DB5INSH403X3SN	14105559J	DUCT BANK 5IN SH40 3X3 SEC NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	9	FT	14105559
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105559
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14105559
4	0000001423	CONCRETE 2000 PSI	.23	FT	14105559

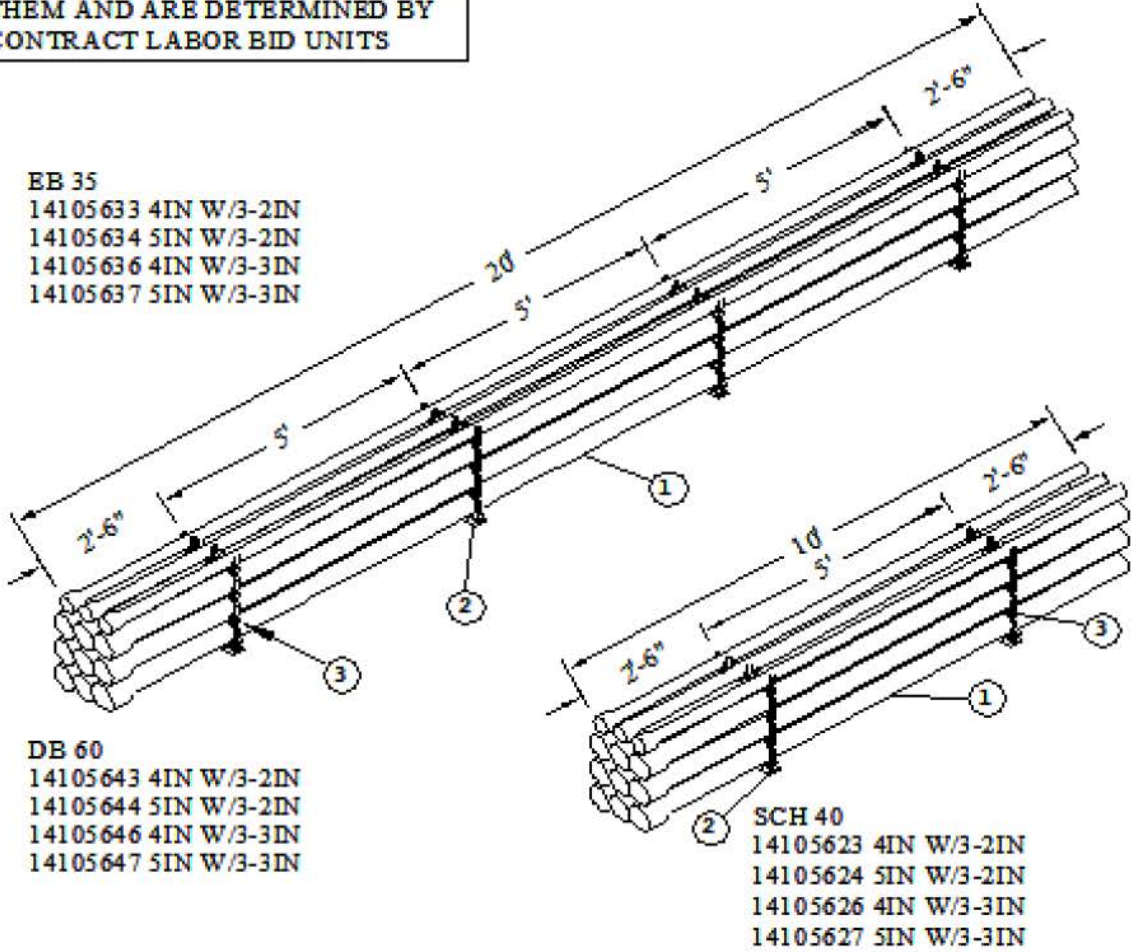
	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS SCHEDULE 40 CONDUIT (9-CONDUITS)	1410-55
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1410-56	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (12-CONDUITS)	
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1410-56 DUCT BANKS PVC CONDUIT (12-CONDUITS)

THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS



NOTES:

1. SEE PAGE 1419-20 FOR NETWORK TRENCH DETAILS.
2. ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.
3. ALWAYS ENCASE ALL CONDUITS WITH 2000 PSI CONCRETE.
4. ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSINGS.

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	CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (12-CONDUITS)	Sheet 2 of 8
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CU


CU-ID	CU-REF	CU-DESCRIPTION
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DB4INSH403X3W3-2IN12	14105623	DUCTBNK 4IN SH40 3X3 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105623
2	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	9	FT	14105623
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105623
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105623
5	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	3	FT	14105623
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105623

DB4INSH403X3W3-3IN12	14105626	DUCTBNK 4IN SH40 3X3 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105626
2	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	9	FT	14105626
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105626
5	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	3	FT	14105626
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105626

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Sheet 3 of 8	CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (12-CONDUITS)	
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CU-ID CU-REF CU-DESCRIPTION

DB4INEB353X3W3-2IN12 14105633 DUCTBNK 4IN EB35 3X3 W/3-2IN 12 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14105633
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105633
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105633
4	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105633
5	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105633
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105633

DB4INEB353X3W3-3IN12 14105636 DUCTBNK 4IN EB35 3X3 W/3-3IN 12 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14105636
2	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	3	FT	14105636
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105636
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105636
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105636

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CU-ID	CU-REF	CU-DESCRIPTION
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DB4INDB603X3W3-2IN15	14105643	DUCTBNK 4IN DB60 3X3 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14105643
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105643
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105643
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105643
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105643
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105643

DB4INDB603X3W3-3IN15	14105646	DUCTBNK 4IN DB60 3X3 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14105646
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105646
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105646
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105646
6	0000001423	CONCRETE 2000 PSI	.18	FT	14105646

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CU-ID	CU-REF	CU-DESCRIPTION
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DB5INSH403X3W3-2IN12	14105624	DUCTBNK 5IN SH40 3X3 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	000005228	CONDUIT PVC SCHED 40 5 IN	9	FT	14105624
2	000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105624
3	000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105624
4	000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.06	FT	14105624
5	000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14105624
6	000001423	CONCRETE 2000 PSI	.18	FT	14105624

DB5INSH403X3W3-3IN12	14105627	DUCTBNK 5IN SH40 3X3 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	000005228	CONDUIT PVC SCHED 40 5 IN	9	FT	14105627
2	000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	3	FT	14105627
3	000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105627
5	000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14105627
6	000001423	CONCRETE 2000 PSI	.26	FT	14105627

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CU-ID	CU-REF	CU-DESCRIPTION
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DB5INEB353X3W3-2IN12	14105634	DUCTBNK 5IN EB35 3X3 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY	FT	CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14105634
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105634
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105634
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105634
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14105634
6	0000001423	CONCRETE 2000 PSI	.26	FT	14105634

DB5INEB353X3W3-3IN12	14105637	DUCTBNK 5IN EB35 3X3 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY	FT	CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	9	FT	14105637
2	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	3	FT	14105637
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105637
4	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105637
5	0000001423	CONCRETE 2000 PSI	.26	FT	14105637

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Sheet 7 of 8	CONDUITS AND DUCT BANKS	
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CU-ID	CU-REF	CU-DESCRIPTION
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DB5INDB603X3W3-2IN15	14105644	DUCTBNK 5IN DB60 3X3 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14105644
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105644
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.6	FT	14105644
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105644
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.2	FT	14105644
6	0000001423	CONCRETE 2000 PSI	.26	FT	14105644

DB5INDB603X3W3-3IN15	14105647	DUCTBNK 5IN DB60 3X3 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	9	FT	14105647
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105647
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.6	FT	14105647
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.2	FT	14105647
6	0000001423	CONCRETE 2000 PSI	.26	FT	14105647

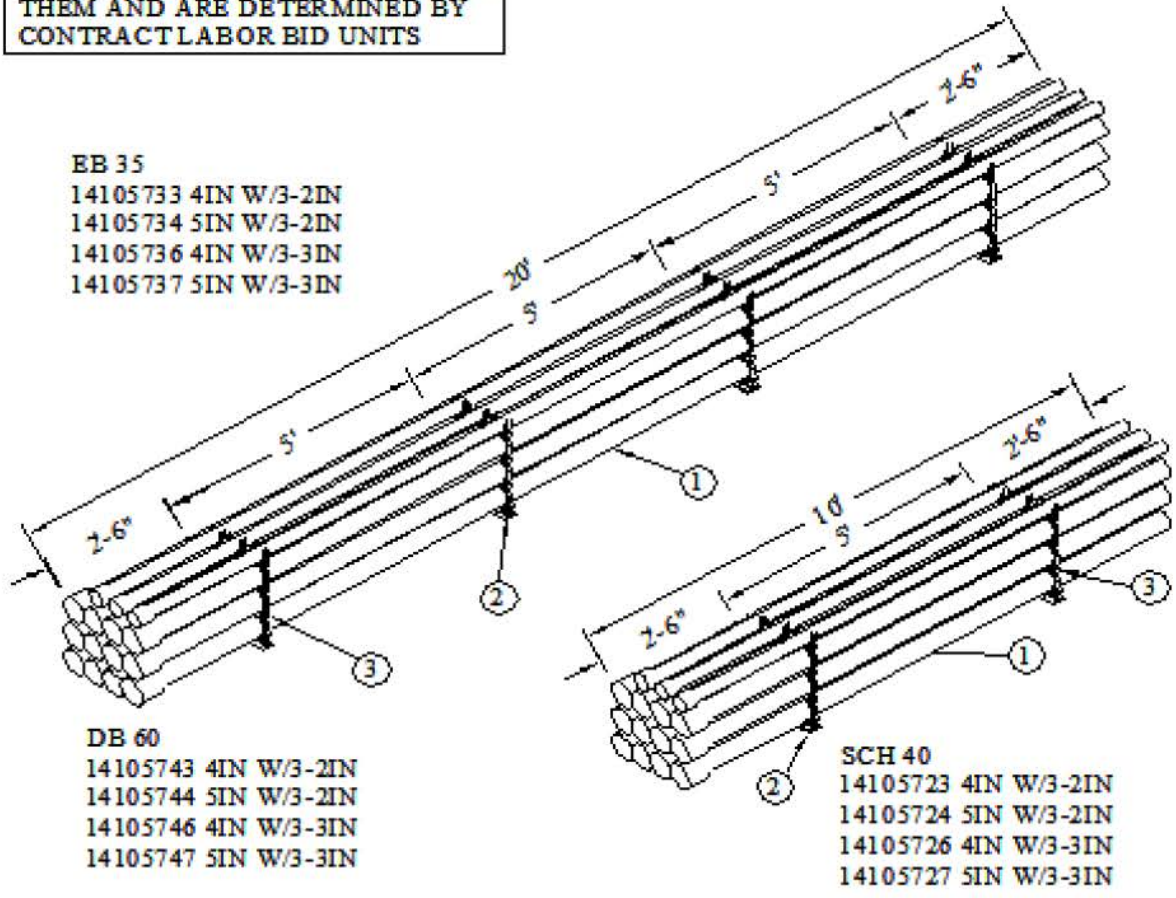
	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (12-CONDUITS)	1410-56
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1410-57 DUCT BANKS PVC CONDUIT (15-CONDUITS)

THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS



- NOTES:**
1. SEE PAGE 1419-20 FOR NETWORK TRENCH DETAILS.
 2. ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.
 3. ALWAYS ENCASE ALL CONDUITS WITH 2000 PSI CONCRETE.
 4. ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSINGS.

	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (15-CONDUITS)	1410-57
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CU


CU-ID	CU-REF	CU-DESCRIPTION
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DB4INSH403X4W3-2IN15	14105723	DUCTBNK 4IN SH40 3X4 W/3-2IN 15 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	12	FT	14105723
2	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	3	FT	14105723
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105723
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105723
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105723
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105723

DB4INSH403X4W3-3IN15	14105726	DUCTBNK 4IN SH40 3X4 W/3-3IN 15 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	12	FT	14105726
2	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	3	FT	14105726
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105726
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105726
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105726

1410-57	CIVIL	
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CU-ID CU-REF CU-DESCRIPTION

DB4INEB353X4W3-2IN15 14105733 DUCTBNK 4IN EB35 3X4 W/3-2IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105733
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105733
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105733
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105733
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105733
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105733

DB4INEB353X4W3-3IN15 14105736 DUCTBNK 4IN EB35 3X4 W/3-3IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105736
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105736
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105736
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105736
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105736

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	DUCT BANKS PVC CONDUIT (15-CONDUITS)	11/01
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CU-ID	CU-REF	CU-DESCRIPTION
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DB4INDB603X4W3-2IN15	14105743	DUCTBNK 4IN DB60 3X4 W/3-2IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105743
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105743
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105743
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105743
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105743
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105743

DB4INDB603X4W3-3IN15	14105746	DUCTBNK 4IN DB60 3X4 W/3-3IN 12 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105746
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105746
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105746
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105746
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105746

1410-57	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (15-CONDUITS)	 AUSTIN ENERGY
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CU-ID CU-REF CU-DESCRIPTION

DB5INSH403X4W3-2IN15 14105724 DUCTBNK 5IN SH40 3X4 W/3-2IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	12	FT	14105724
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105724
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105724
4	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	3	FT	14105724
5	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105724
6	0000001423	CONCRETE 2000 PSI	5.82	FT	14105724

DB5INSH403X4W3-3IN15 14105727 DUCTBNK 5IN SH40 3X4 W/3-3IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005228	CONDUIT PVC SCHED 40 5 IN	12	FT	14105727
2	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105727
3	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105727
4	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	3	FT	14105727
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105727

	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (15-CONDUITS)	1410-57
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CU-ID	CU-REF	CU-DESCRIPTION
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DB5INEB353X4W3-2IN15 14105734 DUCTBNK 5IN EB35 3X4 W/3-2IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105734
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105734
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105734
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105734
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105734
6	0000001423	CONCRETE 2000 PSI	5.82	FT	14105734

DB5INEB353X4W3-3IN15 14105737 DUCTBNK 5IN EB35 3X4 W/3-3IN 15 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105737
2	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	3	FT	14105737
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105737
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105737
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105737

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DB5INDB603X4W3-2IN15 14105744 DUCTBNK 5IN DB60 3X4 W/3-2IN 12 PRI NET


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105744
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105744
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105744
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105744
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105744
6	0000001423	CONCRETE 2000 PSI	5.82	FT	14105744

DB5INDB603X4W3-3IN15 14105747 DUCTBNK 5IN DB60 3X4 W/3-3IN 12 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105747
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105747
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105747
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105747
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105747

	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (15-CONDUITS)	1410-57
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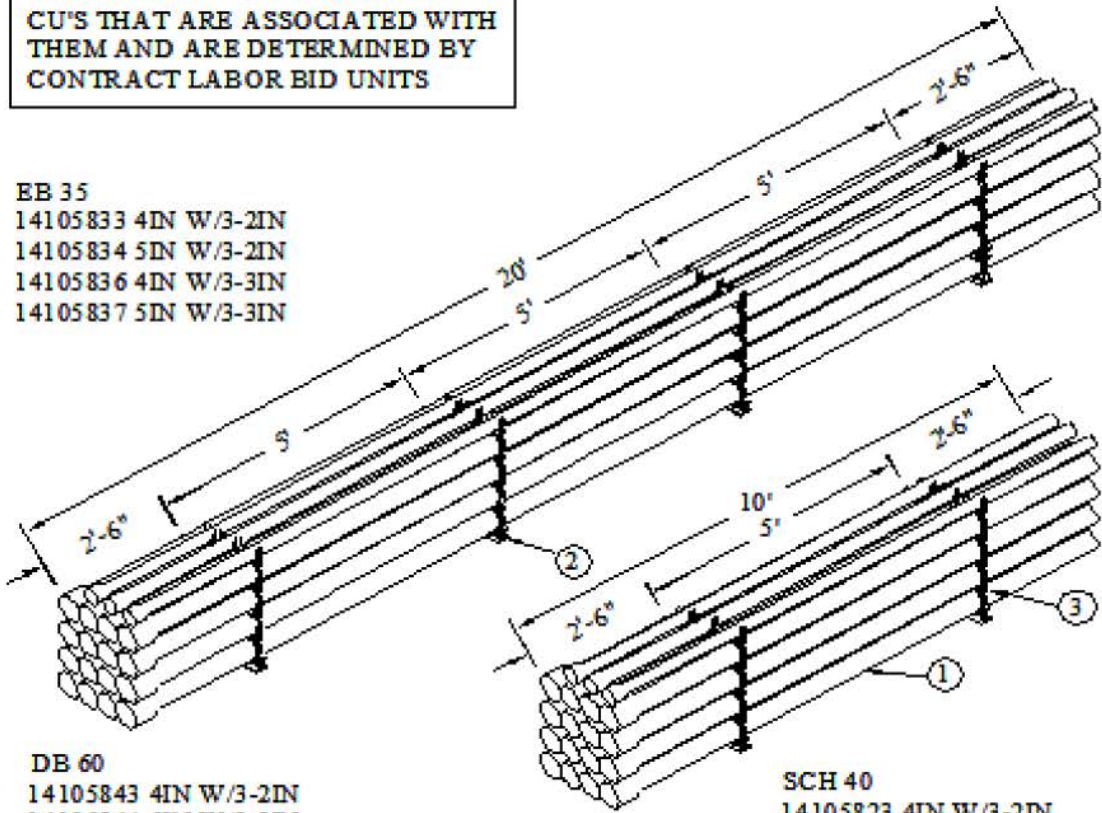
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1410-58	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (19-CONDUITS)	
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1410-58 DUCT BANKS PVC CONDUIT (19-CONDUITS)

THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS

EB 35
 14105833 4IN W/3-2IN
 14105834 5IN W/3-2IN
 14105836 4IN W/3-3IN
 14105837 5IN W/3-3IN




DB 60
 14105843 4IN W/3-2IN
 14105844 5IN W/3-2IN
 14105846 4IN W/3-3IN
 14105847 5IN W/3-3IN

SCH 40
 14105823 4IN W/3-2IN
 14105824 5IN W/3-2IN
 14105826 4IN W/3-3IN
 14105827 5IN W/3-3IN

NOTES:

1. SEE PAGE 1419-20 FOR NETWORK TRENCH DETAILS.
2. ALWAYS USE SPACERS WHEN CONDUIT IS INSTALLED IN A STACKED CONFIGURATION.
3. ALWAYS ENCASE ALL CONDUITS WITH 2000 PSI CONCRETE.
4. ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSINGS.

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CU

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CU-DESCRIPTION

DB4INSH404X4W3-2IN19

14105823

DUCTBNK 4IN SH40 4X4 W/3-2IN 19 PRI NET


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	16 FT	14105823
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8 FT	14105823
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	2.4 FT	14105823
4	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	3 FT	14105823
5	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6 FT	14105823
6	0000001423	CONCRETE 2000 PSI	4.81 FT	14105823

DB4INSH404X4W3-3IN19

14105826

DUCTBNK 4IN SH40 4X4 W/3-3IN 19 PRI NET

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	16 FT	14105826
2	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8 FT	14105826
3	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	2.4 FT	14105826
4	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	3 FT	14105826
6	0000001423	CONCRETE 2000 PSI	4.81 FT	14105826

1410-58	CIVIL	CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (19-CONDUITS)	
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CU-ID	CU-REF	CU-DESCRIPTION
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DB4INEB354X4W3-2IN19	14105833	DUCTBNK 4IN EB35 4X4 W/3-2IN 19 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105833
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105833
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105833
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105833
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105833
6	0000001423	CONCRETE 2000 PSI	4.81	FT	14105833

DB4INEB354X4W3-3IN19	14105836	DUCTBNK 4IN EB35 4X4 W/3-3IN 19 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105836
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105836
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105836
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105836
6	0000001423	CONCRETE 2000 PSI	4.81	FT	14105836

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CU-ID	CU-REF	CU-DESCRIPTION
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DB4INDB604X4W3-2IN19	14105843	DUCTBNK 4IN DB60 4X4 W/3-2IN 19 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105843
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105843
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105843
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105843
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105843
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105843

DB4INDB604X4W3-3IN19	14105846	DUCTBNK 4IN DB60 4X4 W/3-3IN 19 PRI NET
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105846
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105846
3	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	.8	FT	14105846
5	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1.6	FT	14105846
6	0000001423	CONCRETE 2000 PSI	3.88	FT	14105846

1410-58	CIVIL CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (19-CONDUITS)	
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CU-ID CU-REF CU-DESCRIPTION

DB5INSH404X4W3-2IN19 14105824 DUCTBNK 5IN SH40 4X4 W/3-2IN 19 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	000005228	CONDUIT PVC SCHED 40 5 IN	16	FT	14105824
2	000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105824
3	000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	2.4	FT	14105824
4	000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	3	FT	14105824
5	000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105824
6	000001423	CONCRETE 2000 PSI	6.93	FT	14105824

DB5INSH404X4W3-3IN19 14105827 DUCTBNK 5IN SH40 4X4 W/3-3IN 19 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	000005228	CONDUIT PVC SCHED 40 5 IN	16	FT	14105827
2	000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105827
3	000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	2.4	FT	14105827
4	000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	3	FT	14105827
6	000001423	CONCRETE 2000 PSI	6.93	FT	14105827



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CU-DESCRIPTION

DB5INEB354X4W3-2IN19

14105834

DUCTBNK 5IN EB35 4X4 W/3-2IN 19 PRI NET


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105834
2	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	3	FT	14105834
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105834
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105834
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105834
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105834

DB5INEB354X4W3-3IN19

14105837

DUCTBNK 5IN EB35 4X4 W/3-3IN 19 PRI NET

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	12	FT	14105837
2	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	3	FT	14105837
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105837
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105837
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105837

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CU-ID CU-REF CU-DESCRIPTION

DB5INDB604X4W3-2IN19 14105844 DUCTBNK 5IN DB60 4X4 W/3-2IN 19 PRI NET


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105844
2	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	3	FT	14105844
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105844
4	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	.6	FT	14105844
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105844
6	0000001423	CONCRETE 2000 PSI	5.82	FT	14105844

DB5INDB604X4W3-3IN19 14105847 DUCTBNK 5IN DB60 4X4 W/3-3IN 19 PRI NET

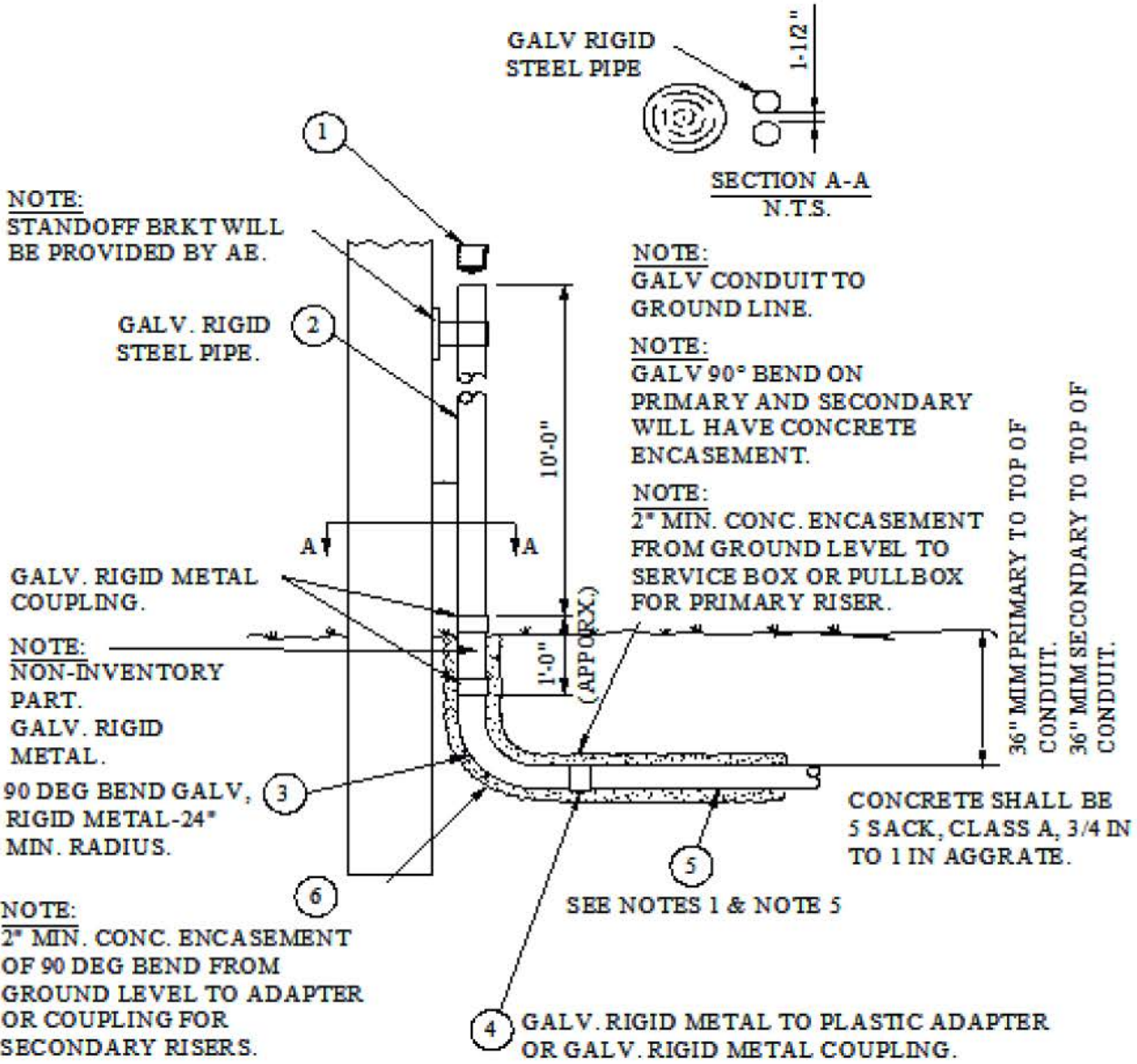
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000018049	CONDUIT PVC 5 IN TY DB-60 20 FT W/ONE BELL END	12	FT	14105847
2	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	3	FT	14105847
3	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	.8	FT	14105847
5	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1.6	FT	14105847
6	0000001423	CONCRETE 2000 PSI	6.93	FT	14105847

	<p style="text-align: center;">CIVIL</p> <p style="text-align: center;">CONDUITS AND DUCT BANKS DUCT BANKS PVC CONDUIT (19-CONDUITS)</p>	1410-58
		Sheet 8 of 8
Rev. Date		11/01

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1410-60	CIVIL CONDUITS AND DUCT BANKS RISER INSTALLATION	
Sheet 1 of 4		
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1410-60 RISER INSTALLATION



1410-60-01

- NOTE:**
1. TYPE, SIZE & NUMBER OF CONDUITS, SIZE TO SERVICE BOX RO PULLBOX, & INSTALLATION SPECIFICATIONS SHALL BE DETERMINED BY AUSTIN ENERGY DESIGN.
 2. CUSTOMER SHALL INSURE THAT THE RISER CONDUIT IS PLUMB WITH POLE AND HAS THE PROPER STAND OFF OF 4".
 3. PRIMARY RISER-TOP OF CONDUIT SHALL BE A MIN. OF 36" BELOW GRADE. SECONDARY RISER-TOP OF CONDUIT SHALL BE A MIN. OF 36" BELOW GRADE.
 4. SERVICE BOX/PULLBOX AND RISER CONDUIT SHALL BE INSPECTED BY AUSTIN ENERGY, CML INSPECTION SECTION OR AUSTIN ENERGY WORK MANAGEMENT.
 5. CONDUIT IN WHICH THE CUSTOMER/ELECTRICIAN INSTALLS THE WIRE SHALL BE INSPECTED BY THE DEVELOPMENT REVIEW & INSPECTION DEPARTMENT, ELECTRIC INSPECTION SECTION. (PVC CONDUIT SHALL BE SCHEDULE 40.)
 6. FIRST PULLBOX OR MANHOLE TO BE MINIMUM OF 5' FROM POLE.



CIVIL
CONDUITS AND DUCT BANKS
RISER INSTALLATION

1410-60
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CU

CU-ID

CU-REF

CU-DESCRIPTION

COND TMRIS SGL 2 IN E	14106020A	COND TERM RISER SGL 2 IN EAST
COND TMRIS SGL 2 IN W	14106020B	COND TERM RISER SGL 2 IN WEST
COND TMRIS SGL 2 IN N	14106020C	COND TERM RISER SGL 2 IN NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	000000556	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 2 IN	1	EA	14106020
2	0000005475	CONDUIT GALV IRON 2 IN 10 FT LENGTH EL-196	10	EA	14106020
3	0000006780	COUPLING PVC CONDUIT FEMALE 2 IN	1	EA	14106020
4	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	10	EA	14106020
5	0000005268	PLUG PLASTIC CONDUIT 2 IN	1	EA	14106020
6	0000001423	CONCRETE 2000 PSI	.75	EA	14106020

COND TMRIS PAR 2 IN E	14106021A	COND TERM RISER PARALLEL 2 IN EAST
COND TMRIS PAR 2 IN W	14106021B	COND TERM RISER PARALLEL 2 IN WEST
COND TMRIS PAR 2 IN N	14106021C	COND TERM RISER PARALLEL 2 IN NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	000000556	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 2 IN	2	EA	14106021
2	0000005475	CONDUIT GALV IRON 2 IN 10 FT LENGTH EL-196	20	EA	14106021
3	0000006780	COUPLING PVC CONDUIT FEMALE 2 IN	2	EA	14106021
4	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	20	EA	14106021
5	0000005268	PLUG PLASTIC CONDUIT 2 IN	2	EA	14106021
6	0000001423	CONCRETE 2000 PSI	1.5	EA	14106021

COND TMRIS SGL 3 IN E	14106022A	COND TERM RISER SGL 3 IN EAST
COND TMRIS SGL 3 IN W	14106022B	COND TERM RISER SGL 3 IN WEST
COND TMRIS SGL 3 IN N	14106022C	COND TERM RISER SGL 3 IN NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005353	ELBOW CONDUIT RIGID GALV 90 DEG 36 IN RADIUS 3 IN	1	EA	14106022
2	0000005476	CONDUIT GALV IRON 3 IN 10 FT LENGTH EL196	10	EA	14106022
3	0000006791	COUPLING PVC CONDUIT 3 IN SCH 40	1	EA	14106022
4	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	10	EA	14106022
5	0000005269	PLUG PLASTIC CONDUIT 3 IN WITH PULLING EYE	1	EA	14106022
6	0000001423	CONCRETE 2000 PSI	.75	EA	14106022

COND TMRIS PAR 3 IN E	14106023A	COND TERM RISER PARALLEL 3 IN EAST
COND TMRIS PAR 3 IN W	14106023B	COND TERM RISER PARALLEL 3 IN WEST
COND TMRIS PAR 3 IN N	14106023C	COND TERM RISER PARALLEL 3 IN NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005353	ELBOW CONDUIT RIGID GALV 90 DEG 36 IN RADIUS 3 IN	2	EA	14106023
2	0000005476	CONDUIT GALV IRON 3 IN 10 FT LENGTH EL196	20	EA	14106023
3	0000006791	COUPLING PVC CONDUIT 3 IN SCH 40	2	EA	14106023
4	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	20	EA	14106023
5	0000005269	PLUG PLASTIC CONDUIT 3 IN WITH PULLING EYE	2	EA	14106023
6	0000001423	CONCRETE 2000 PSI	1.5	EA	14106023

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CU-ID	CU-REF	CU-DESCRIPTION
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CONDTMRISSGL4INE	14106024A	COND TERM RISER SGL 4IN EAST
CONDTMRISSGL4INW	14106024B	COND TERM RISER SGL 4IN WEST
CONDTMRISSGL4INN	14106024C	COND TERM RISER SGL 4IN NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005355	ELBOW CONDUIT RIGID GALV 90 DEG 36 IN RADIUS FOR 4 IN	1	EA	14106024
2	0000005477	CONDUIT GALV IRON 4 IN 10 FT LENGTH EL196	10	EA	14106024
3	0000006792	COUPLING PVC CONDUIT 4 IN SCH 40	1	EA	14106024
4	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	10	EA	14106024
5	0000005270	PLUG PLASTIC CONDUIT 4 IN WITH PULLING EYE	1	EA	14106024
6	0000001423	CONCRETE 2000 PSI	.75	EA	14106024

CONDTMRISPAR4INE	14106025A	COND TERM RISER PARALLEL 4IN EAST
CONDTMRISPAR4INW	14106025B	COND TERM RISER PARALLEL 4IN WEST
CONDTMRISPAR4INN	14106025C	COND TERM RISER PARALLEL 4IN NETWORK


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005355	ELBOW CONDUIT RIGID GALV 90 DEG 36 IN RADIUS FOR 4 IN	2	EA	14106025
2	0000005477	CONDUIT GALV IRON 4 IN 10 FT LENGTH EL196	20	EA	14106025
3	0000006792	COUPLING PVC CONDUIT 4 IN SCH 40	2	EA	14106025
4	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	40	EA	14106025
5	0000005270	PLUG PLASTIC CONDUIT 4 IN WITH PULLING EYE	2	EA	14106025
6	0000001423	CONCRETE 2000 PSI	1.5	EA	14106025

CONDTMRISPAR5INE	14106026A	COND TERM RISER PARALLEL 5IN EAST
CONDTMRISPAR5INW	14106026B	COND TERM RISER PARALLEL 5IN WEST
CONDTMRISPAR5INN	14106026C	COND TERM RISER PARALLEL 5IN NETWORK

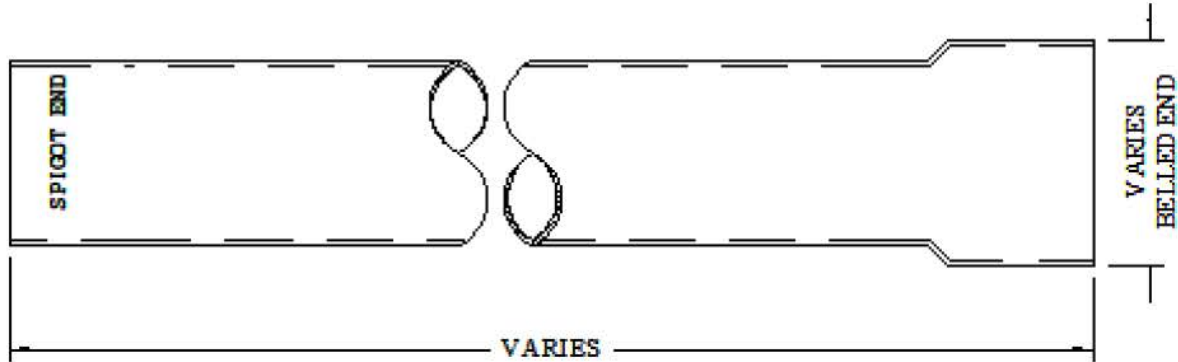
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000000559	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 5 IN	2	EA	14106026
2	0000005478	CONDUIT GALV IRON 5 IN 10 FT LENGTH EL196	20	EA	14106026
3	0000006793	COUPLING PVC CONDUIT 5 IN	2	EA	14106026
4	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	40	EA	14106026
5	0000005271	PLUG PLASTIC CONDUIT 5 IN WITH PULLING EYE	2	EA	14106026
6	0000001423	CONCRETE 2000 PSI	1.5	EA	14106026

	CIVIL CONDUITS AND DUCT BANKS RISER INSTALLATION	1410-60
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1418-00	CIVIL CONDUITS AND DUCT BANKS CONDUIT PVC AND GALVANIZED STEEL	
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11/01		Rev. Date

1418-00 CONDUIT PVC AND GALVANIZED STEEL




1418-00-12 EB 2"	1418-00-32 SCH 40 PVC 2"	1418-00-71 GALV IRON 1-IN 10-FT
1418-00-13 EB 3"	1418-00-33 SCH 40 PVC 3"	1418-00-72 GALV IRON 2-IN 10-FT
1418-00-14 EB 4"	1418-00-34 SCH 40 PVC 4"	1418-00-73 GALV IRON 3-IN 10-FT
1418-00-15 EB 5"	1418-00-62 SCH 80 PVC 2"	1418-00-74 GALV IRON 4-IN 10-FT
1418-00-16 EB 6"	1418-00-63 SCH 80 PVC 3"	1418-00-75 GALV IRON 5-IN 10-FT
1418-00-22 DB 2"	1418-00-64 SCH 80 PVC 4"	1418-00-76 GALV IRON 6-IN 10-FT
1418-00-23 DB 3"	1418-00-65 SCH 80 PVC 5"	
1418-00-24 DB 4"		

- * DIRECT-BURIED (DB) CONDUITS MAY BE USED IN RESIDENTIAL URD INSTALLATIONS FOR PRIMARY, SECONDARY AND SERVICE CONDUITS. THEY MAY ALSO BE USED FOR COMMERCIAL INSTALLATIONS WITH A 2-IN. RED CONCRETE CAP.
- * ALWAYS USE TYPE PVC SCHEDULE 40 FOR ALL STREET CROSSINGS IN DB AND CONCRETE-CAPPED INSTALLATIONS.
- * USE ENCASED-BURIED (EB) CONDUIT FOR INSTALLATIONS REQUIRING CONCRETE ENCASEMENTS.
- * ALWAYS CONCRETE-ENCASE 5-IN. AND 6-IN. CONDUITS.
- * USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS AND TERMINATIONS.
- * MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.
- * DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.
- * PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.
- * SURROUND DB CONDUIT WITH SAND OR BACKFILL MATERIAL CAPABLE OF PASSING THROUGH A 1/2-IN. SLEEVE. GRAVEL CONTENT IN BACKFILL MIX SHALL NOT BE MORE THAN 50% IN VOLUME. TO AVOID DAMAGE TO DB ELECTRICAL CONDUIT, GRADE BOTTOM OF TRENCH SMOOTH. TOP DB CONDUIT WITH 6-IN. (AFTER COMPACTION) OF THE SAME BASE MATERIAL. ACCEPTIBLE BASE MATERIAL FOR DB INSTALLATIONS IS SAND, SANDY LOAM, NATIVE MATERIAL, OR A COMBINATION THEREOF. THE BACKFILL MATERIAL ABOVE THE 6-IN. LAYER SPECIFIED ABOVE SHALL BE FREE OF ROCKS LARGER THAT 6-IN. IN ANY DIMENSION.
- * SEE PAGE 1419-20 FOR CONCRETE BACKFILL MIXTURES.

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	CONDUITS AND DUCT BANKS	Sheet 2 of 4
	CONDUIT PVC AND GALVANIZED STEEL	11/01

CU

CU-ID	CU-REF	CU-DESCRIPTION				
CNDTEB35PVC1IN201BE	14180012	COND 2" PVC TP EB-35, 20' SEC WBE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001108	CONDUIT PVC 2 IN TY EB-35 20 FT W/ONE BELL END	1	EA	14180012	
CNDTEB35PVC3IN20BE	14180013	COND 3" PVC TP EB-35, 20' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001109	CONDUIT 3" PVC TY EB-35 20 FT W/ONE BELL END	1	EA	14180013	
CNDTEB35PVC4IN20BE	14180014	COND 4" PVC TP EB-35, 20' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001110	CONDUIT PVC 4 IN TY EB-35 20 FT W/ONE BELL END	1	EA	14180014	
CNDTEB35PVC5IN20BE	14180015	COND 5" PVC TP EB-35, 20' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005255	CONDUIT PVC 5 IN TY EB-35 20 FT W/ONE BELL END	1	EA	14180015	
CNDTDB60PVC2IN201BE	14180022	COND 2" PVC TP DB-60, 20' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000021992	CONDUIT PVC SCHED 40 2 IN 20 FT W/ONE BELL END	1	EA	14180022	
CNDTDB60PVC3IN20BE	14180023	COND 3" PVC TP DB-60, 20' SECT W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005253	CONDUIT PVC 3 IN TY DB-60 20 FT W/ONE BELL END	1	EA	14180023	
CNDTDB60PVC4IN20BE	14180024	COND 4" PVC TP DB-60, 20'SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005254	CONDUIT PVC 4 IN TY DB-60 20 FT W/ONE BELL END	1	EA	14180024	
CNDT40PVC2IN101BE	14180032	COND 2" PVC SCH 40, 10' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005226	CONDUIT PVC SCHED 40 2 IN 10 FT W/ONE BELL END	1	EA	14180032	
CNDT40PVC3IN101BE	14180033	COND 3" PVC SCH 40, 10' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005227	CONDUIT PVC SCHED 40 3 IN 10 FT W/ONE BELL END	1	EA	14180033	
CNDT40PVC4IN101BE	14180034	COND 4" PVC SCH 40, 10' SEC W/BE				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005225	CONDUIT PVC SCHED 40 4 IN 10 FT W/ONE BELL END	1	EA	14180034	

1418-00	CIVIL	
Sheet 3 of 4	CONDUITS AND DUCT BANKS	
11/01	CONDUIT PVC AND GALVANIZED STEEL	

CU-ID CU-REF CU-DESCRIPTION

CNDT80PVC2IN101BE 14180062 COND 2 PVC SCH 80, 10' SEC W/BE

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001113	CONDUIT PVC 2 IN SCHED 80 10 FT W/ONE BELL END	10 FT	14180062

CNDT80PVC3IN101BE 14180063 COND 3 PVC SCH 80, 10' SEC W/BE

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001114	CONDUIT PVC 3 IN SCHED 80 10 FT W/ONE BELL END	10 FT	14180063

CNDT80PVC4IN101BE 14180064 COND 4" PVC SCH 80, 10' SEC W/BE

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001115	CONDUIT PVC 4 IN SCHED 80 10 FT W/ONE BELL END	10 FT	14180064

CNDT80PVC5IN101BE 14180065 COND 5" PVC SCH 80, 10' SEC W/BE

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001116	CONDUIT PVC 5 IN SCHED 80 10 FT W/ONE BELL END	10 EA	14180065

CNDTGALVIRON1IN10 14180071 COND GALV IRON 1" 10' LENGTH

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005472	CONDUIT GALV IRON 1 IN 10 FT LENGTH EL196	1 FT	14180071

CNDTGALVIRON2IN10 14180072 COND GALV IRON 2", 10' LENGTH

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005475	CONDUIT GALV IRON 2 IN 10 FT LENGTH EL-196	1 EA	14180072

CNDTGALVIRON3IN10 14180073 COND GALV IRON 3", 10' LENGTH


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005476	CONDUIT GALV IRON 3 IN 10 FT LENGTH EL196	1 FT	14180073

CNDTGALVIRON4IN10 14180074 COND GALV IRON 4", 10' LENGTH

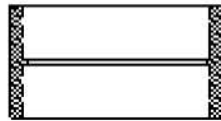
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005477	CONDUIT GALV IRON 4 IN 10 FT LENGTH EL196	1 FT	14180074

CNDTGALVIRON5IN10 14180075 COND GALV IRON 5", 10' LENGTH

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000005478	CONDUIT GALV IRON 5 IN 10 FT LENGTH EL196	1 EA	14180075

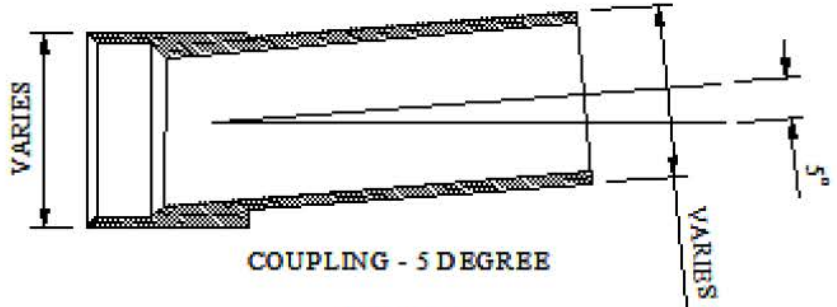
	CIVIL CONDUITS AND DUCT BANKS CONDUIT COUPLINGS AND REDUCERS SCHEDULE 40	1418-02 Sheet 1 of 4
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1418-02 CONDUIT COUPLINGS AND REDUCERS SCHEDULE 40



COUPLING

- 1418-02-42
- 1418-02-43
- 1418-02-44
- 1418-02-45



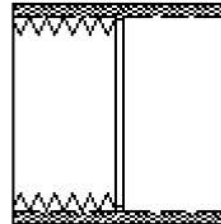
COUPLING - 5 DEGREE

- 1418-02-52
- 1418-02-53
- 1418-02-54
- 1418-02-55



REDUCER

- 1418-02-62
- 1418-02-63
- 1418-02-64
- 1418-02-65




COUPLING - PVC TO RIGID

- 1418-02-72
- 1418-02-73
- 1418-02-74
- 1418-02-75

MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

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CU

CU-ID CU-REF CU-DESCRIPTION

COU2IN40PVC 14180242 COUPLING 2" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006790	COUPLING PVC CONDUIT 2 IN SCH 40	1 EA	14180242

COU3IN40PVC 14180243 COUPLING 3" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006791	COUPLING PVC CONDUIT 3 IN SCH 40	1 EA	14180243

COU4IN40PVC 14180244 COUPLING 4" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006792	COUPLING PVC CONDUIT 4 IN SCH 40	1 EA	14180244

COU5IN40PVC 14180245 COUPLING 5" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006793	COUPLING PVC CONDUIT 5 IN	1 EA	14180245

COU5DEG2INPVC40 14180252 COUPLING 5-DEG ANGLE 2" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001254	COUPLING CONDUIT PVC SCHED 40 5 DEG 2 IN	1 EA	14180252

COU5DEG3INPVC40 14180253 COUPLING 5-DEG ANGLE 3" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001255	COUPLING CONDUIT PVC SCHED 40 5 DEG 3 IN	1 EA	14180253

COU5DEG4INPVC40 14180254 COUPLING 5-DEG ANGLE 4" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001256	COUPLING CONDUIT PVC SCHED 40 5 DEG 4 IN	1 EA	14180254


COU5DEG5INPVC40 14180255 COUPLING 5-DEG ANGLE 5" PVC SCH 40

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001257	COUPLING CONDUIT PVC SCHED 40 5 DEG 5 IN	1 EA	14180255

CNDTPVC40RED3IN-2IN 14180262 REDUCER 3" TO 2" PVC SCH 40


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001337	REDUCER CONDUIT PVC SCHED 40 3 IN TO 2 IN	1 EA	14180262

ID	PART NUM	PART DESC	QTY	CU-REF
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	CIVIL	1418-02
	CONDUIITS AND DUCT BANKS	Sheet 3 of 4
	CONDUIT COUPLINGS AND REDUCERS SCHEDULE 40	11/01
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CU-ID	CU-REF	CU-DESCRIPTION
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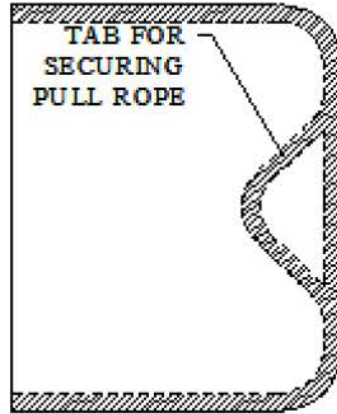
ID	PART NUM	PART DESC	QTY	CU-REF
COUFEM2INPVC-RDG		14180272	COUPLING FEMALE PVC TO RIGID COND 2"	
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006780	COUPLING PVC CONDUIT FEMALE 2 IN	1	EA 14180272
COUFEM3INPVC-RDG		14180273	COUPLING FEMALE PVC TO RIGID COND 3"	
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006781	COUPLING PVC CONDUIT FEMALE 3 IN	1	EA 14180273
COUFEM4INPVC-RDG		14180274	COUPLING FEMALE PVC TO RIGID COND 4"	
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006782	COUPLING PVC CONDUIT FEMALE 4 IN	1	EA 14180274
COUFEM5INPVC-RDG		14180275	COUPLING FEMALE PVC TO RIGID COND 5"	
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000006783	COUPLING PVC CONDUIT FEMALE 5 IN	1	EA 14180275

1418-02	CIVIL CONDUITS AND DUCT BANKS CONDUIT COUPLINGS AND REDUCERS SCHEDULE 40	
Sheet 4 of 4		Rev. Date
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	CIVIL CONDUITS AND DUCT BANKS CONDUIT PLUGS, CAPS, AND BELL ENDS SCH 40	1418-05 Sheet 1 of 4
	Rev. Date	

1418-05 CONDUIT PLUGS, CAPS, AND BELL ENDS SCH 40

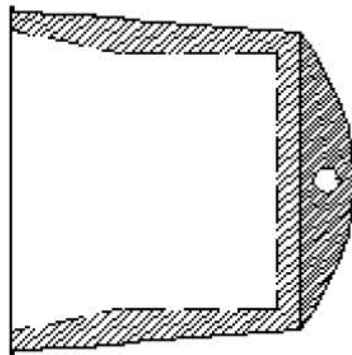


CAP PVC
 1418-05-32
 1418-05-33
 1418-05-34
 1418-05-35

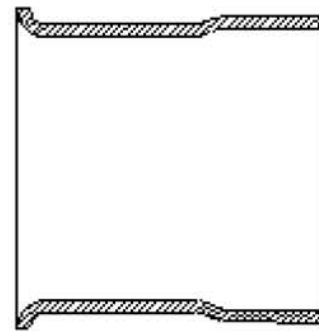
DO NOT USE REDUCERS WITHIN A CONDUIT RUN EXCEPT WHEN THE CONDUIT ENTERS A SUBSTRUCTURE OR IS ABOVE GROUND LEVEL SUCH AS A RISER POLE OR A SERVICE RISER.

MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.



PLUG
 1418-05-22
 1418-05-23
 1418-05-24
 1418-05-25




BELL END
 1418-05-42
 1418-05-43
 1418-05-44
 1418-05-45

PLUG ALL UNUSED CONDUITS IN ANY SUBSTRUCTURE. PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

USE BELL ENDS ON ALL CONDUIT TERMINATIONS AT SUBSTRUCTURES TO FACILITATE INSTALLATION OF CABLE AND AVOID DAMAGE TO CABLES DURING PULLING.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

1418-05	CIVIL CONDUITS AND DUCT BANKS CONDUIT PLUGS, CAPS, AND BELL ENDS SCH 40	
Sheet 2 of 4		
11/01		Rev. Date

CU

CU-ID	CU-REF	CU-DESCRIPTION				
PL2INPVC40	14180522	PLUG 2" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005268	PLUG PLASTIC CONDUIT 2 IN	1	EA	14180522	
PL3INPVC40	14180523	PLUG 3" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005269	PLUG PLASTIC CONDUIT 3 IN WITH PULLING EYE	1	EA	14180523	
PL4INPVC40	14180524	PLUG 4" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005270	PLUG PLASTIC CONDUIT 4 IN WITH PULLING EYE	1	EA	14180524	
PL5INPVC40	14180525	PLUG 5" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000005271	PLUG PLASTIC CONDUIT 5 IN WITH PULLING EYE	1	EA	14180525	
CAP40PVC2IN	14180532	CAP 2" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001121	CONDUIT CAP 2 IN PVC SCHED 40	1	EA	14180532	
CAP40PVC3IN	14180533	CAP 3" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001122	CONDUIT CAP 3 IN PVC SCHED 40	1	EA	14180533	
CAP40PVC4IN	14180534	CAP 4" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001123	CONDUIT CAP 4 IN PVC SCHED 40	1	EA	14180534	
CAP40PVC5IN	14180535	CAP 5" PVC SCH 40				
ID	PART NUM	PART DESC	QTY		CU-REF	
1	0000001124	CONDUIT CAP 5 IN PVC SCHED 40	1	EA	14180535	



Rev. Date

CIVIL
CONDUITS AND DUCT BANKS
CONDUIT PLUGS, CAPS, AND BELL ENDS SCH 40

1418-05
 Sheet 3 of 4
 11/01

CU-ID

CU-REF

CU-DESCRIPTION

BELLEND40PVC2IN 14180542 BELL END 2" PVC SCH 40

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000006785	BELL END PVC CONDUIT 2 IN	1	EA	14180542

BELLEND40PVC3IN 14180543 BELL END 3" PVC SCH 40


ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000006786	BELL END PVC CONDUIT 3 IN	1	EA	14180543

BELLEND40PVC4IN 14180544 BELL END 4" PVC SCH 40


ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000006787	BELL END PVC CONDUIT 4 IN	1	EA	14180544

BELLEND40PVC5IN 14180545 BELL END 5" PVC SCH 40

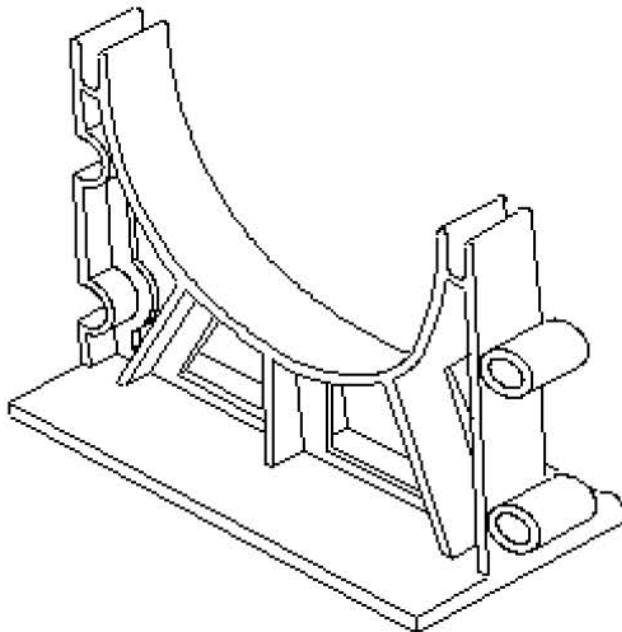
ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000006788	BELL END PVC CONDUIT 5 IN	1	EA	14180545

1418-05	CIVIL CONDUITS AND DUCT BANKS CONDUIT PLUGS, CAPS, AND BELL ENDS SCH 40	
Sheet 4 of 4		Rev. Date
11/01		

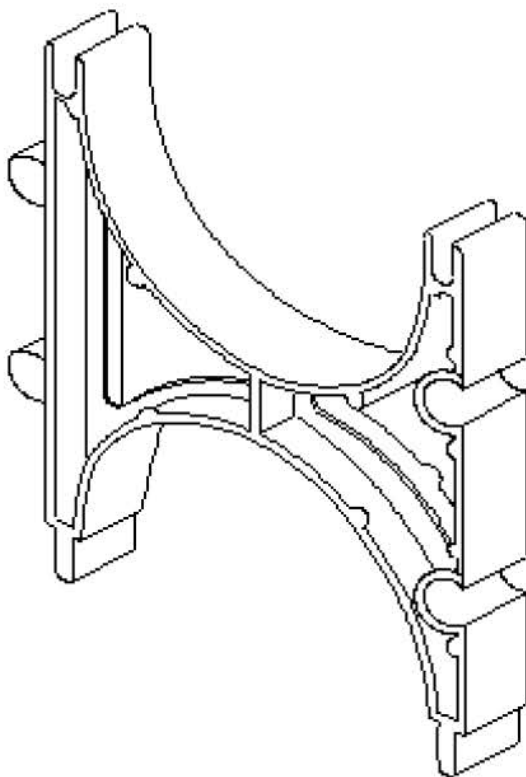
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	CIVIL CONDUITS AND DUCT BANKS CONDUIT SPACER	1418-10
	Rev. Date	Sheet 1 of 2


1418-10 CONDUIT SPACER



1418-10-21
 1418-10-31
 1418-10-41
 1418-10-51



1418-10-22
 1418-10-32
 1418-10-42
 1418-10-52

1418-10	CIVIL	 Rev. Date
Sheet 2 of 2	CONDUITS AND DUCT BANKS	
11/01	CONDUIT SPACER	

CU

CU-ID CU-REF CU-DESCRIPTION

CNDTSPCB2IN 14181021 COND SPACER BASE 2"

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005249	SPACER BASE FOR 2IN CONDUIT W/2IN SEPARATION	1	EA	14181021

CNDTSPCINT2IN 14181022 COND SPACER INTERMD 2"

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005231	SPACER INTERMEDIATE FOR 2IN CONDUIT W/2IN SEPARATION	1	EA	14181022

ID	PART NUM	PART DESC	QTY		CU-REF
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CNDTSPCINT3IN 14181032 COND SPACER INTERMD 3"

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005232	SPACER INTERMEDIATE FOR 3IN CONDUIT W/2IN SEPARATION	1	EA	14181032

CNDTSPCB4IN 14181041 COND SPACER BASE 4"

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005245	SPACER BASE FOR 4IN CONDUIT W/2IN SEPARATION	1	EA	14181041

CNDTSPCINT4IN 14181042 COND SPACER INTERMD 4"


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005229	SPACER INTERMEDIATE FOR 4IN CONDUIT W/2IN SEPARATION	1	EA	14181042

CNDTSPCB5IN 14181051 COND SPACER BASE 5"

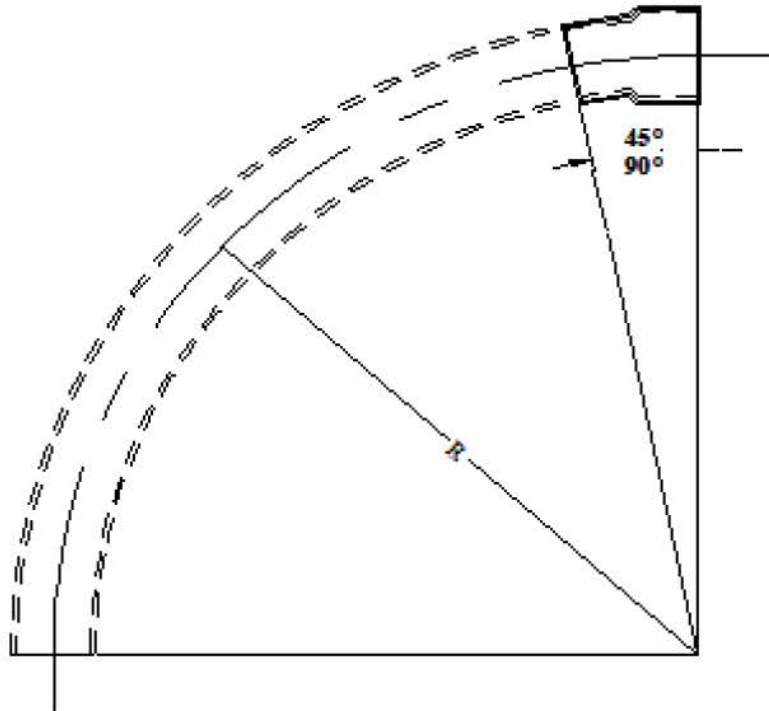
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005247	SPACER BASE FOR 5IN CONDUIT W/2IN SEPARATION	1	EA	14181051

CNDTSPCINT5IN 14181052 COND SPACER INTERMD 5"

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005230	SPACER INTERMEDIATE FOR 5IN CONDUIT W/2IN SEPARATION	1	EA	14181052

	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 9.5" AND 18" RADIUS PVC 40	1418-19
	Rev. Date	Sheet 1 of 2

1418-19 CONDUIT BEND 9.5" AND 18" RADIUS PVC 40




- 1418-19-01 2IN 9.5 IN RADIUS 90 DEG
- 1418-19-04 2IN 18 IN RADIUS 45 DEG
- 1418-19-07 3IN 18 IN RADIUS 45 DEG
- 1418-19-13 2IN 18 IN RADIUS 90 DEG
- 1418-19-16 3IN 18 IN RADIUS 90 DEG

USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS, AND TERMINATIONS EXCEPT FOR RISER BASE CONDUITS WHICH REQUIRE GALVANIZED.

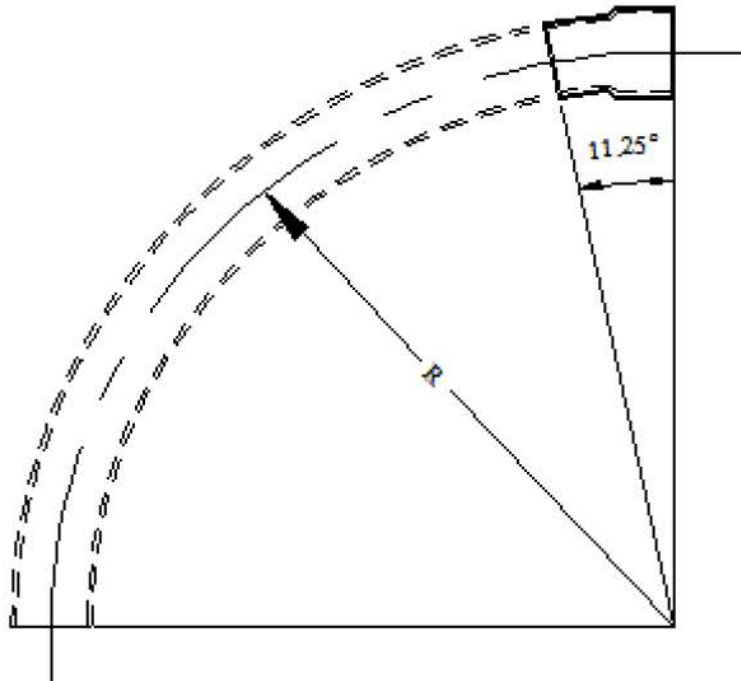
MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 11.25 DEGREE PVC 40	1418-20
	Rev. Date	Sheet 1 of 2

1418-20 CONDUIT BEND 11.25 DEGREE PVC 40




1418-20-36
 1418-20-46
 1418-20-56

USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS, AND TERMINATIONS EXCEPT FOR RISER BASE CONDUITS WHICH REQUIRE GALVANIZED.

MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY HANDDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGH CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2 IN. CONDUIT AND 65 FT. FOR CONDUITS 3 INCH OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH A STM F656 AND ASTM D2565 RESPECTIVELY.

1418-20	CIVIL	
Sheet 2 of 2	CONDUITS AND DUCT BANKS	
11/01	CONDUIT BEND 11.25 DEGREE PVC 40	Rev. Date

CU

CU-ID CU-REF CU-DESCRIPTION

BEND40PVC3IN11DEG-12FTR 14182036 COND BEND 11.25-DEG 3" PVC SCH 40,12.5'R


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001187	CONDUIT BEND PVC 3 IN SCHED 40 11.25 DEG R12.5 FT	1 EA	14182036

BEND40PVC4IN11DEG-12FTR 14182046 COND BEND 11.25-DEG 4" PVC SCH 40,12.5'R

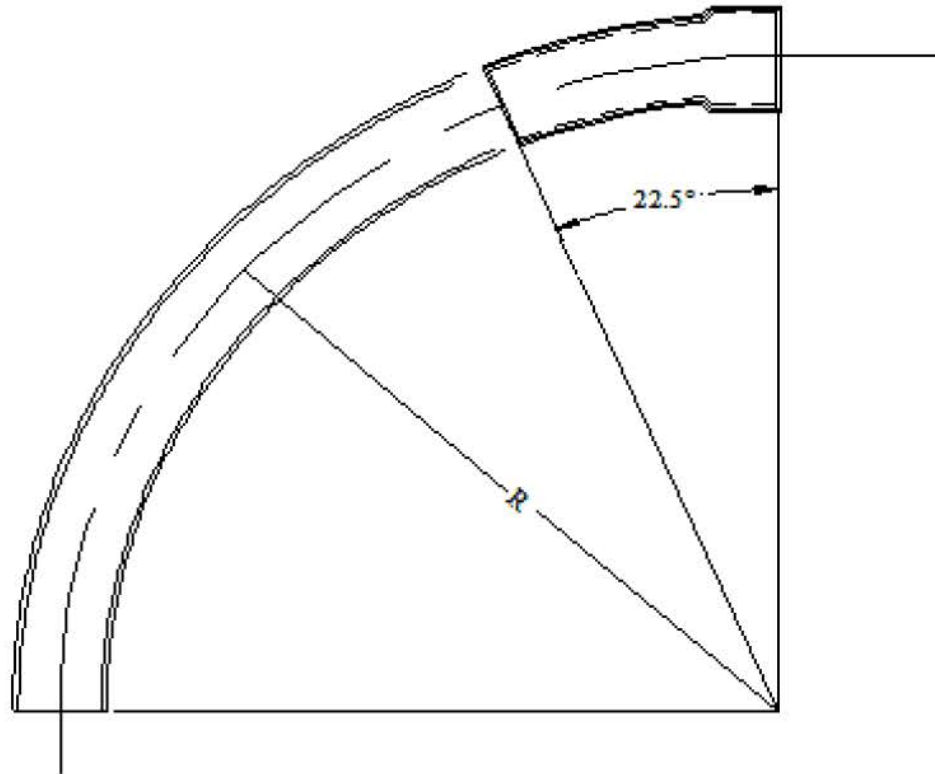
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001188	CONDUIT BEND PVC 4 IN SCHED 40 11.25 DEG R12.5 FT	1 EA	14182046

BEND40PVC5IN11DEG-12FTR 14182056 COND BEND 11.25-DEG 5" PVC SCH 40,12.5'R

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001189	CONDUIT BEND PVC 5 IN SCHED 40 11.25 DEG R12.5 FT	1 EA	14182056

	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 22.5 DEGREE PVC 40	1418-21 Sheet 1 of 2
	Rev. Date	

1418-21 CONDUIT BEND 22.5 DEGREE PVC 40




- 1418-21-23 2 IN 36 IN RADIUS
- 1418-21-24 2 IN 48 IN RADIUS
- 1418-21-26 2 IN 12.5 FT RADIUS
- 1418-21-33 3 IN 36 IN RADIUS
- 1418-21-34 3 IN 48 IN RADIUS
- 1418-21-36 3 IN 12.5 FT RADIUS
- 1418-21-46 4 IN 12.5 FT RADIUS
- 1418-21-56 5 IN 12.5 FT RADIUS

USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS, AND TERMINATIONS EXCEPT FOR RISER BASE CONDUITS WHICH REQUIRE GALVANIZED.

MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

1418-21	CIVIL	CONDUITS AND DUCT BANKS CONDUIT BEND 22.5 DEGREE PVC 40	
Sheet 2 of 2			
11/01			Rev. Date

CU

CU-ID	CU-REF	CU-DESCRIPTION
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BEND40PVC2IN22DEG-24INR 14182123 COND BEND 22.5-DEG 2" PVC SCH 40, 36" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001156	CONDUIT BEND PVC 2 IN SCHED 40 22.5 DEG 36 IN RAD	1	EA	14182123

BEND40PVC2IN22DEG-48INR 14182124 COND BEND 22.5-DEG 2" PVC SCH 40, 48" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001157	CONDUIT BEND PVC 2 IN SCHED 40 22.5 DEG R48	1	EA	14182124

BEND40PVC2IN22DEG-12FTR 14182126 COND BEND 22.5-DEG 2" PVC SCH 40, 12.5'R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001158	CONDUIT BEND PVC 2 IN SCHED 40 22.5 DEG R12.5 FT	1	EA	14182126

BEND40PVC2IN22DEG-36IN 14182133 COND BEND 22.5-DEG 3" PVC SCH 40, 36" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001165	CONDUIT BEND PVC 3 IN SCHED 40 22.5 DEG R36 IN	1	EA	14182133

BEND40PVC3IN22DEG-48INR 14182134 COND BEND 22.5-DEG 3" PVC SCH 40, 48" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001166	CONDUIT BEND PVC 3 IN SCHED 40 22.5 DEG R48 IN	1	EA	14182134

BEND40PVC3IN22DEG-12FTR 14182136 COND BEND 22.5-DEG 3" PVC SCH 40, 12.5'R


ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001191	CONDUIT BEND PVC 3 IN SCHED 40 22.5 DEG R 12.5 FT	1	EA	14182136

BEND40PVC4IN22DEG-12FTR 14182146 COND BEND 22.5-DEG 4" PVC SCH 40, 12.5'R

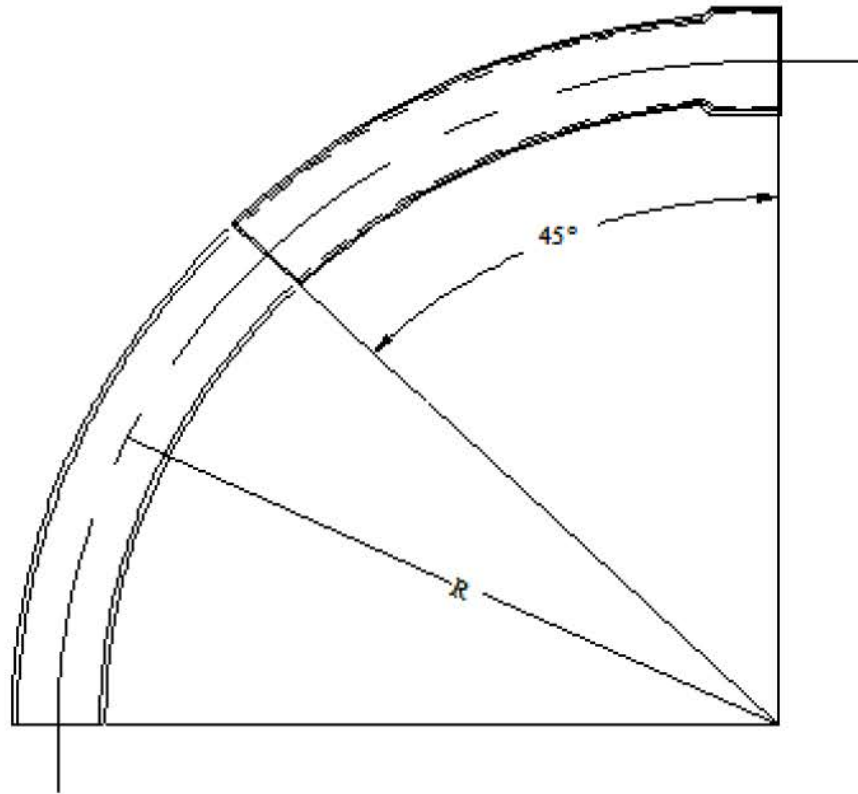
ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001192	CONDUIT BEND PVC 4 IN SCHED 40 22.5 DEG R12.5 FT	1	EA	14182146

BEND40PVC5IN22DEG-12FTR 14182156 COND BEND 22.5-DEG 5" PVC SCH 40, 12.5'R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001193	CONDUIT BEND PVC 5 IN SCHED 40 22.5 DEG R12.5 FT	1	EA	14182156

	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 45 DEGREE PVC 40	1418-22
	Rev. Date	

1418-22 CONDUIT BEND 45 DEGREE PVC 40




1418-22-23	2 IN 36 IN RADIUS
1418-22-24	2 IN 48 IN RADIUS
1418-22-26	2 IN 12.5 FT RADIUS
1418-22-33	3 IN 36 IN RADIUS
1418-22-34	3 IN 48 IN RADIUS
1418-22-36	3 IN 12.5 FT RADIUS
1418-22-44	4 IN 48 IN RADIUS
1418-22-46	4 IN 12.5 FT RADIUS
1418-22-56	5 IN 12.5 FT RADIUS

USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS, AND TERMINATIONS EXCEPT FOR RISER BASE CONDUITS WHICH REQUIRE GALVANIZED.

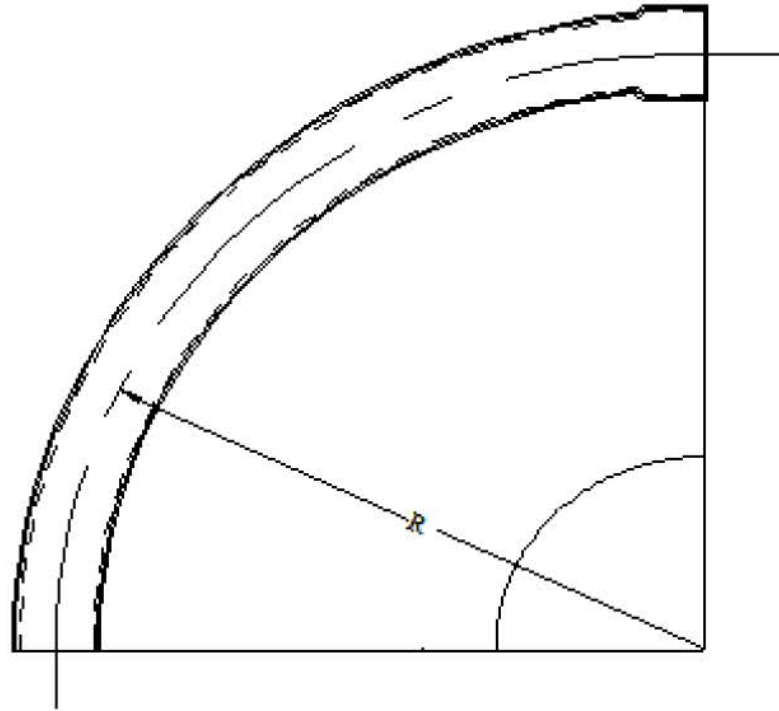
MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 90 DEGREE GALV AND SCH 40 PVC	1418-23 Sheet 1 of 3
	Rev. Date	11/01

1418-23 CONDUIT BEND 90 DEGREE GALV AND SCH 40 PVC




- | | |
|------------------------------|------------------------------|
| 1418-23-12 2IN GALV 36° RAD | 1418-23-34 3IN PVC 36° RAD |
| 1418-23-13 3IN GALV 36° RAD | 1418-23-36 3IN PVC 12.5° RAD |
| 1418-23-14 4IN GALV 24° RAD | 1418-23-41 4IN PVC 24° RAD |
| 1418-23-15 5IN GALV 36° RAD | 1418-23-43 4IN PVC 36° RAD |
| 1418-23-23 2IN PVC 24° RAD | 1418-23-44 4IN PVC 48° RAD |
| 1418-23-24 2IN PVC 48° RAD | 1418-23-46 4IN PVC 12.5° RAD |
| 1418-23-26 2IN PVC 12.5° RAD | 1418-23-54 5IN PVC 36° RAD |
| 1418-23-33 3IN PVC 24° RAD | 1418-23-56 5IN PVC 12.5° RAD |

USE TYPE PVC SCHEDULE 40 FOR ALL PVC CONDUIT BENDS, CONNECTORS, AND TERMINATIONS EXCEPT FOR RISER BASE CONDUITS WHICH REQUIRE GALVANIZED.

MAINTAIN ROUNDNESS OF CONDUIT AT ALL TIMES AND VERIFY AFTER INSTALLATION BY MANDRELLING.

DO NOT HEAT-BEND CONDUIT. STRAIGHT CONDUIT LENGTHS MAY BE COLD-BENT IN THE TRENCH IF THE RADIUS IS NOT LESS THAN 12.5 FT. FOR 2-IN. CONDUIT AND 65 FT. FOR CONDUITS 3-IN. OR LARGER IN DIAMETER.

PRIME AND CEMENT-WELD CONDUIT JOINTS. PRIMER AND CEMENT SHALL COMPLY WITH ASTM F656 AND ASTM D2565 RESPECTIVELY.

1418-23	CIVIL CONDUITS AND DUCT BANKS CONDUIT BEND 90 DEGREE GALV AND SCH 40 PVC	
Sheet 2 of 3		
11/01		Rev. Date

CU

CU-ID	CU-REF	CU-DESCRIPTION
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BENDGALV2IN90DEG-24INR	14182312	COND BEND, 90-DEG 2" GALV, 24"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	000000556	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 2 IN	1	EA	14182312
2	0000005426	COUPLING GALV CONDUIT 2 IN	1	EA	14182312
3	0000006780	COUPLING PVC CONDUIT FEMALE 2 IN	1	EA	14182312

BENDGALV3IN90DEG-36INR	14182313	COND BEND, 90-DEG 3" GALV, 36"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005353	ELBOW CONDUIT RIGID GALV 90 DEG 36 IN RADIUS 3 IN	1	EA	14182313
2	0000005427	COUPLING GALV CONDUIT 3 IN	1	EA	14182313
3	0000006781	COUPLING PVC CONDUIT FEMALE 3 IN	1	EA	14182313

BENDGALV3IN90DE-24INR	14182314	COND BEND, 90-DEG 4" GALV, 24"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	000000558	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 4 IN	1	EA	14182314
2	0000005428	COUPLING GALV CONDUIT 4 IN	1	EA	14182314
3	0000006782	COUPLING PVC CONDUIT FEMALE 4 IN	1	EA	14182314

BENDGALV5IN90DEG-24INR	14182315	COND BEND, 90-DEG 5" GALV, 24"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	000000559	ELBOW CONDUIT RIGID GALV 90 DEG 24 IN RADIUS 5 IN	1	EA	14182315
2	0000005429	COUPLING GALV CONDUIT 5 IN	1	EA	14182315
3	0000006783	COUPLING PVC CONDUIT FEMALE 5 IN	1	EA	14182315

BEND40PVC2IN90DEG-24INR	14182323	COND BEND, 90-DEG 2" PVC SCH 40, 24"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000005264	ELBOW CONDUIT PVC 90 DEG R 24 IN 2 IN	1	EA	14182323

BEND40PVC2IN90DEG-48INR	14182324	COND BEND, 90-DEG 2" PVC SCH 40, 48"R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001162	CONDUIT BEND PVC 2 IN SCHED 40 90 DEG R48 IN	1	EA	14182324

BEND40PVC2IN90DEG-12FTR	14182326	COND BEND, 90-DEG 2" PVC SCH 40, 12.5' R
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ID	PART NUM	PART DESC	QTY		CU-REF
1	0000001160	CONDUIT BEND PVC 2 IN SCHED 40 90 DEG R12.5 FT	1	EA	14182326

 AUSTIN ENERGY	CIVIL	1418-23
	CONDUITS AND DUCT BANKS CONDUIT BEND 90 DEGREE GALV AND SCH 40 PVC	Sheet 3 of 3
Rev. Date		11/01

CU-ID CU-REF CU-DESCRIPTION

BEN40PVC3IN90DEG-24INR 14182333 COND BEND, 90-DEG 3" PVC SCH 40, 24" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000005265	ELBOW CONDUIT PVC 90 DEG R 24 IN 3 IN	1	EA	14182333

BEND40PVC3IN90DEG-36INR 14182334 COND BEND, 90-DEG 3" PVC SCH 40, 36" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001169	CONDUIT BEND PVC 3 IN SCHED 40 90 DEG R36 IN	1	EA	14182334

BEND40PVC3IN90DEG-12FTR 14182336 COND BEND, 90-DEG 3" PVC SCH 40, 12.5' R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001168	CONDUIT BEND PVC 3 IN SCHED 40 90 DEG R12.5 FT	1	EA	14182336

BEND40PVC4IN90DEG-24INR 14182341 COND BEND, 90-DEG 4" PVC SCH 40, 24" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000005266	ELBOW CONDUIT PVC 90 DEG R 24 IN 4 IN	1	EA	14182341

BEND80PVC4IN90DEG-36INR 14182343 COND BEND, 90-DEG 4" PVC SCH 80, 36" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001178	CONDUIT BEND PVC 4 IN SCHED 80 90 DEG R36 IN	1	EA	14182343

BEND40PVC4IN90DEG-48INR 14182344 COND BEND, 90-DEG 4" PVC SCH 40, 48" R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001176	CONDUIT BEND PVC 4 IN SCHED 40 90 DEG R48 IN	1	EA	14182344

BEND40PVC4IN90DEG-12.5FTR 14182346 COND BEND, 90-DEG 4" PVC SCH 40, 12.5' R


ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001175	CONDUIT BEND PVC 4 IN SCHED 40 90 DEG R12.5 FT	1	EA	14182346

BEND40PVC5IN90DEG-36INR 14182354 COND BEND, 90-DEG 5" PVC SCH 40, 36" R

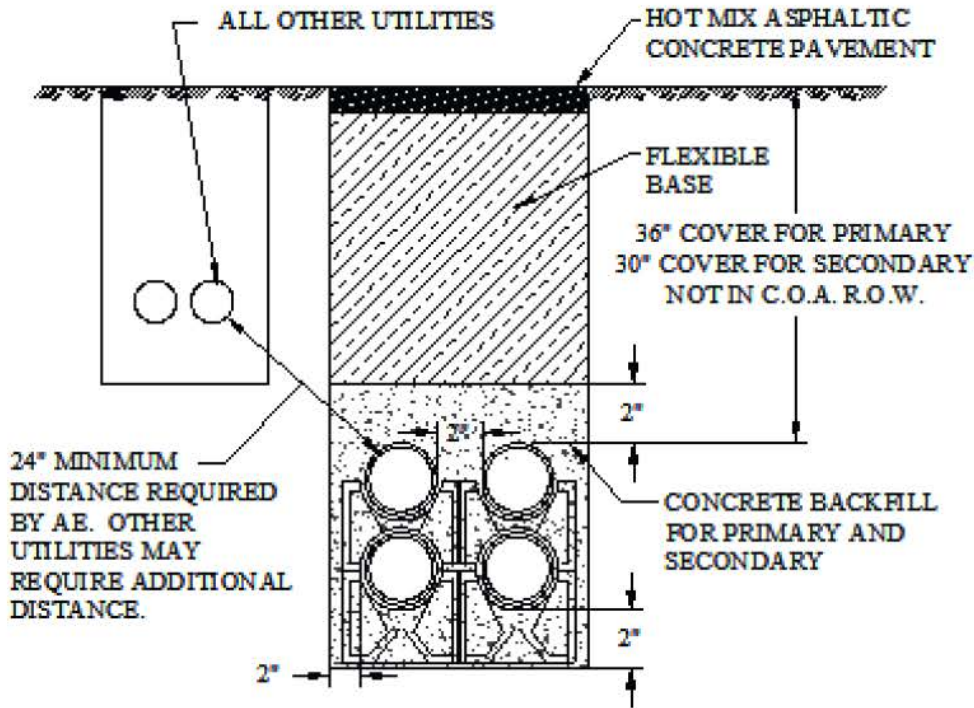
ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000005267	ELBOW PVC CONDUIT 90 DEG R 36 IN 5 IN	1	EA	14182354

BEND40PVC5IN90DEG12.5FTR 14182356 COND BEND, 90-DEG 5" PVC SCH 40, 12.5' R

ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000001179	CONDUIT BEND PVC 5 IN SCHED 40 90 DEG R12.5 FT	1	EA	14182356

1419-20	CIVIL CONDUITS AND DUCT BANKS TRENCH DETAIL FOR NETWORK	
Sheet 1 of 2		
11/01		Rev. Date

1419-20 TRENCH DETAIL FOR NETWORK



- 1419-20-10 BASE FLEXABLE - 1 CUYD
- 1419-20-20 CONCRETE HOT MIX ASPHALT - 1 CUYD
- 1419-20-30 CONCRETE BACKFILL - 1 CUYD


THE FLEXIBLE BASE MATERIAL SHALL CONSIST OF CRUSHED LIMESTONE PARTICLES AND DURABLE COURSE AGGREGATE PARTICLES MIXED WITH APPROVED BINDING MATERIALS AND SHALL CONFORM TO THE CITY OF AUSTIN, STANDARD SPECIFICATION, ITEM NO. 210, FLEXIBLE BASE.

IN ENCASED CONCRETE INSTALLATIONS, THE CONCRETE MIXTURE SHALL DEVELOP A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS AND SHALL HAVE A MINIMUM OF FOUR SACKS OF CONCRETE PER CUBIC YARD. MAXIMUM SLUMP FOR THE MIXTURE SHALL BE 6-IN., AND THE AGGREGATE IN THE MIXTURE SHALL BE NO LARGER THAN 3/8-IN. (2" MIN. CONCRETE ENCASEMENT)

HOT MIX ASPHALTIC CONCRETE PAVEMENT SHALL BE THE TYPE NECESSARY TO REPLACE OR MATCH PAVEMENT REMOVED DURING THE PURSUANCE OF DUCTLINE CONSTRUCTION AND SHALL CONFORM TO THE CITY OF AUSTIN, STANDARD SPECIFICATION, ITEM NO. 340, HOT MIX ASPHALTIC CONCRETE.

CONDUIT SPACERS SHALL BE REQUIRED FOR ALL STACKED CONDUIT CONFIGURATIONS.

BACKFILL IN PAVED STREETS WITHIN THE CITY LIMITS OF AUSTIN SHALL CONFORM TO THE CITY OF AUSTIN, PUBLIC WORKS AND TRANSPORTATION DEPARTMENT SPECIFICATION, CUTS IN PUBLIC RIGHT-OF-WAY. BACKFILL IN COUNTY OR STATE HIGHWAY RIGHT-OF-WAY SHALL CONFORM TO THE REQUIREMENT OF THE OFFICIAL AUTHORITY FOR THE CONSTRUCTION LOCATION.

	CIVIL CONDUITS AND DUCT BANKS TRENCH DETAIL FOR NETWORK	1419-20
		Sheet 2 of 2
Rev. Date		11/01

CU

CU-ID CU-REF CU-DESCRIPTION

BASEFLEX-1CY 14192010 FLEXIBLE BASE - 1 CUBIC YARD

ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001407	BASE FLEXIBLE ONE CUBIC YARD BASE FLEX ICY	1 CY	14192010

HMASPCONPAV-1CY 14192020 HOT MIX ASPH CONCRETE - 1 CUBIC YARD


ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001408	HOT MIX ASPHALTIC CONCRETE PAVEMENT ONE CUBIC YARD	1 CY	14192020

CON2000PSI 14192030 CONCRETE BACKFILL 1 CUBIC YARD

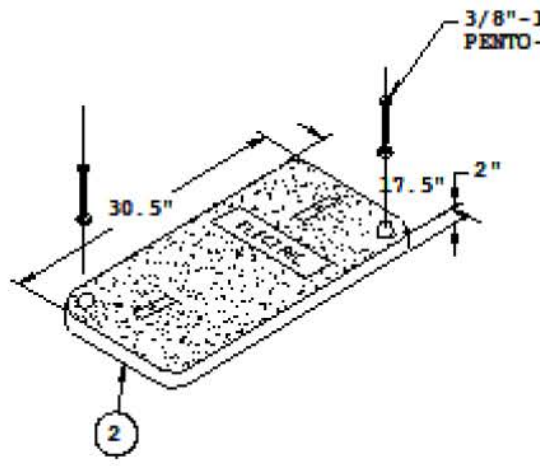
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000001423	CONCRETE 2000 PSI	1 CY	14192030

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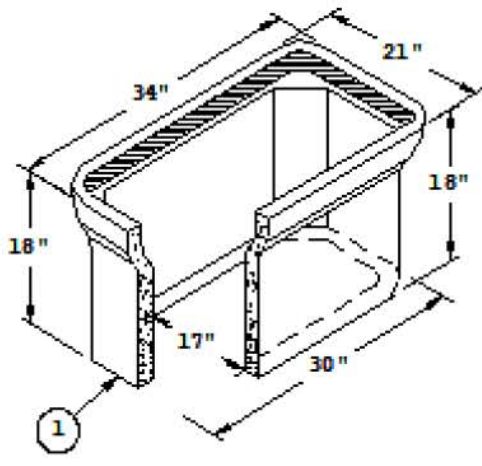
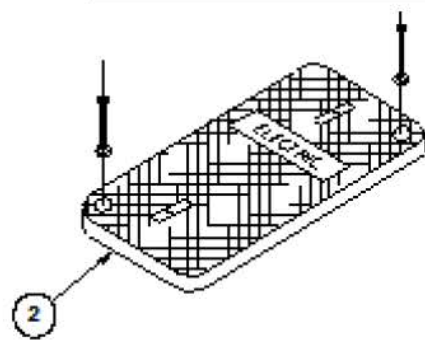
CIVIL
PULLBOXES
PULLBOX 17 IN X 30 IN


Rev. Date

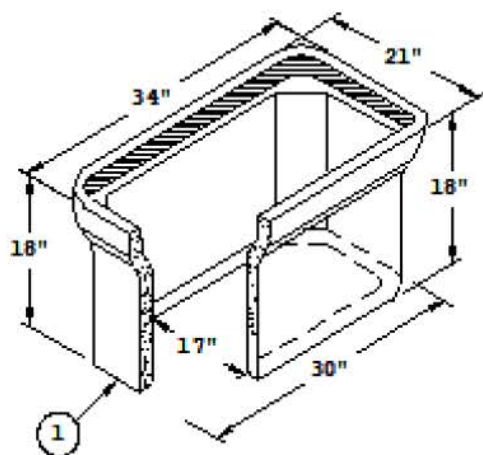
1448 PULLBOXES
1448-11 PULLBOX 17 IN X 30 IN



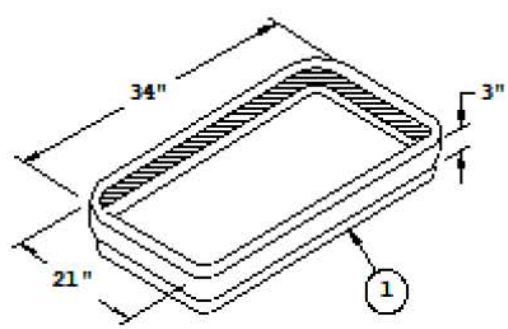
*THESE MODULES HAVE MULTIPLE CU'S THAT ARE ASSOCIATED WITH THEM AND ARE DETERMINED BY CONTRACT LABOR BID UNITS



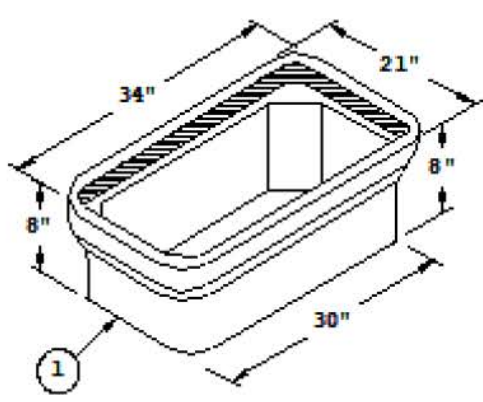
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***1448-10-03**



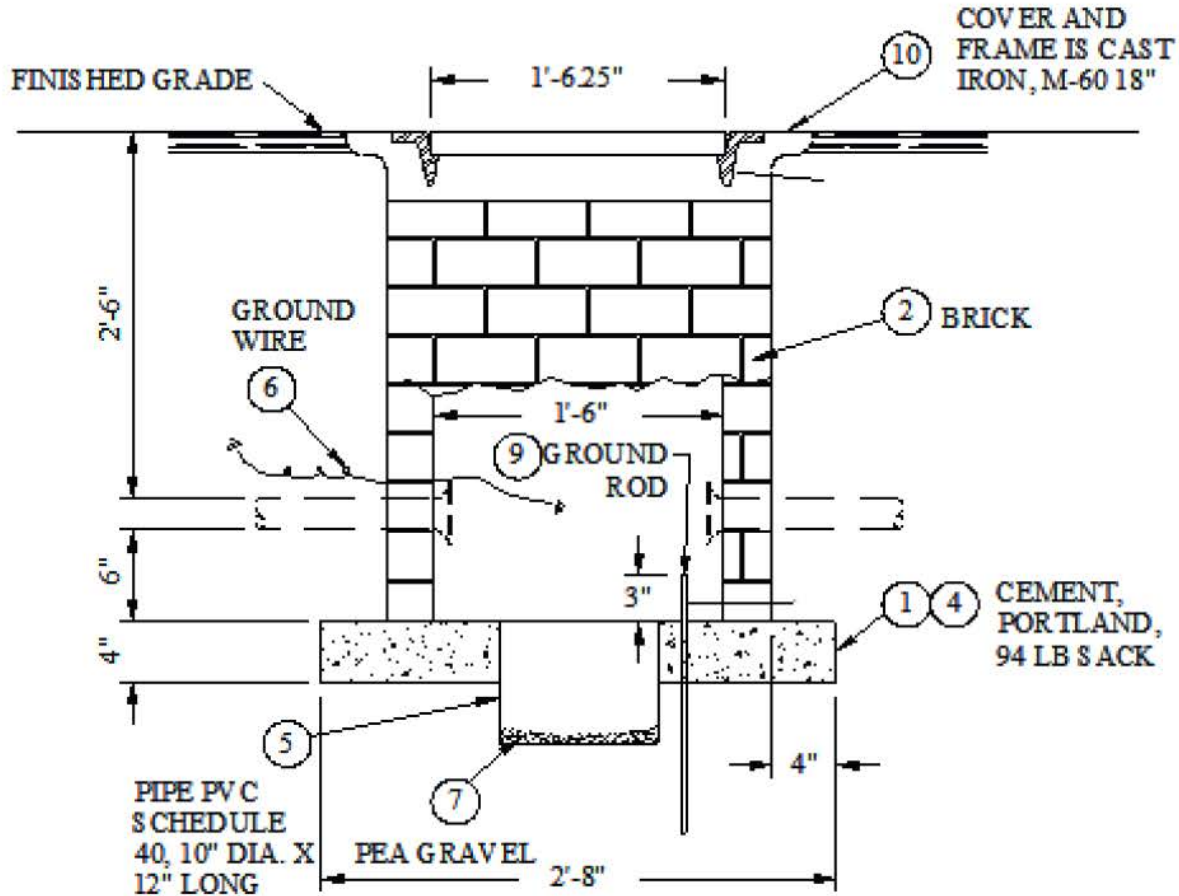
1448-10-05



1448-10-07

1448-14	CIVIL PULLBOXES PULLBOX 18 IN. FOR EXISTING CONDUIT	
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1448-14 PULLBOX 18 IN. FOR EXISTING CONDUIT



*1448-14-18

NOTES

- * GROUNDING: 35' OF 2/0 S TRANDED BARE S OFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" CU. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
- * MAXIMUM ALLOWABLE CABLE BY THE CUSTOMER: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE.
- * BELL ENDS NEED TO BE GROUTED FLUSH TO THE WALLS.

 Rev. Date	CIVIL PULLBOXES PULLBOX 18 IN. FOR EXISTING CONDUIT	1448-14
		Sheet 2 of 2 11/01

CU

CU-ID CU-REF CU-DESCRIPTION

PB18INWHDCE 14481518E PB 18" W/HD COVER EAST


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000002672	CEMENT PORTLAND 94 LB SACK 35 EA/PALLET	3	EA	14481518E
10	0000015284	COVER/FRAME MANHOLE SQ TRAFFIC TY DUCTILE IRON M60 18IN	1	EA	14481518E
11	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481518E
2	0000003011	BRICK COMMON SMALL 3 HOLE	125	EA	14481518E
3	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14481518E
4	0000001391	SAND ONE CUBIC YARD	.5	EA	14481518E
5	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518E
6	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	20	EA	14481518E
7	0000001731	GRAVEL PEA	.1	EA	14481518E
9	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481518E

PB18INWHDCEW 14481518W PB 18" W/HD COVER WEST

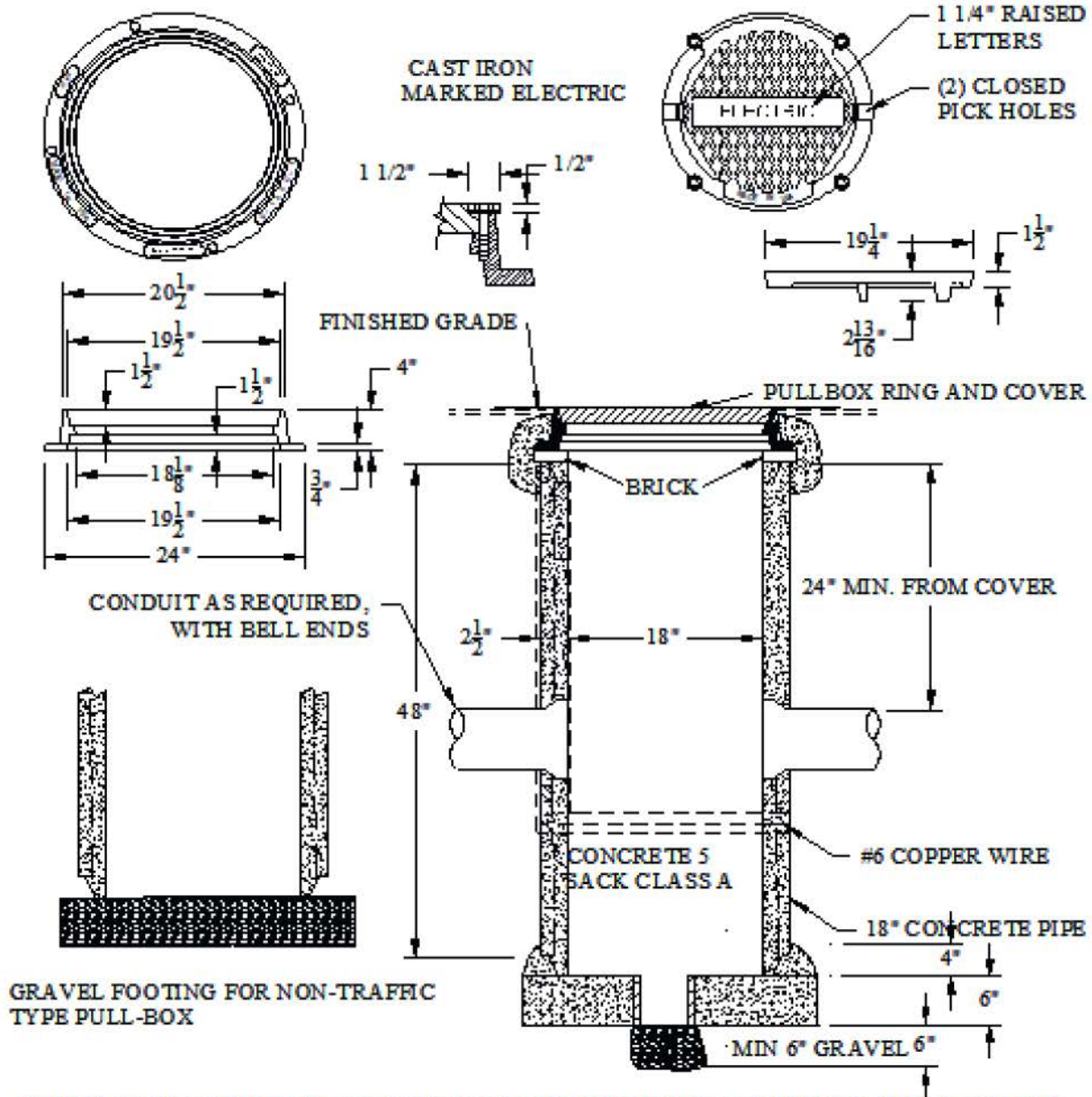
ID	PART NUM	PART DESC	QTY		CU-REF
1	0000002672	CEMENT PORTLAND 94 LB SACK 35 EA/PALLET	3	EA	14481518W
10	0000015284	COVER/FRAME MANHOLE SQ TRAFFIC TY DUCTILE IRON M60 18IN	1	EA	14481518W
2	0000003011	BRICK COMMON SMALL 3 HOLE	125	EA	14481518W
3	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	40	EA	14481518W
4	0000001391	SAND ONE CUBIC YARD	.5	EA	14481518W
5	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518W
6	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	20	EA	14481518W
7	0000001731	GRAVEL PEA	.1	EA	14481518W
8	0000001216	CLAMP TWO-BOLT FOR #2 STR-2/0 STR TAP #6 STR-2/0 STR	1	EA	14481518W

PB18INWHDCEW 14481518N PB 18" W/HD COVER NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000002672	CEMENT PORTLAND 94 LB SACK 35 EA/PALLET	3	EA	14481518N
10	0000015284	COVER/FRAME MANHOLE SQ TRAFFIC TY DUCTILE IRON M60 18IN	1	EA	14481518N
11	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481518N
2	0000003011	BRICK COMMON SMALL 3 HOLE	125	EA	14481518N
3	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14481518N
4	0000001391	SAND ONE CUBIC YARD	.5	EA	14481518N
5	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518N
6	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	20	EA	14481518N
7	0000001731	GRAVEL PEA	.1	EA	14481518N
9	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481518N

1448-15	CIVIL PULLBOXES PULLBOX 18 IN. TRAFFIC & STANDARD TYPE	
Sheet 1 of 3		
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1448-15 PULLBOX 18 IN. TRAFFIC & STANDARD TYPE



- CONCRETE PIPE SHALL BE 4 FT X 18 INCH ID X 2.5 INCH WALL THICKNESS, AND BE RCP C76 CLASS III WITH STEEL REINFORCEMENT ASTM A615 GRADE 60.
- GROUNDING: 35' OF #6 SOLID BARE SOFT-DRAWN, BARE COPPER GROUND. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
- MAXIMUM ALLOWABLE CABLE BY CUSTOMER: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE.
- BELL ENDS NEED TO BE GROUTED FLUSH TO THE WALLS.
- ALL TRAFFIC TYPE ARE TO HAVE CONCRETE FOOTING. ALL NON TRAFFIC TYPE ARE TO HAVE GRAVEL FOOTING..
- USE RUBBER RINGS FOR ADJUSTING HEIGHT OR ANGLE OF RING & COVER. USE CAST IRON 2IN RISER FOR HEIGHT ADJUSTMENT IN ROADWAYS.



Rev. Date

CIVIL
PULLBOXES
PULLBOX 18 IN. TRAFFIC & STANDARD TYPE

1448-15

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CU

CU-ID

CU-REF

CU-DESCRIPTION

PB18INWPIPEHDCE

14481518E

PB 18" W/PIPE HD COVER EAST


ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE, CONCRETE, 4 FOOT X 18 INCH ID	1	EA	14481518E
10	0000023551	RING, GRAY IRON, HD, ASTM A48 TESTED, FOR EJIW #4160013	1	EA	14481518E
11	0000023552	COVER, GRAY IRON, HD, ASTM A48 TESTED, DIA 19&1-4" X 1&	1	EA	14481518E
12	0000001731	GRAVEL PEA	.1	EA	14481518E
2	0000003011	BRICK COMMON SMALL 3 HOLE	12	EA	14481518E
3	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481518E
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481518E
5	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14481518E
6	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518E
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14481518E
8	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	35	EA	14481518E
9	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14481518E

PB18INWPIPEHDCW

14481518W

PB 18" W/PIPE HD COVER WEST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE, CONCRETE, 4 FOOT X 18 INCH ID	1	EA	14481518W
10	0000023551	RING, GRAY IRON, HD, ASTM A48 TESTED, FOR EJIW #4160013	1	EA	14481518W
11	0000023552	COVER, GRAY IRON, HD, ASTM A48 TESTED, DIA 19&1-4" X 1&	1	EA	14481518W
12	0000001731	GRAVEL PEA	.1	EA	14481518W
2	0000003011	BRICK COMMON SMALL 3 HOLE	12	EA	14481518W
3	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481518W
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481518W
5	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14481518W
6	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518W
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14481518W
8	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	35	EA	14481518W
9	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14481518W

1448-15	CIVIL PULLBOXES PULLBOX 18 IN. TRAFFIC & STANDARD TYPE	
Sheet 3 of 3		
11/01		Rev. Date


CU

CU-ID CU-REF CU-DESCRIPTION

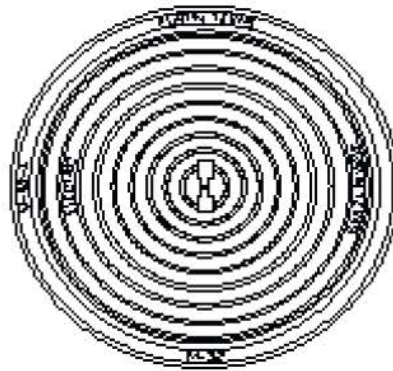
PB18INWPIPEHDCN 14481518N PB 18" W/PIPE HD COVER NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000023553	PIPE, CONCRETE, 4 FOOT X 18 INCH ID	1	EA	14481518N
10	0000023551	RING, GRAY IRON, HD, ASTM A48 TESTED, FOR EJIW #4160013	1	EA	14481518N
11	0000023552	COVER, GRAY IRON, HD, ASTM A48 TESTED, DIA 19&1-4" X 1&	1	EA	14481518N
12	0000001731	GRAVEL PEA	.1	EA	14481518N
2	0000003011	BRICK COMMON SMALL 3 HOLE	12	EA	14481518N
3	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14481518N
4	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14481518N
5	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14481518N
6	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14481518N
7	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14481518N
8	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	35	EA	14481518N
9	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14481518N

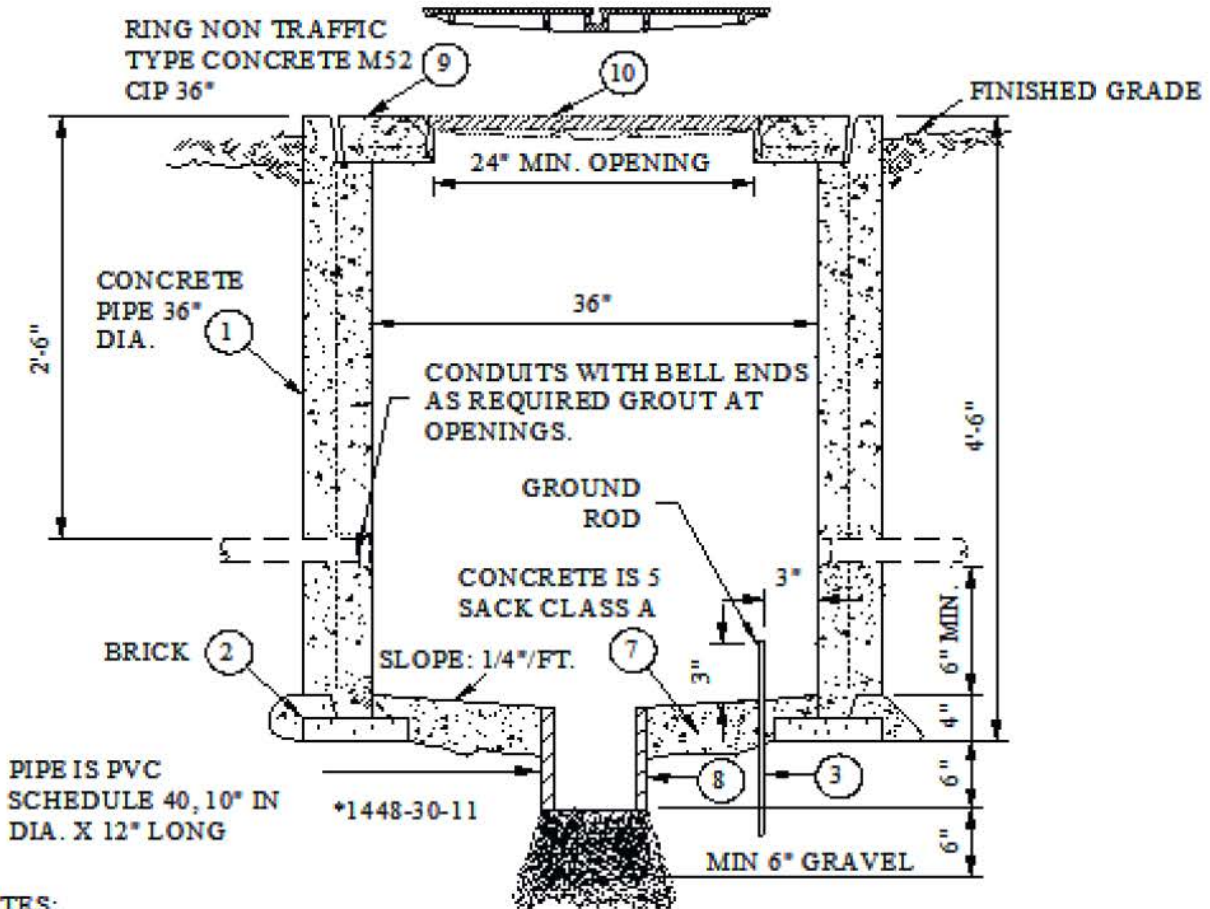
FOR DETAILS	SEE PAGE
STRUCTURE GROUNDING	1488-10 AND 1488-20

	CIVIL PULLBOXES PULLBOX 36-IN. W/STANDARD COVER	1448-30 Sheet 1 of 4
	Rev. Date	

1448-30 PULLBOX 36-IN. W/STANDARD COVER




COVER IS DUCTILE
IRON M-52A, 24"




NOTES:

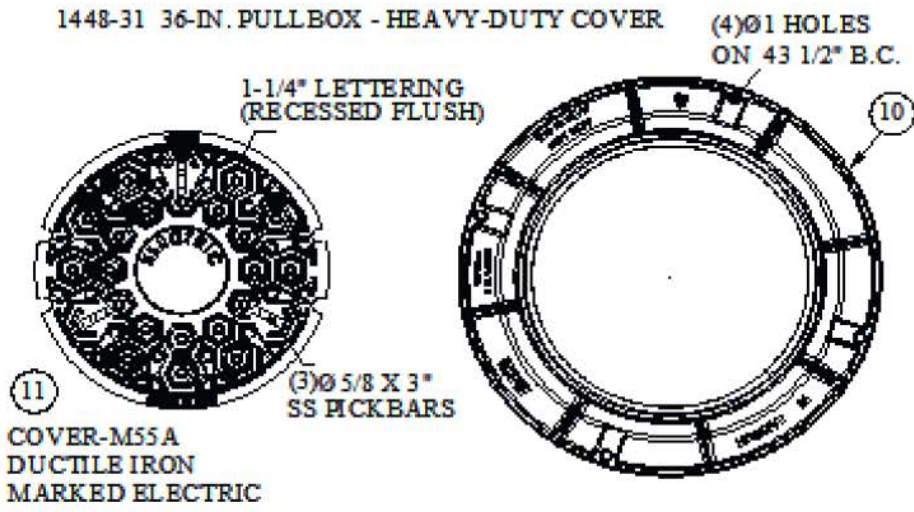
- * **GROUNDING:** 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" CU. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20)
- * **METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.**
- * **WHEN THE PULLBOX IS INSTALLED IN DRIVEWAYS OR PARKING LOTS USE TRAFFIC TYPE SHOWN ON PAGE 1448-31.**
- * **MAXIMUM ALLOWABLE CABLE BY THE CUSTOMERS:** 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE. SEE SECTION 1.5.2.5.B.1.A SECOND PARAGRAPH IN THE CRITERIA MANUAL, LATEST REVISION.
- * **TOP OF BOX NEEDS TO BE 3" TO 4" ABOVE NATURAL GROUND LEVEL.**

1448-30	CIVIL PULLBOXES PULLBOX 36-IN. W/STANDARD COVER	
Sheet 4 of 4		Rev. Date
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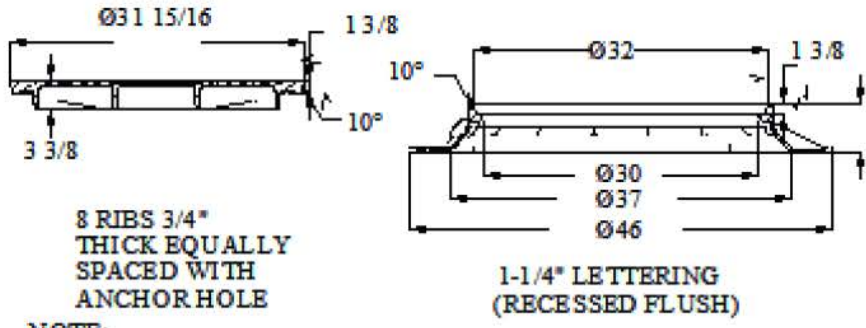
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 Rev. Date	CIVIL PULLBOXES PULLBOX 36-IN. W/HD COVER (TRAFFIC TYPE)	1448-31 Sheet 1 of 4

1448-31 PULLBOX 36-IN. W/HD COVER (TRAFFIC TYPE)



COVER-M55A
DUCTILE IRON
MARKED ELECTRIC

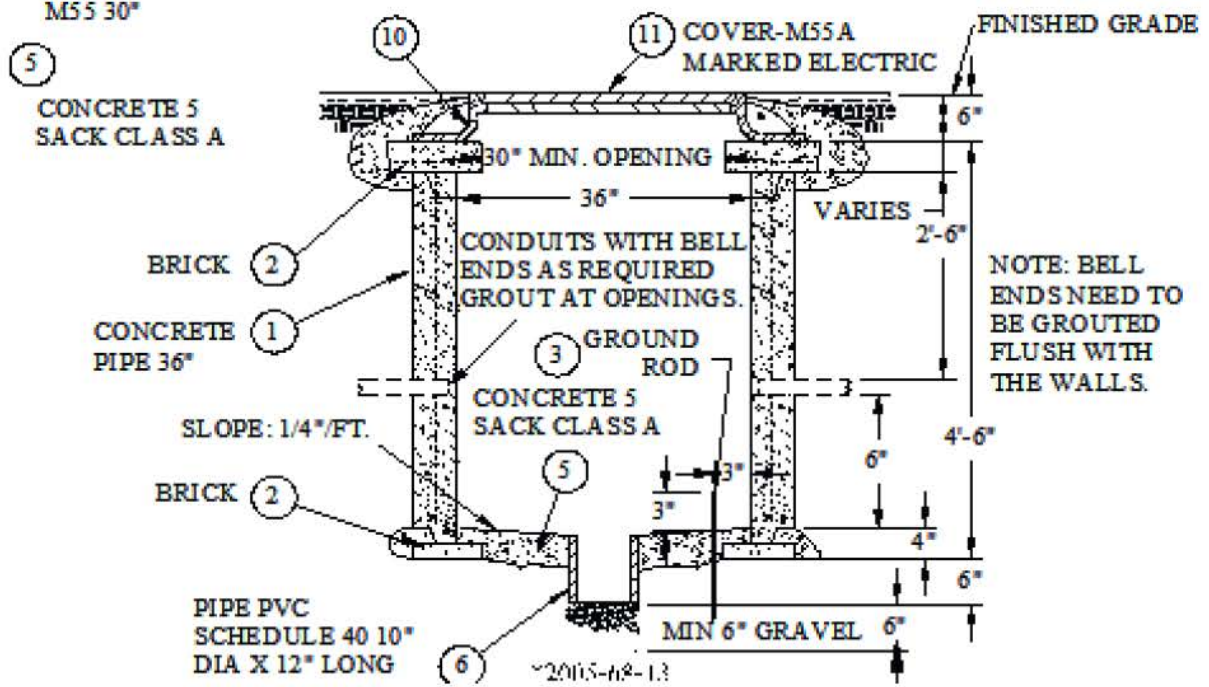


8 RIBS 3/4"
THICK EQUALLY
SPACED WITH
ANCHOR HOLE


1-1/4" LETTERING
(RECESSED FLUSH)

NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON
M55 30"


NOTES:
 * GROUNDING 35' OF 2/0 STRANDED BARE SOFT-DRAWN, COPPER GROUND OR 5/8" X 8'-0" C.U. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
 * MAXIMUM ALLOWABLE CABLE BY THE CUSTOMERS: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE. SEE SECTION 15.2.5 B.1.A, SECOND PARAGRAPH IN THE CRITERIA MANUAL, LATEST REVISION.
 * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
 * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.



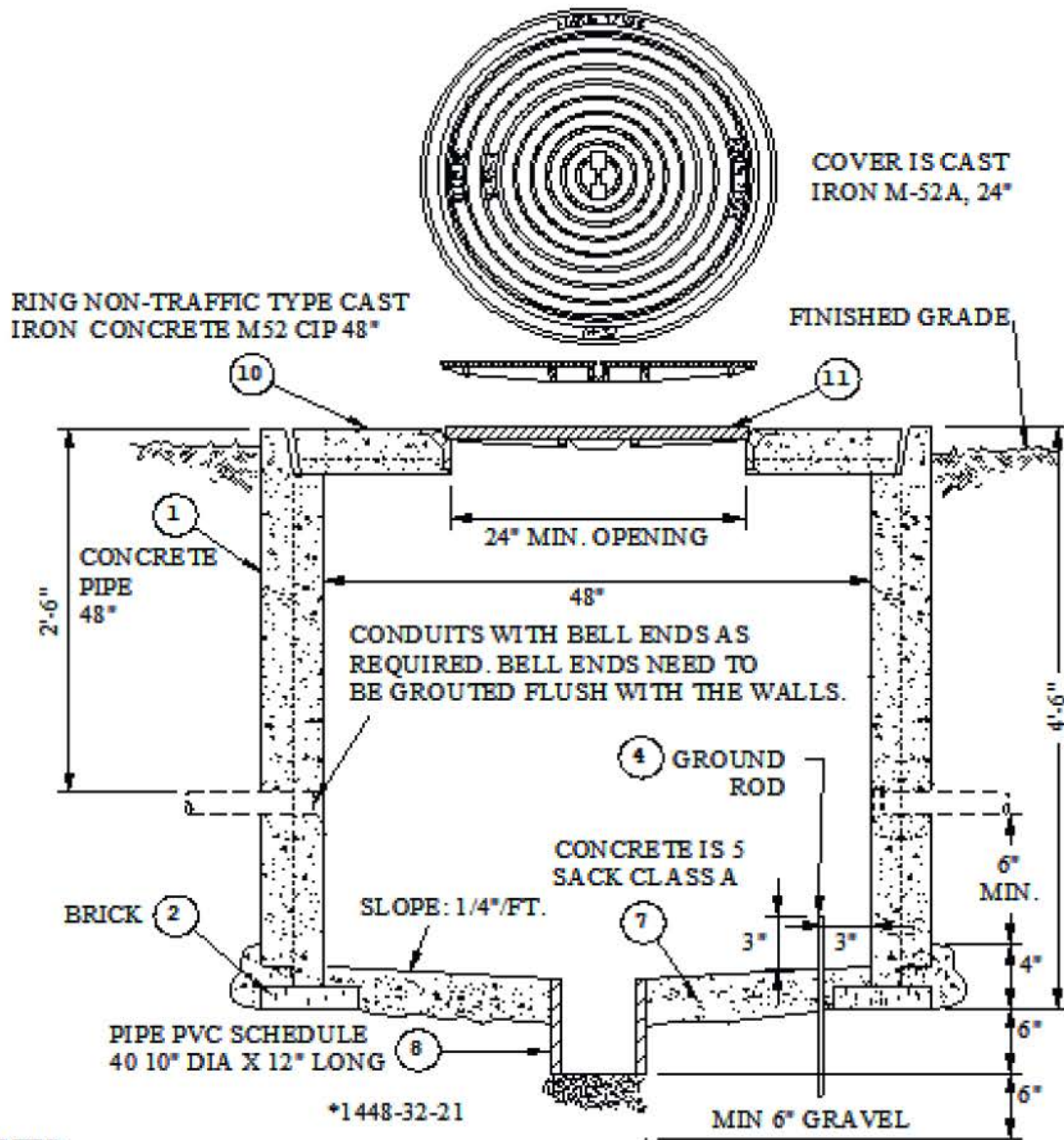
NOTE: BELL ENDS NEED TO BE GROUTED FLUSH WITH THE WALLS.

1448-31	CIVIL PULLBOXES PULLBOX 36-IN. W/HD COVER (TRAFFIC TYPE)	
Sheet 4 of 4		Rev. Date
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	CIVIL PULLBOXES PULLBOX 48-IN. W/STANDARD COVER	1448-32 Sheet 1 of 4 11/01
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1448-32 PULLBOX 48-IN. W/STANDARD COVER



NOTES:

- * GROUNDING: 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" CU. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
- * MAXIMUM ALLOWABLE CABLE BY THE CUSTOMERS: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE. SEE SECTION 1.5.2.5.B.1 A, SECOND PARAGRAPH IN THE CRITERIA MANUAL LATEST REVISION.
- * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
- * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.
- * TOP OF BOX NEEDS TO BE 3" TO 4" ABOVE NATURAL GROUND LEVEL.
- * WHEN THE HANDHOLD IS INSTALLED IN DRIVEWAYS AND PARKING LOTS, USE TRAFFIC TYPE SHOWN ON PAGE 1488-33

1448-32	CIVIL PULLBOXES PULLBOX 48-IN. W/STANDARD COVER	
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11/01		Rev. Date

CU


CU-ID CU-REF CU-DESCRIPTION

PB48INWSCE 14483221E PB 48" W/STD COVER EAST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221E
10	000003003	RING MANHOLE NON-TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221E
11	0000015285	COVER MANHOLE NONTRAFFIC DUCTILE IRON M52A 24" MARKD EL	1	EA	14483221E
2	000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221E
3	000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221E
4	000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14483221E
5	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14483221E
6	000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14483221E
7	000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221E
8	000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221E
9	000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14483221E

PB48INWSCW 14483221W PB 48" W/STD COVER WEST

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221W
10	000003003	RING MANHOLE NON-TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221W
11	0000015285	COVER MANHOLE NONTRAFFIC DUCTILE IRON M52A 24" MARKD EL	1	EA	14483221W
13	000001216	CLAMP TWO-BOLT FOR #2 STR-2/0 STR TAP #6 STR-2/0 STR	1	EA	14483221W
2	000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221W
3	000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221W
7	000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221W
8	000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221W
9	000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	40	EA	14483221W


	CIVIL	1448-32
	PULLBOXES	Sheet 3 of 4
Rev. Date	PULLBOX 48-IN. W/STANDARD COVER	11/01

CU-ID CU-REF CU-DESCRIPTION


PB48INWSCN 14483221N PB 48" W/STD COVER NETWORK

ID	PART NUM	PART DESC	QTY		CU-REF
1	0000022501	MANHOLE CONCRETE PIPE 48 IN	1	EA	14483221N
10	000003003	RING MANHOLE NON-TRAFFIC CONCRETE M52 CAST IN PLC 48IN	1	EA	14483221N
11	0000015285	COVER MANHOLE NONTRAFFIC DUCTILE IRON M52A 24" MARKD EL	1	EA	14483221N
2	000003011	BRICK COMMON SMALL 3 HOLE	4	EA	14483221N
3	000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14483221N
4	000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14483221N
5	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14483221N
6	000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14483221N
7	0000001402	CONCRETE 5 SACK CLASS A	.25	EA	14483221N
8	0000001401	PIPE PVC SCH 40 10IN DIA X 12IN LONG FOR MANHOLE DRAIN	1	EA	14483221N
9	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14483221N

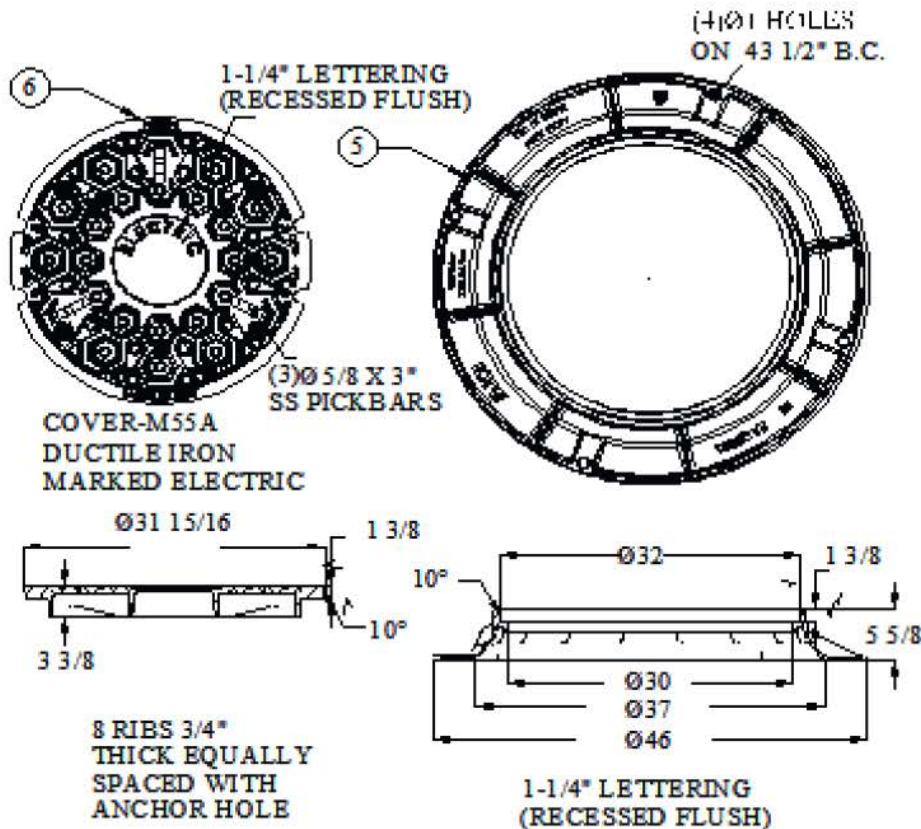
FOR DETAILS	SEE PAGE
STRUCTURE GROUNDING	1488-10 AND 1488-20

1448-32	CIVIL PULLBOXES PULLBOX 48-IN. W/STANDARD COVER	
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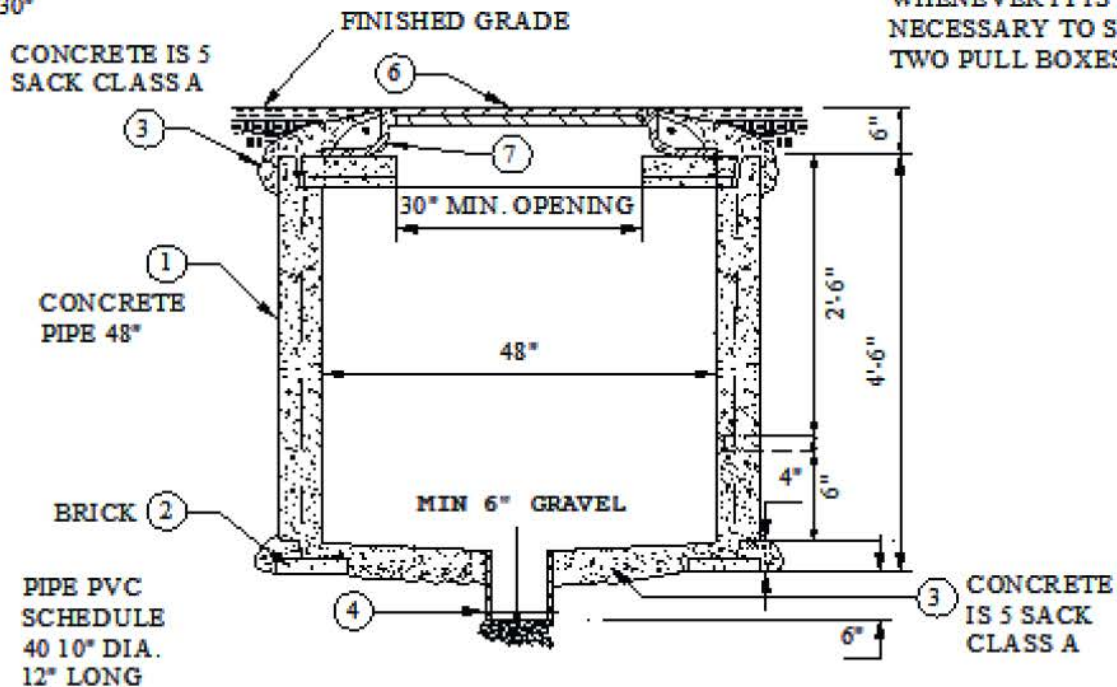
	CIVIL PULLBOXES PULLBOX 48-IN. W/HD COVER (TRAFFIC TYPE)	1448-33 Sheet 1 of 3
	Rev. Date	


1448-33 PULLBOX 48-IN. W/HD COVER (TRAFFIC TYPE)



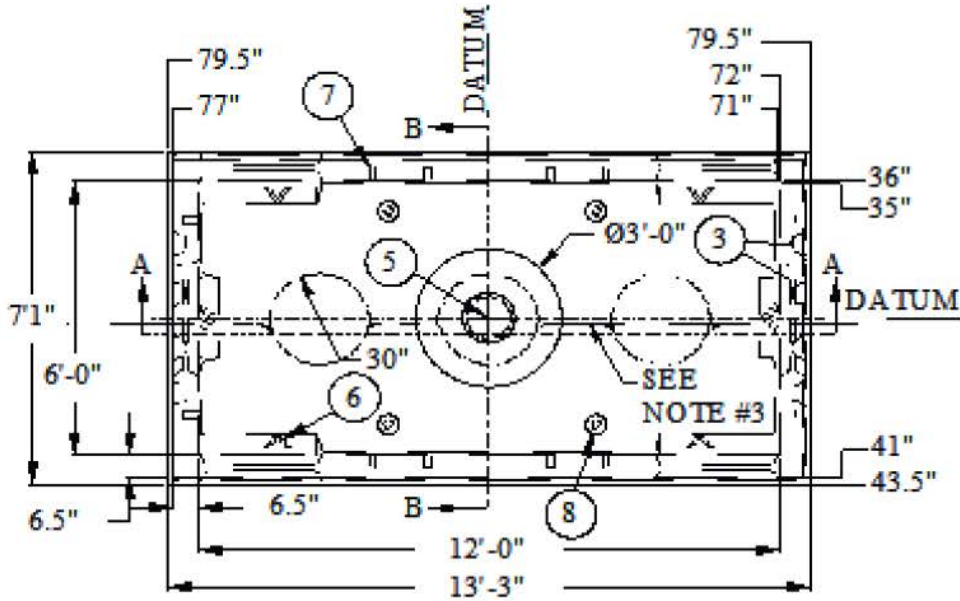
- NOTES:**
- * GROUNDING 35' OF 2/0 STRANDED BARE SOFT-DRAWN, TINNED COPPER GROUND OR 5/8" X 8'-0" C.U. COPPERWELD GROUND ROD. (SEE GROUNDING DETAIL 1488-10 AND 1488-20).
 - * MAXIMUM ALLOWABLE CABLE BY THE CUSTOMERS: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE. SEE SECTION 1.5.2.5.B.1 A, SECOND PARAGRAPH IN THE CRITERIA MANUAL LATEST REVISION.
 - * METAL RING & CONCRETE RING PRE-CAST TO FIT GROOVE DIA. & DEPTH W/ 1/2" CLEARANCE AROUND EDGE OF PULL BOX.
 - * 48" PULL BOXES SHALL BE REQUIRED WHENEVER IT IS NECESSARY TO STACK TWO PULL BOXES.

NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"



1458-06A	CIVIL MANHOLES MANHOLES 6-FT X 12-FT	
Sheet 1 of 6		
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1458 **MANHOLES**
1458-06A MANHOLES 6-FT X 12-FT

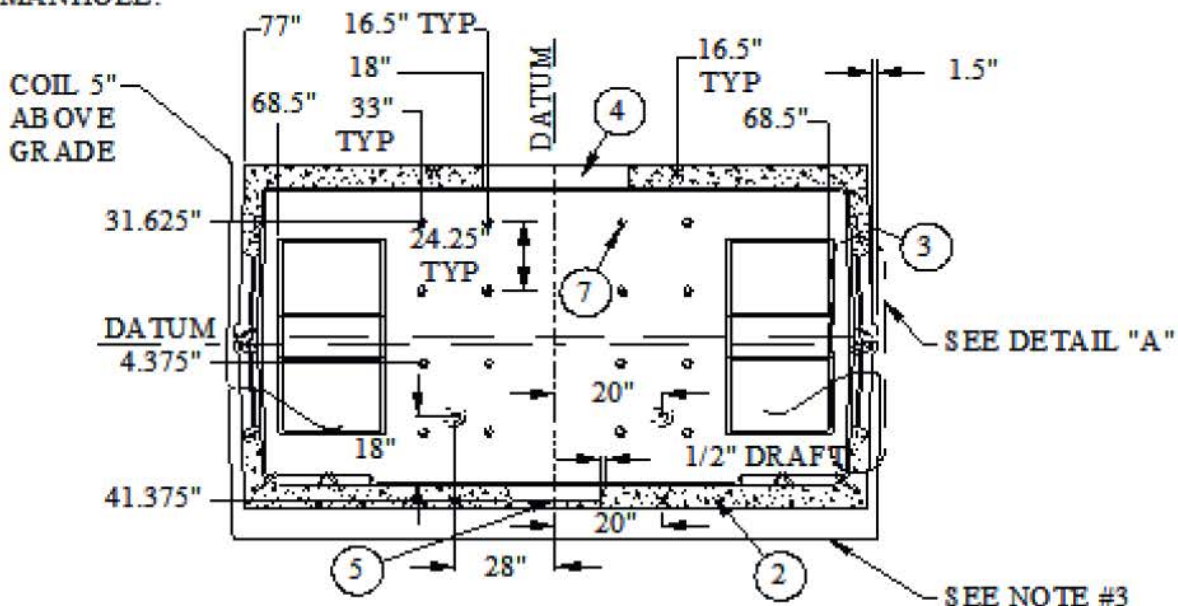


PLAN VIEW

1458-06-07

NOTES:

1. INSTALL 60'-70' OF 1/8 TINNED BARE CU WIRE IN BOTTOM OF EXCAVATION. BRING WIRE THROUGH A HOLE DRILLED AT OPPOSITE ENDS OF MANHOLE WITH 3'+/- LEFT IN MANHOLE AT EACH END. EXTEND ON END ABOVE GRADE AS SHOWN.
2. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER BOTTOM OF MANHOLE.



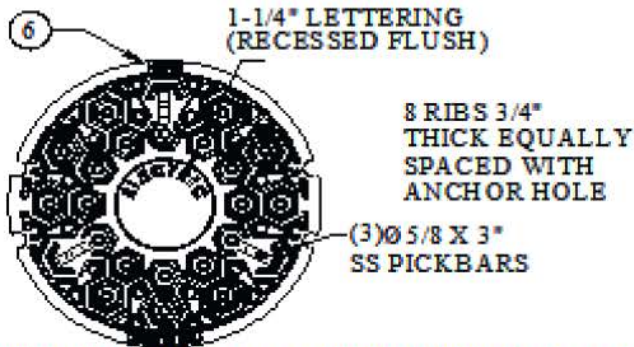
SECTION "A"

6 FT x 12 FT x 7 FT (PART 1 OF 2)

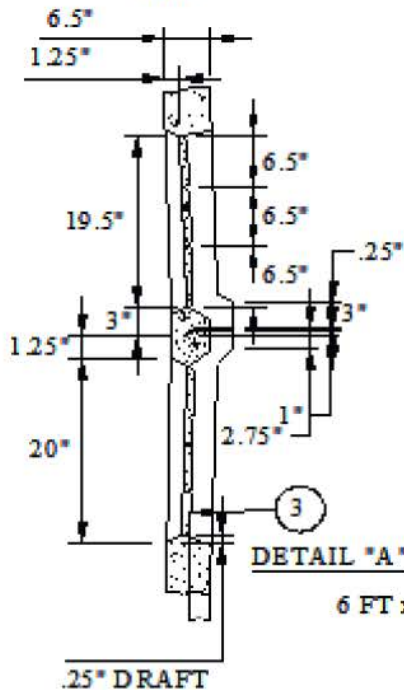
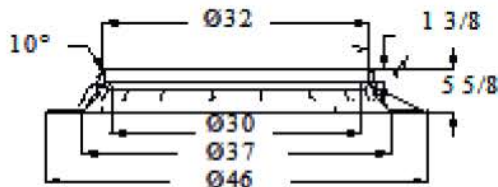
1458-06B MANHOLES 6-FT X 12-FT

NOTES:

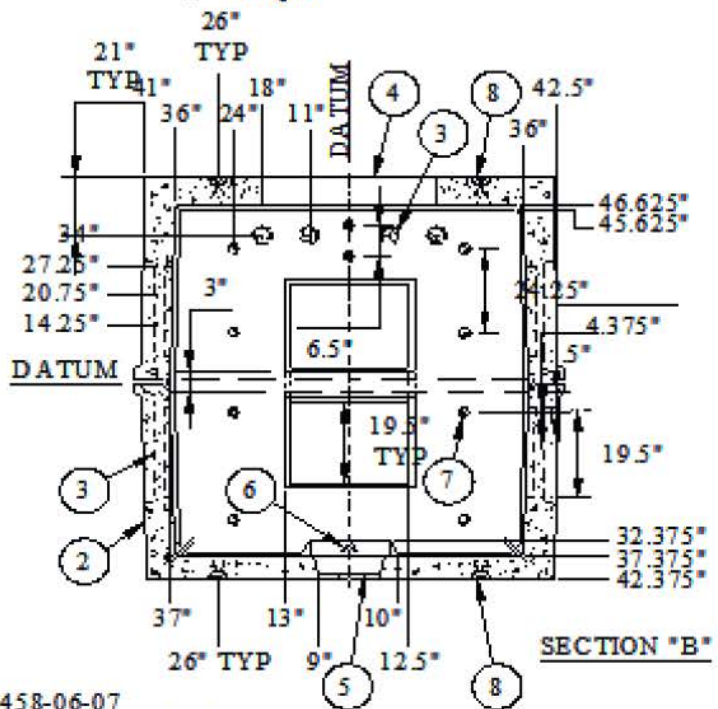
1. MIN. EXCAVATION SIZE: 8'-10"x14'-10"x DEPTH REQ'D.
2. DESIGNED FOR H-20 BRIDGE LOADING
3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN BOTTOM OF EXCAVATION. BRING WIRE THROUGH THE SEAM AT OPPOSITE ENDS OF MANHOLE WITH 3'± LEFT IN MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE AS SHOWN.
4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.
5. BOTTOM 6" OF SUMP TO BE FILLED WITH PEA GRAVEL.
6. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER BOTTOM OF MANHOLE.




COVER-M55A DUCTILE STEEL MARKED ELECTRIC
NOTE: RING AND COVER SEAT TO BE MACHINED.
BOTH DUCTILE IRON M55 30"



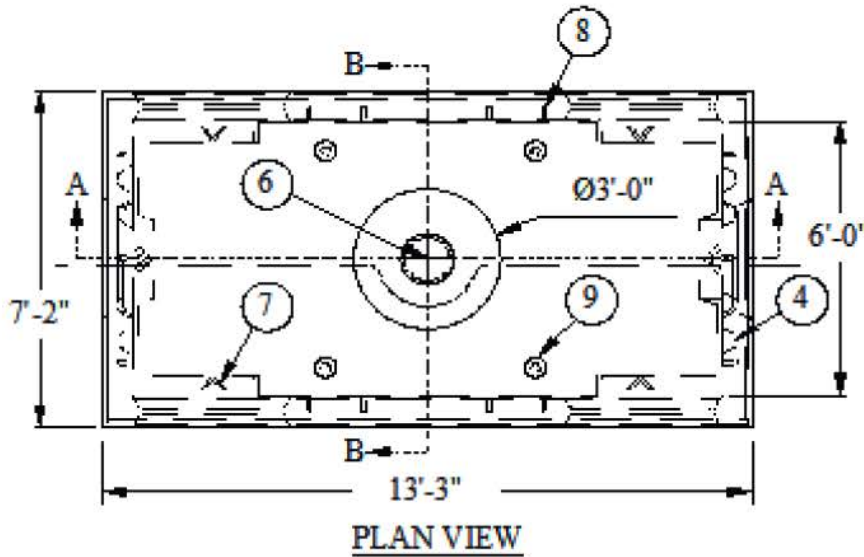
- 1 TOP SECTION WEIGHT APPROX. 14,000 LBS.
- 2 BOTTOM SECTION WEIGHT APPROX. 13,500 LBS.
- 3 KNOCKOUTS AS REQ'D.
- 4 36" MANHOLE OPENING
- 5 SUMP 13"Ø BY 4" DEEP (1) REQ'D. (SEE NOTE 4 & 5 BELOW)
- 6 PULL IRONS (6) REQ'D.
- 7 INSERT 1/2"Ø (52) REQ'D.
- 8 2-TON RISS HANDLING ANCHOR (12) REQ'D.



1458-06-07
6 FT x 12 FT x 7 FT (PART 2 OF 2)

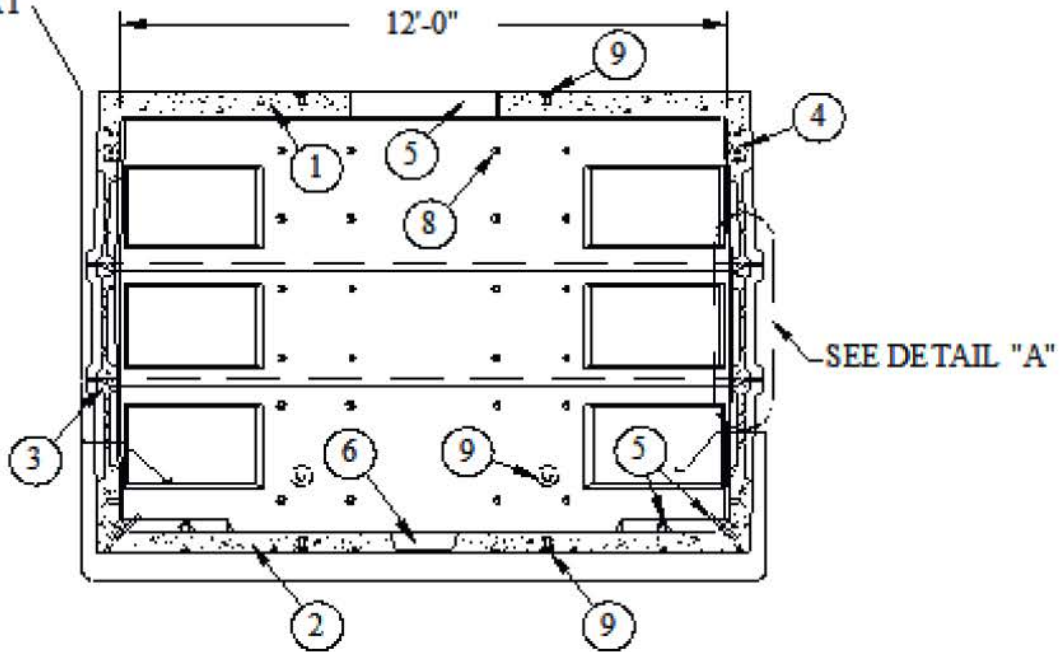
1458-07A	CIVIL MANHOLES MANHOLES 6-FT X 12-FT W/CENTER SECTION	
Sheet 3 of 6		
11/01		Rev. Date

1458-07A MANHOLES 6-FT X 12-FT W/CENTER SECTION




COIL 5" ABOVE
GRADE FOR
CONNECTION TO
GROUND MAT

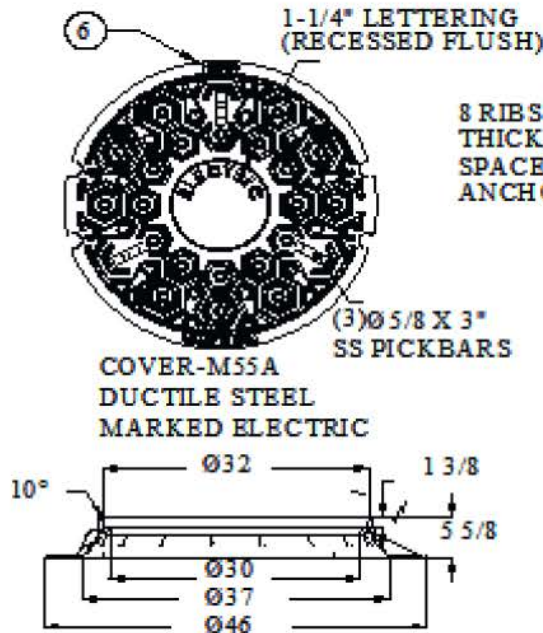
1458-06-07



6 FT x 12 FT WITH CENTER SECTION FT (PART 1 OF 2)

	CIVIL MANHOLES MANHOLES 6-FT X 12-FT W/CENTER SECTION	1458-07B
	Rev. Date	Sheet 4 of 6 11/01

1458-07B MANHOLES 6-FT X 12-FT W/CENTER SECTION



NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"

- 1 TOP SECTION WEIGHT 13,955 LBS.
- 2 BOTTOM SECTION WEIGHT 13,212 LBS.
- 3 CENTER SECTION
- 4 VENT KNOCKOUT 6"Ø (8) REQ'D.
- 5 36" MANHOLE OPENING
- 6 SUMP 13"Ø BY 4" DEEP (1) REQ'D. (SEE NOTE 4 & 5 BELOW)
- 7 PULL IRONS (6) REQ'D.
- 8 INSERT 1/2"Ø (76) REQ'D.
- 9 2-TON RISS HANDLING ANCHOR (12) REQ'D.

NOTES:
1. MIN. EXCAVATION SIZE: 8'-10" x 14'-10" x DEPTH REQ'D.

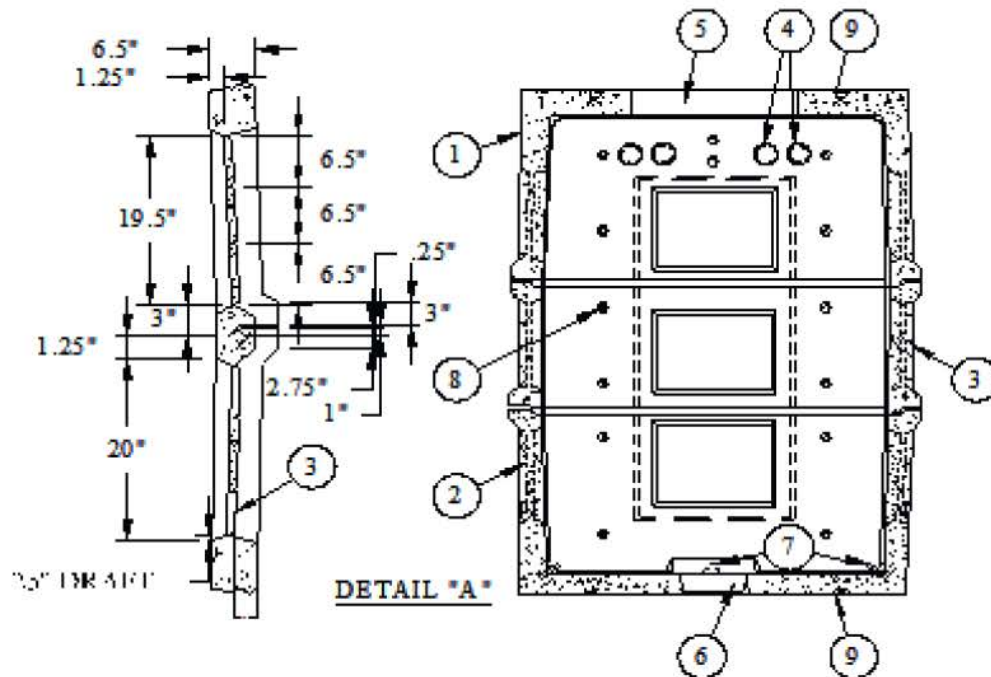
2. DESIGNED FOR H-20 BRIDGE LOADING

3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN BOTTOM OF EXCAVATION. BRING WIRE THROUGH THE SEAM AT OPPOSITE ENDS OF MANHOLE WITH 3"± LEFT IN MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE AS SHOWN.


4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.

5. BOTTOM 6" OF SUMP TO BE FILLED WITH PEA GRAVEL.

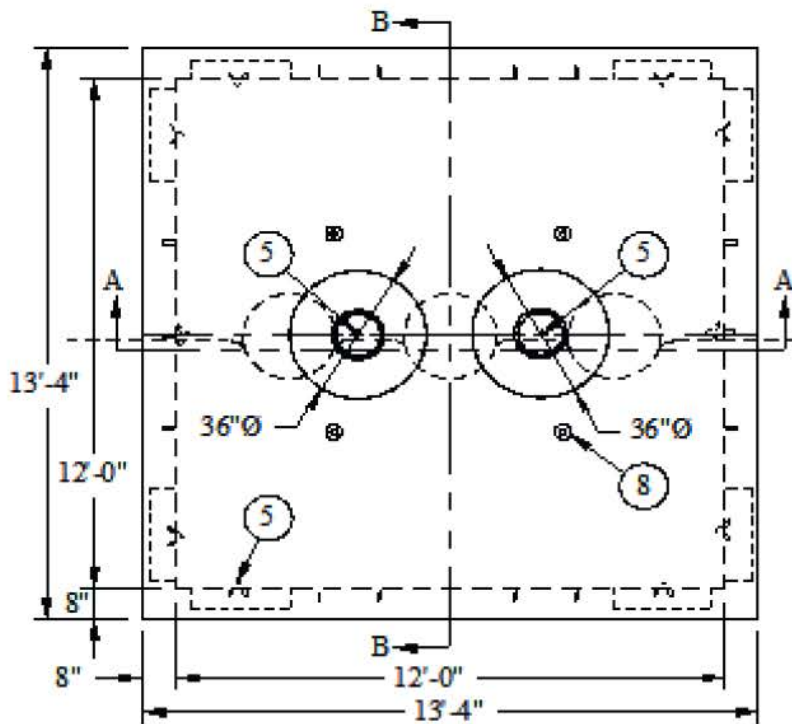
6. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER BOTTOM OF MANHOLE.



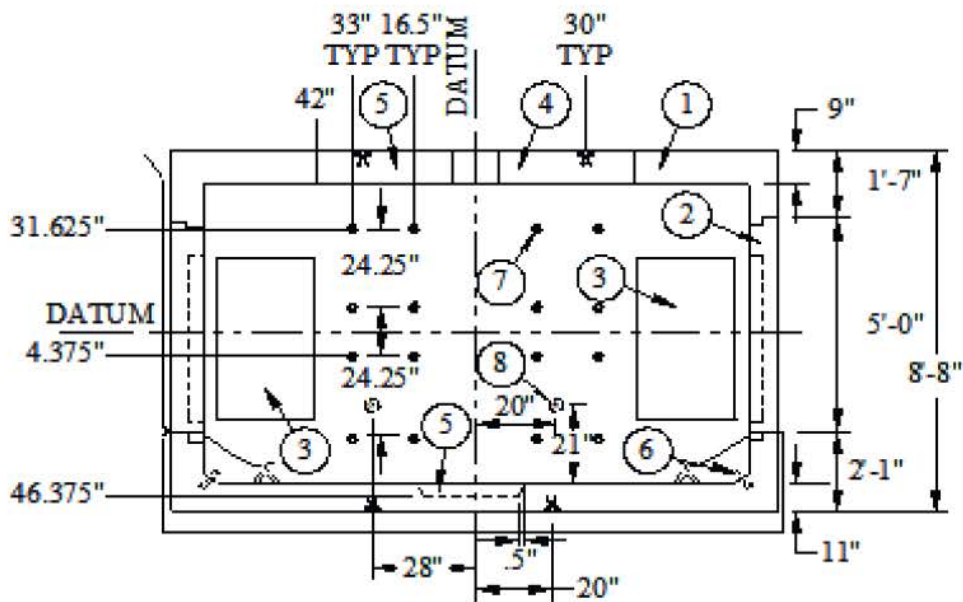
1458-07-07
6 FT x 12 FT WITH CENTER SECTION FT (PART 2 OF 2)

1458-12A	CIVIL MANHOLES MANHOLES 12-FT X 12-FT	
Sheet 1 of 6		
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1458-12A MANHOLES 12-FT X 12-FT




PLAN VIEW

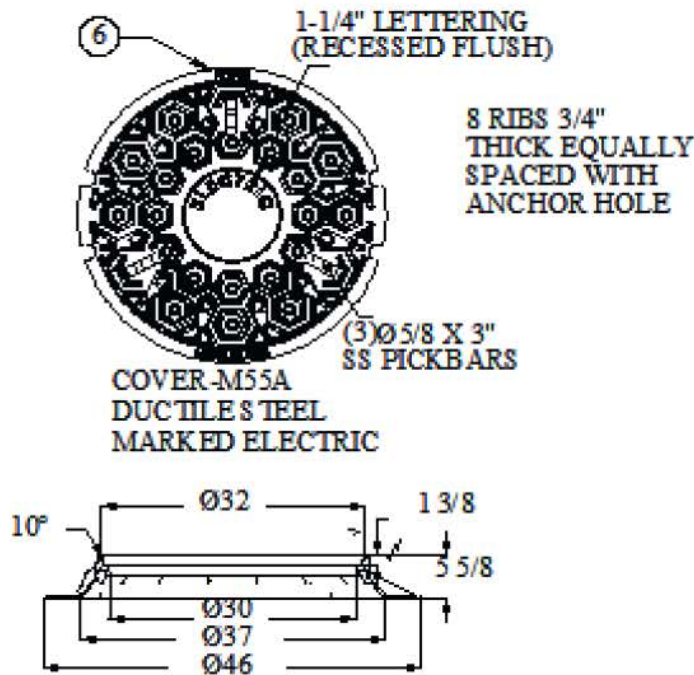


SECTION "A"

1458-12-07
 12 FT x 12 FT x 7 FT (PART 1 OF 2)

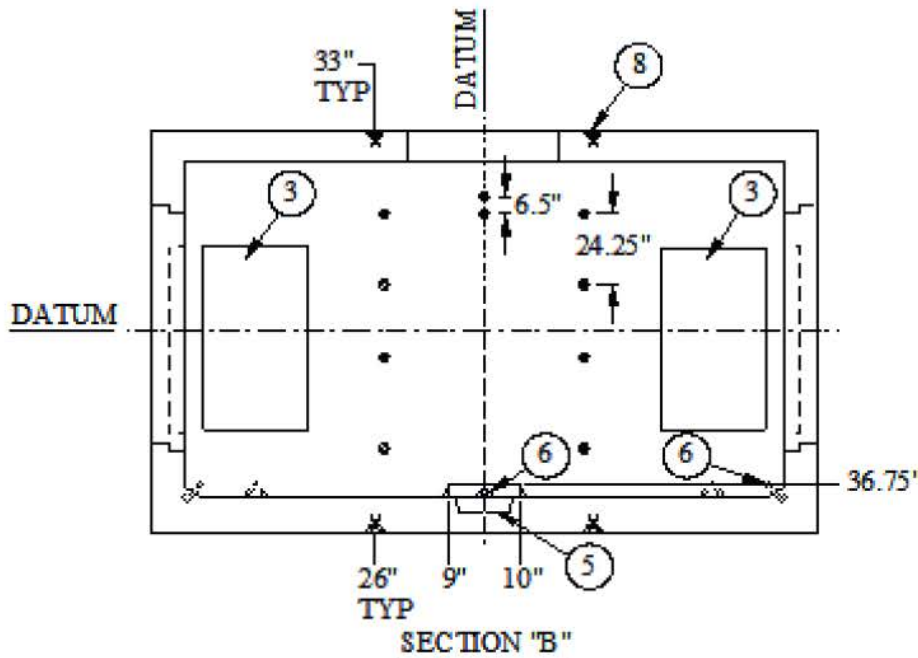
 Rev. Date	CIVIL MANHOLES MANHOLES 12-FT X 12-FT	1458-12B Sheet 2 of 6
		11/01

1458-12B MANHOLES 12-FT X 12-FT



NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"

- ① TOP SECTION WEIGHT APPROX. 26,000 LBS. EACH
- ② BOTTOM SECTION WEIGHT APPROX. 30,000 LBS.
- ③ KNOCKOUTS AS REQ'D.
- ④ 36" MANHOLE OPENING
- ⑤ SUMP 13"Ø BY 4" DEEP (1) REQ'D. (SEE NOTE 4 & 5 BELOW)
- ⑥ PULL IRONS (8) REQ'D.
- ⑦ INSERT 1/2"Ø (64) REQ'D.
- ⑧ 2-TON RISS HANDLING ANCHOR (12) REQ'D.
- ⑨ MANHOLE NECK SHALL BE A MAXIMUM OF 24"



NOTES:
1. MIN. EXCAVATION SIZE: 14'-10"x14'-10"x DEPTH REQ'D.


2. DESIGNED FOR H-20 BRIDGE LOADING

3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN BOTTOM OF EXCAVATION. BRING WIRE THROUGH A HOLE DRILLED AT OPPOSITE ENDS OF MANHOLE WITH 3± LEFT IN MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE AS SHOWN.

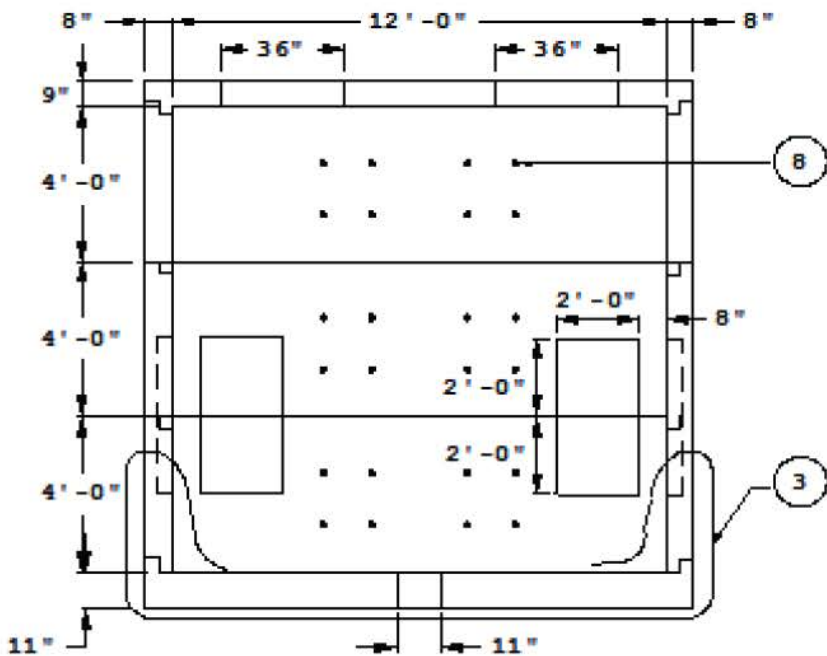
4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.

5. BOTTOM 6" OF SUMP TO BE FILLED WITH PEA GRAVEL.

1458-12-07
12 FT x 12 FT x 7 FT (PART 2 OF 2)

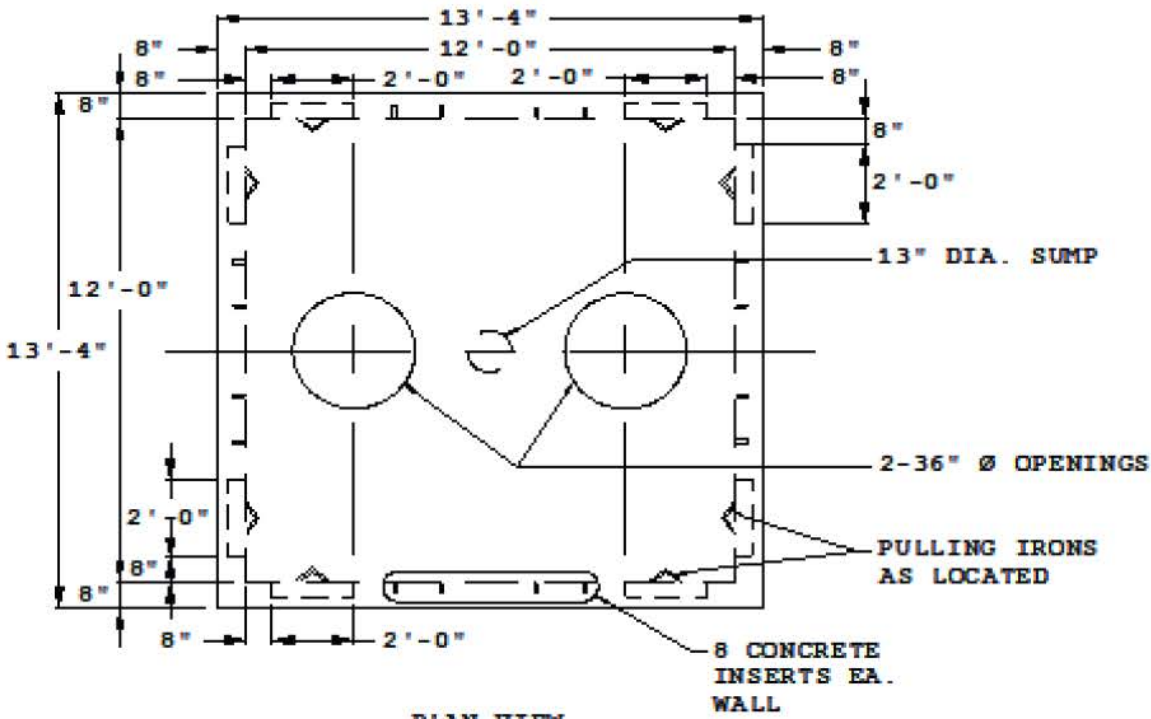
1458-13A	CIVIL MANHOLES MANHOLES 12-FT X 12-FT	
Sheet 3 of 6		
11/01		Rev. Date

1458-13A MANHOLES 12-FT X 12-FT




ELEVATION

*1458-13-12

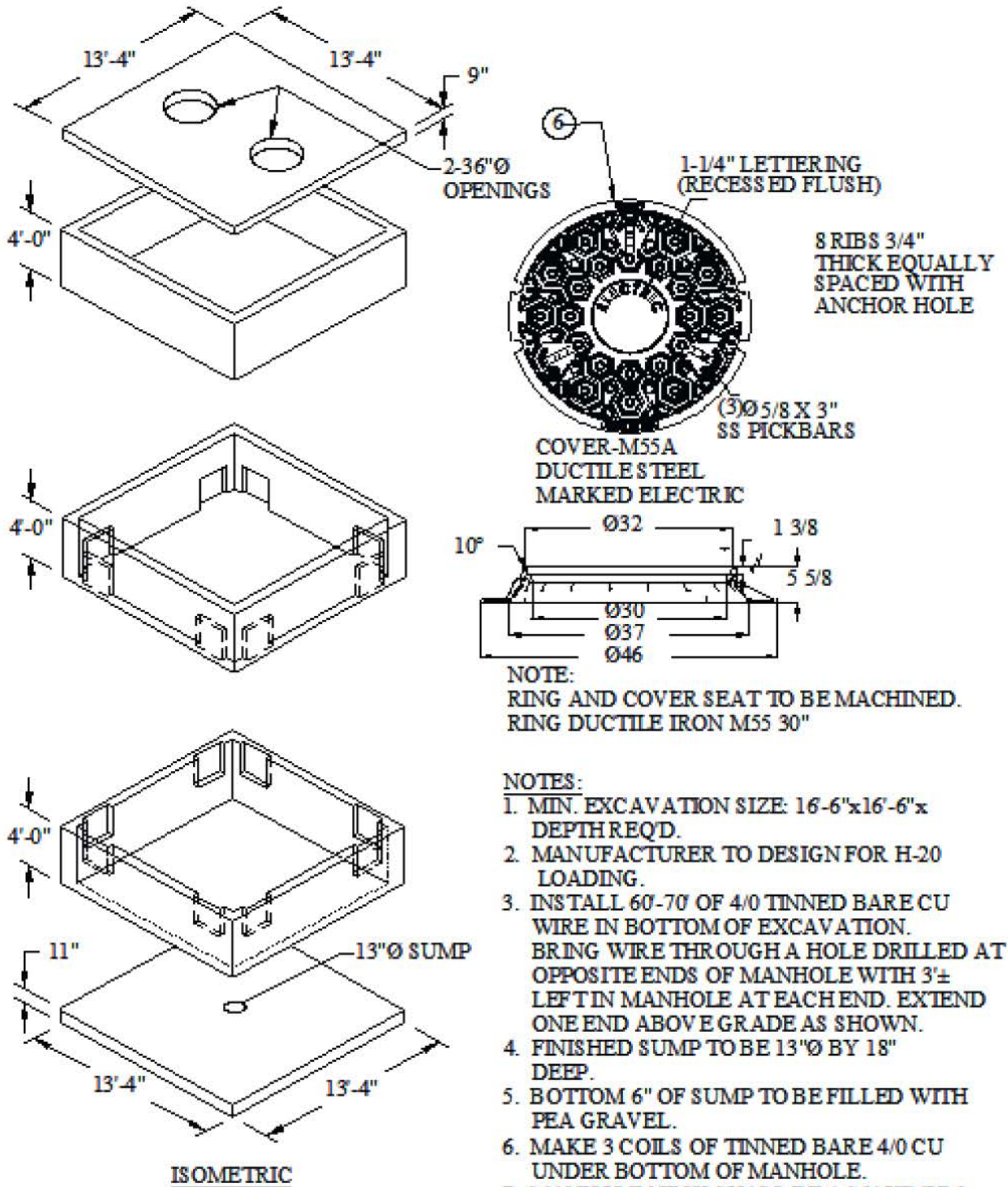


PLAN VIEW

12 FT x 12 FT x 12 FT (PART 1 OF 2)

	CIVIL MANHOLES MANHOLES 12-FT X 12-FT	1458-13B
	Rev. Date	


1458-13B MANHOLES 12-FT X 12-FT



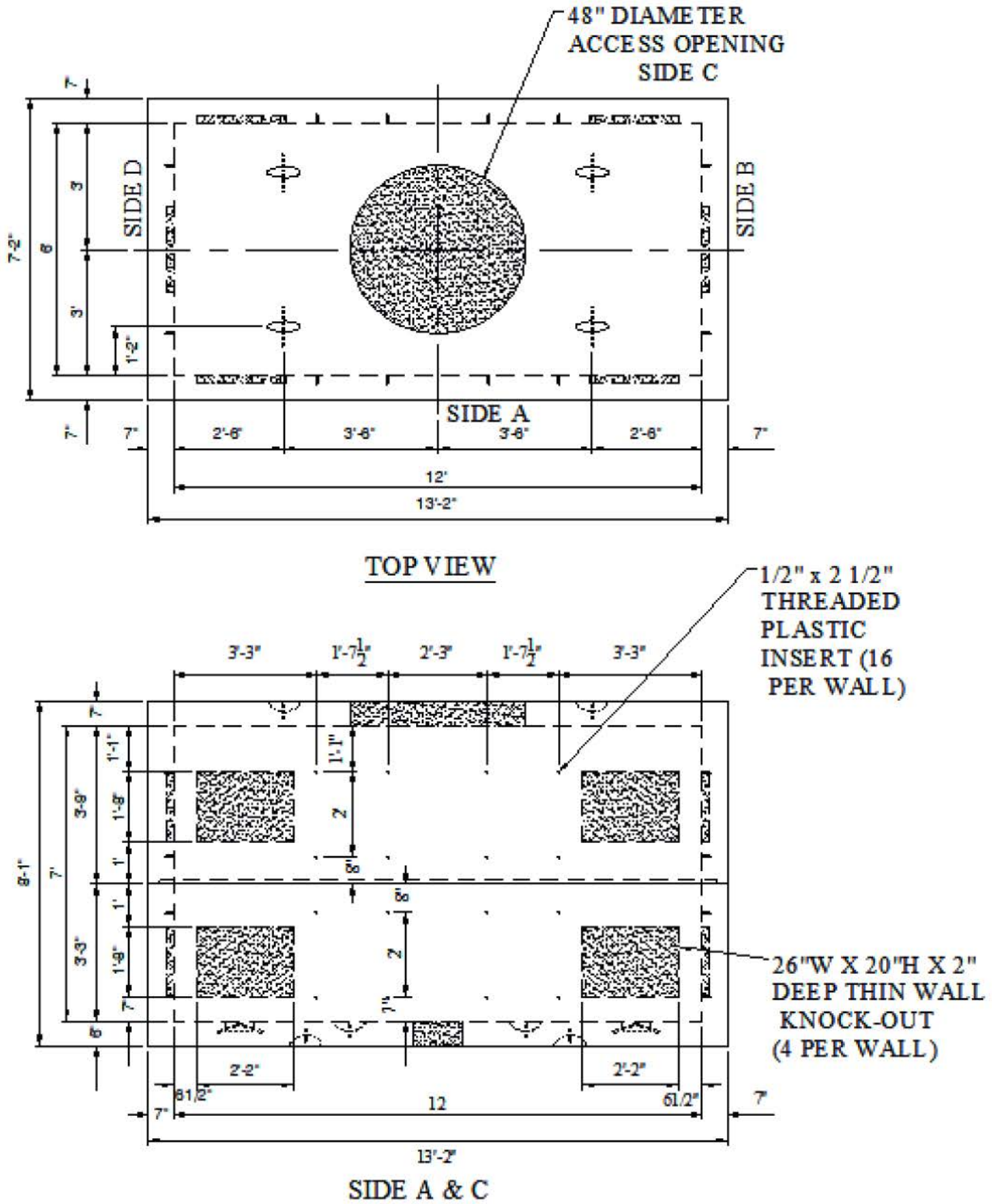
NOTE:
 RING AND COVER SEAT TO BE MACHINED.
 RING DUCTILE IRON M55 30"

- NOTES:**
1. MIN. EXCAVATION SIZE: 16'-6"x16'-6"x DEPTH REQ'D.
 2. MANUFACTURER TO DESIGN FOR H-20 LOADING.
 3. INSTALL 60-70' OF 4/0 TINNED BARE CU WIRE IN BOTTOM OF EXCAVATION. BRING WIRE THROUGH A HOLE DRILLED AT OPPOSITE ENDS OF MANHOLE WITH 3± LEFT IN MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE AS SHOWN.
 4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.
 5. BOTTOM 6" OF SUMP TO BE FILLED WITH PEA GRAVEL.
 6. MAKE 3 COILS OF TINNED BARE 4/0 CU UNDER BOTTOM OF MANHOLE.
 7. MANHOLE NECK SHALL BE A MAXIMUM 30".

1458-13-12
 12 FT x 12 FT x 12 FT (PART 2 OF 2)

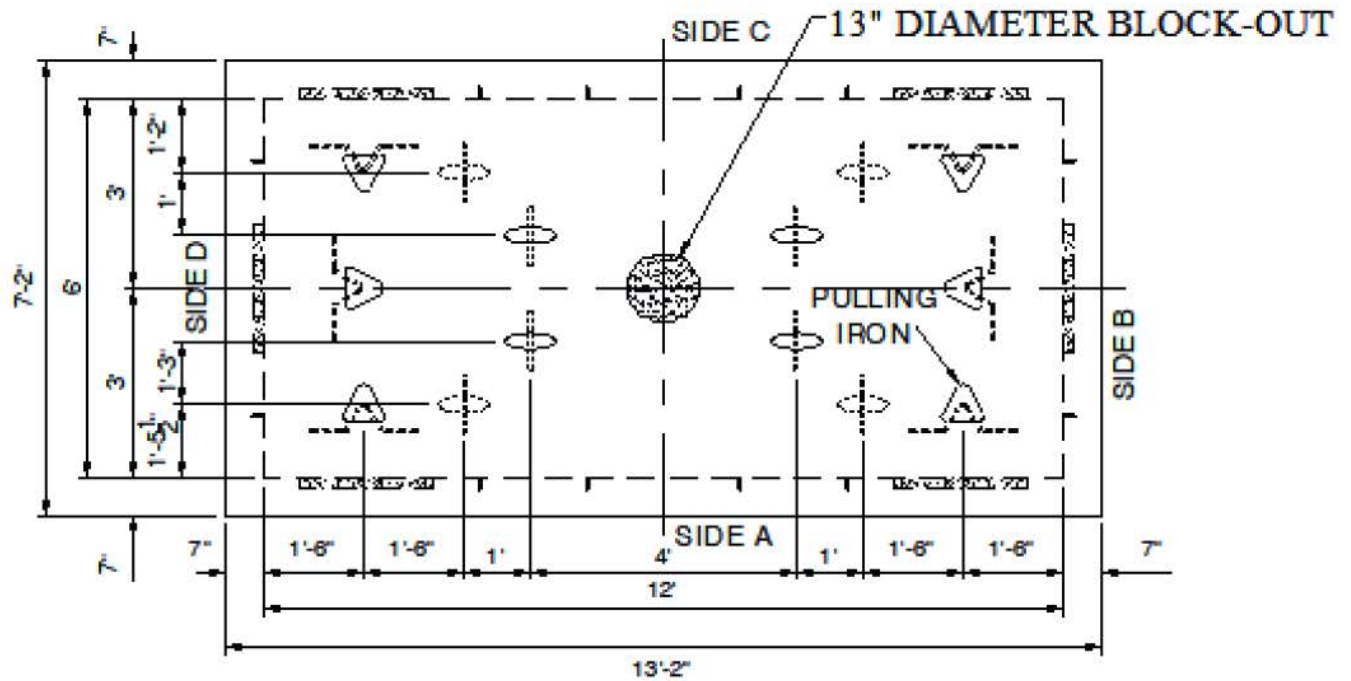
1458-18A	CIVIL MANHOLES MANHOLES 6-FT X 12-FT - 5FT MAX BURIAL DEPTH	 Rev. Date
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1458-18A MANHOLES 6-FT X 12-FT - 5FT MAX BURIAL DEPTH

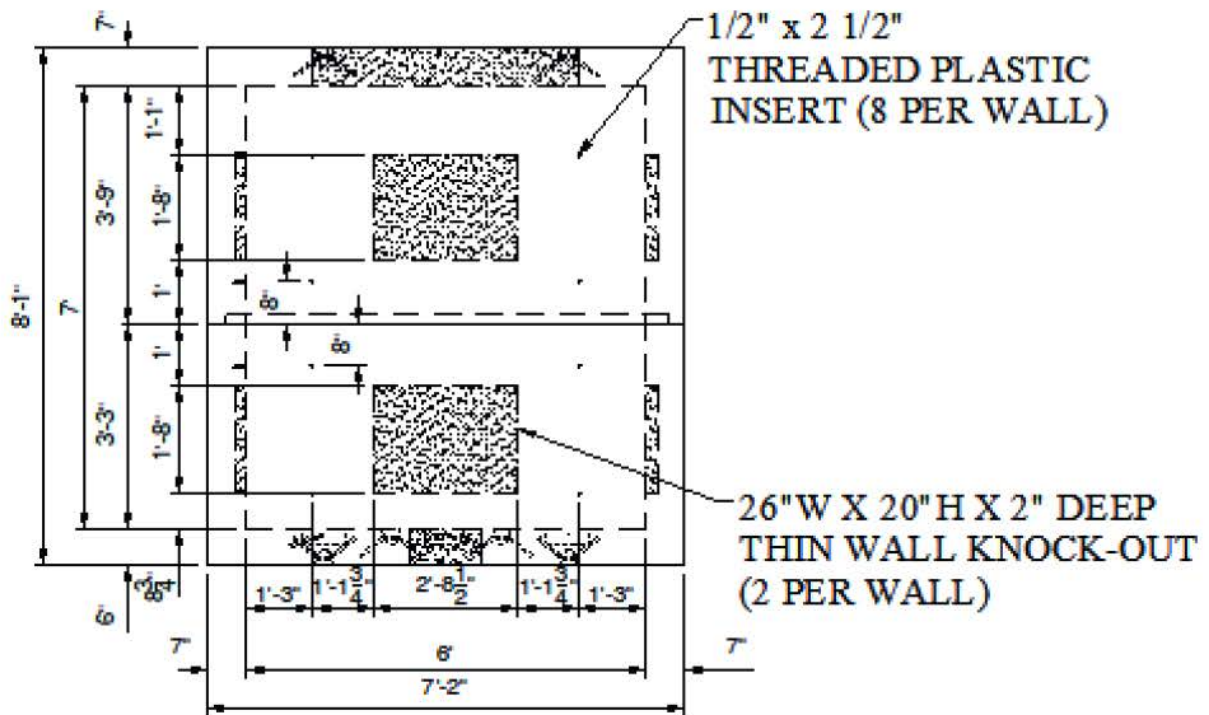


	CIVIL MANHOLES MANHOLES 6-FT X 12-FT – 5FT MAX BURIAL DEPTH	1458-18B
	Rev. Date	Sheet 4 of 6


1458-18B MANHOLES 6-FT X 12-FT – 5FT MAX BURIAL DEPTH



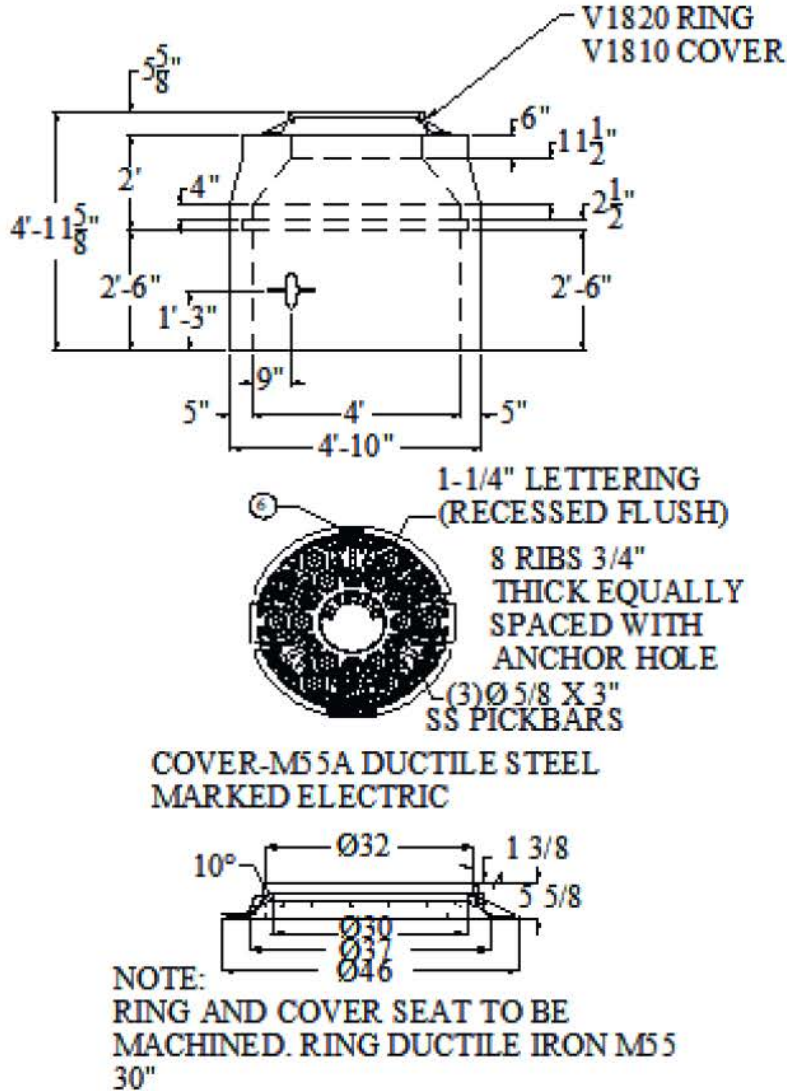
BOTTOM VIEW



SIDE B & D


1458-18C	CIVIL MANHOLES MANHOLES 6-FT X 12-FT - 5FT MAX BURIAL DEPTH	
Sheet 4 of 6		
11/01		Rev. Date

1458-18C MANHOLES 6-FT X 12-FT - 5FT MAX BURIAL DEPTH

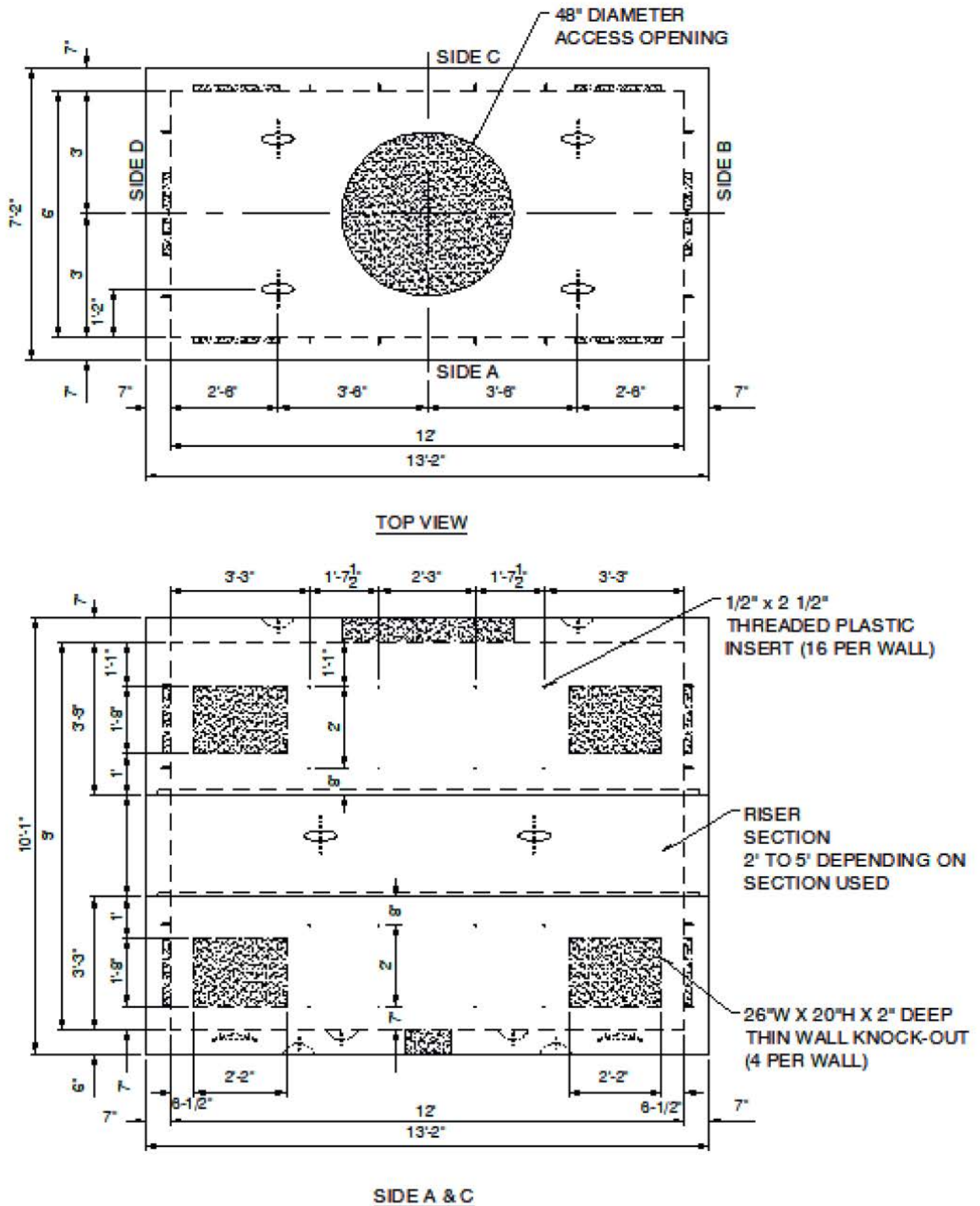



NOTES:

1. RATED FOR USE WITH A BURIAL DEPTH NO GREATER THAN THAN 5 FEET BELOW GRADE TO THE TOP OF THE VAULT.
2. DESIGN FOR HS-20 LOADING.
3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN THE BOTTOM OF THE EXCAVATION. BRING THE WIRE THROUGH THE SEAM AT OPPOSITE ENDS OF THE MANHOLE WITH 3' ± LEFT IN THE MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE.
4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.
5. BOTTOM 6" OF SUMP TO BE FILLED WITH PEA GRAVEL.
6. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER THE BOTTOM OF THE MANHOLE.

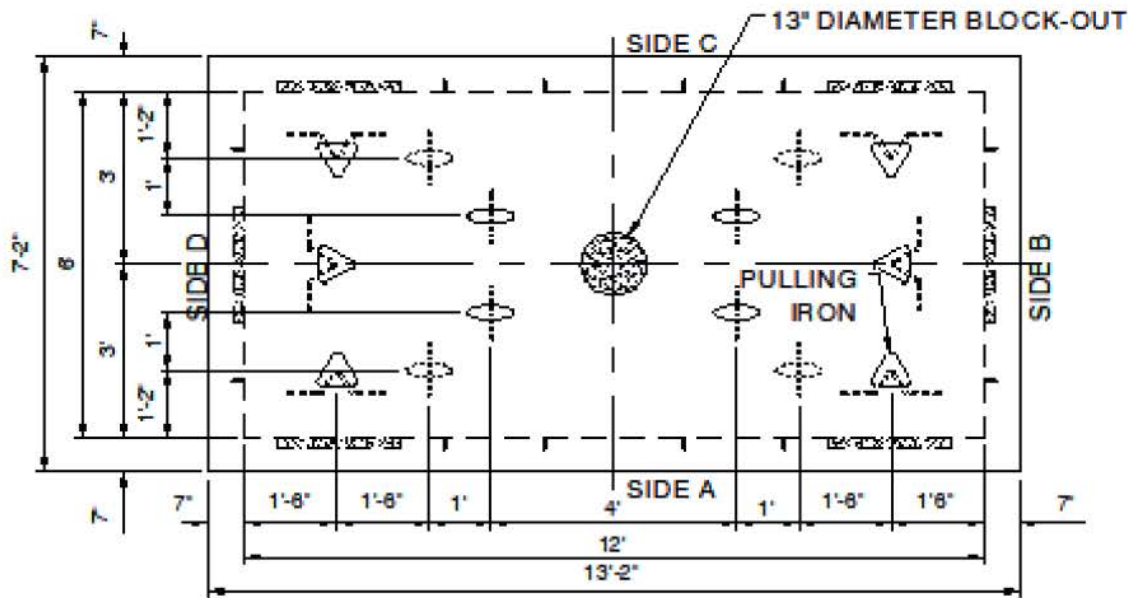
	CIVIL MANHOLES	1458-19A
	MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL DEPTH	Sheet 4 of 6 11/01
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1458-19A MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL DEPTH

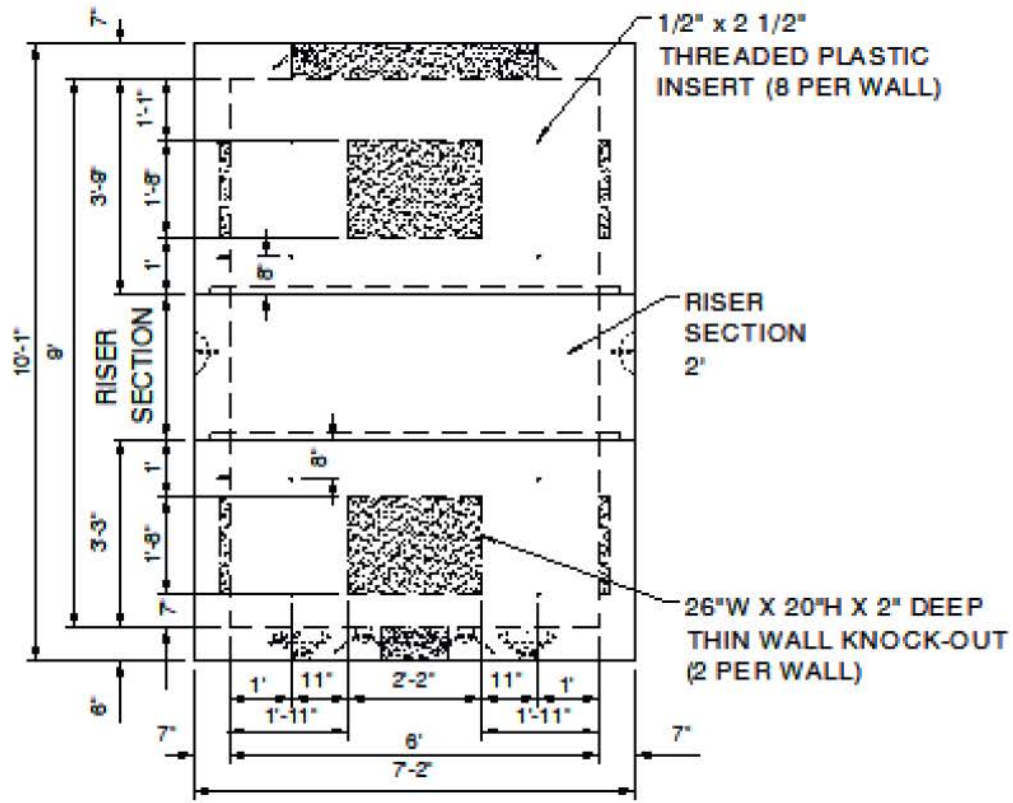


1458-19B	CIVIL MANHOLES MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL	 AUSTIN ENERGY
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1458-19B MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL DEPTH



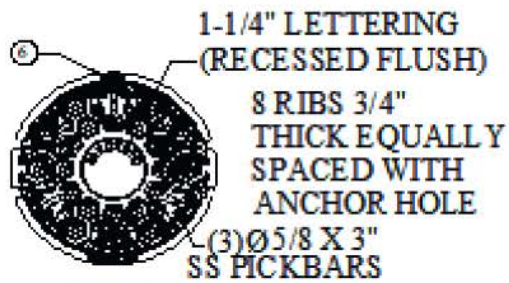
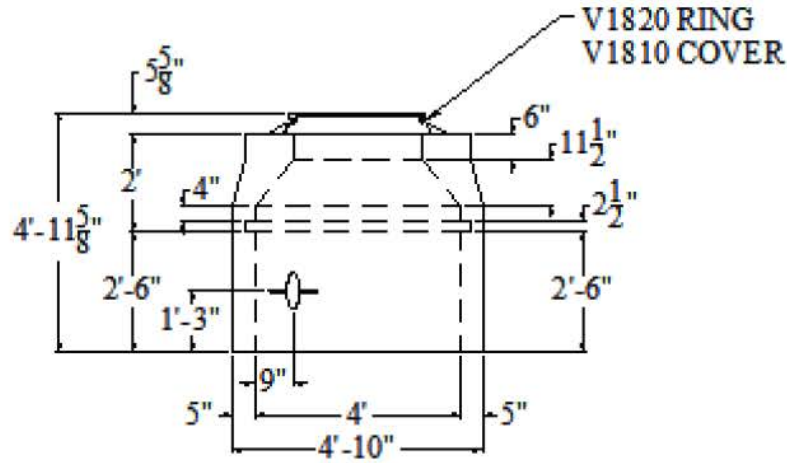
BOTTOM VIEW



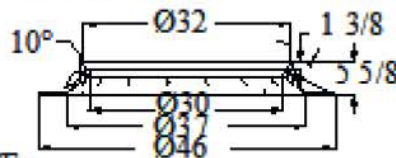
SIDE B & D

	CIVIL MANHOLES	1458-19C
	MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL DEPTH	Sheet 4 of 6 11/01

1458-19C MANHOLES 6-FT X 12-FT W/CS - 5FT MAX BURIAL DEPTH




**COVER-M55A DUCTILE STEEL
MARKED ELECTRIC**



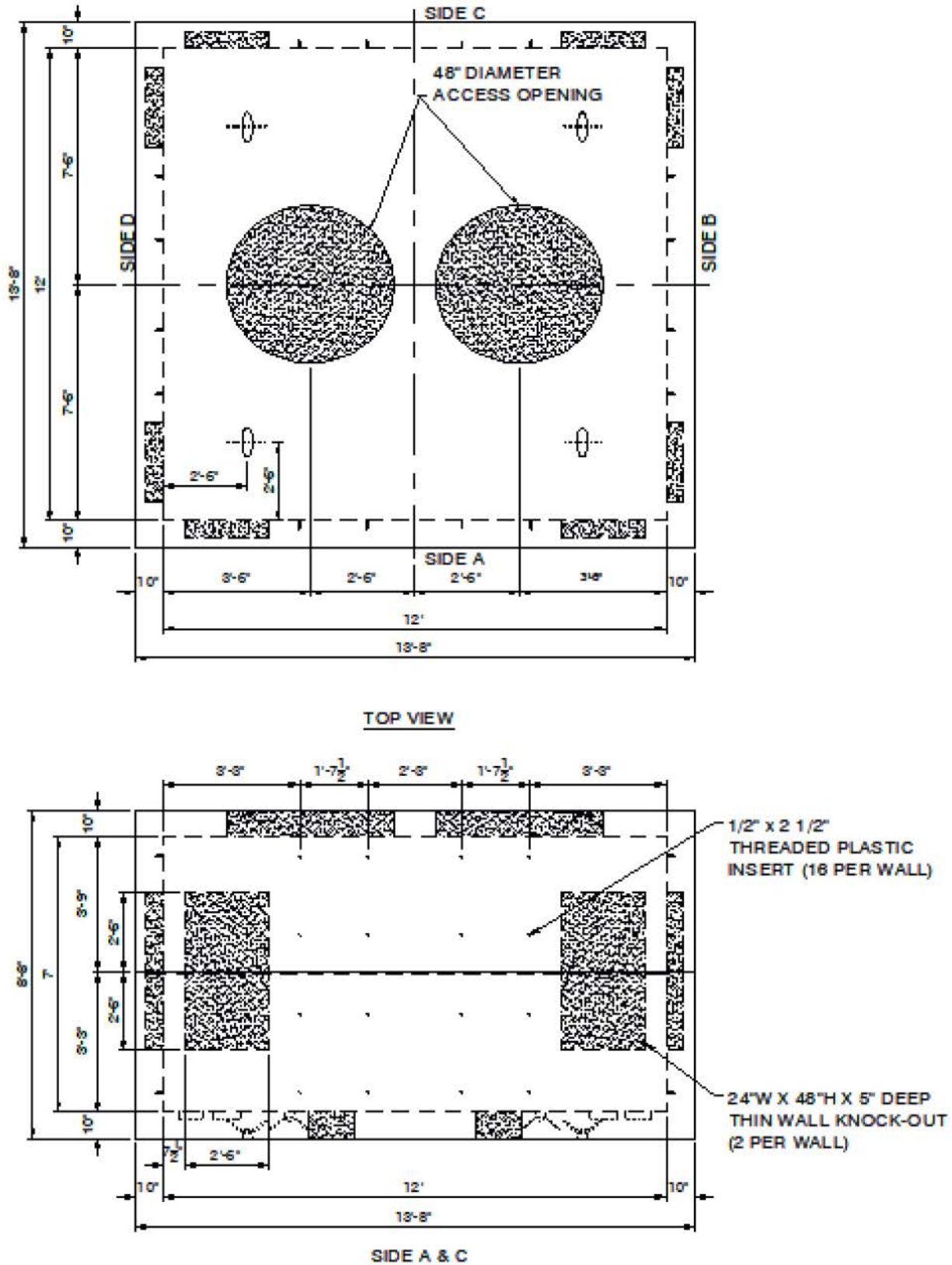
**NOTE:
RING AND COVER SEAT TO BE
MACHINED. RING DUCTILE IRON M55
30"**

NOTES:

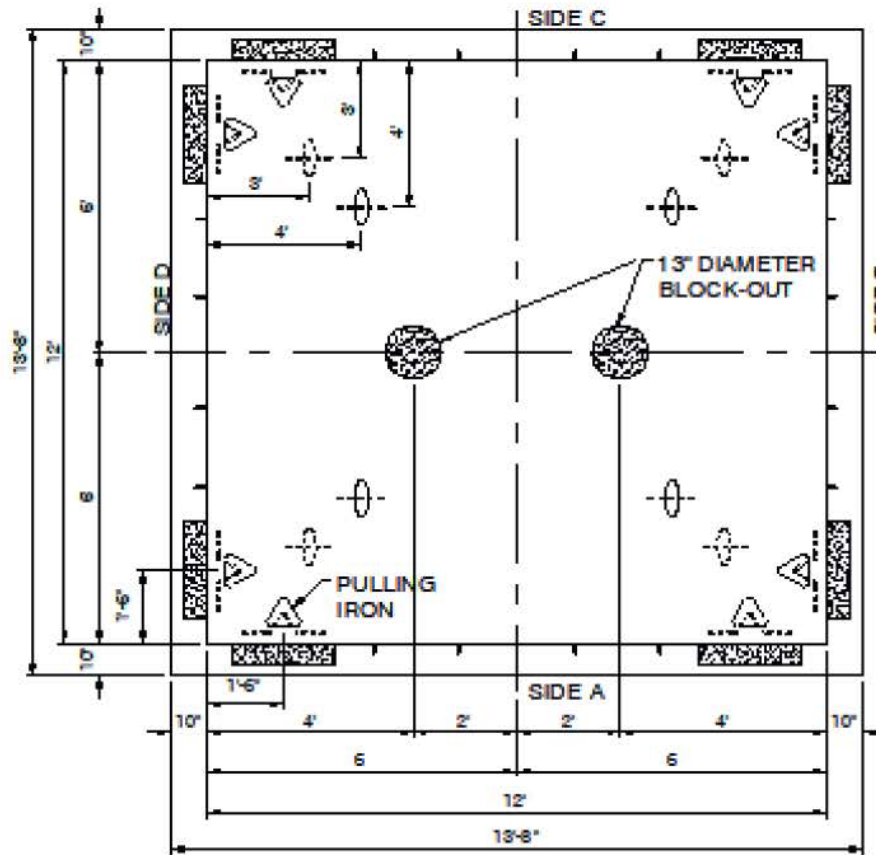
1. RATED FOR USE WITH A BURIAL DEPTH NO GREATER THAN THAN 5 FEET BELOW GRADE TO THE TOP OF THE VAULT.
2. DESIGN FOR HS-20 LOADING.
3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN THE BOTTOM OF THE EXCAVATION. BRING THE WIRE THROUGH THE SEAM AT OPPOSITE ENDS OF THE MANHOLE WITH 3' ± LEFT IN THE MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE.
4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.
5. BOTTOM 6" OF SUMP TO BE FILLED WITH PE A GRAVEL.
6. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER THE BOTTOM OF THE MANHOLE.

1458-24A	CIVIL MANHOLES MANHOLES 12-FT X 12-FT – 5FT MAX BURIAL DEPTH	 Rev. Date
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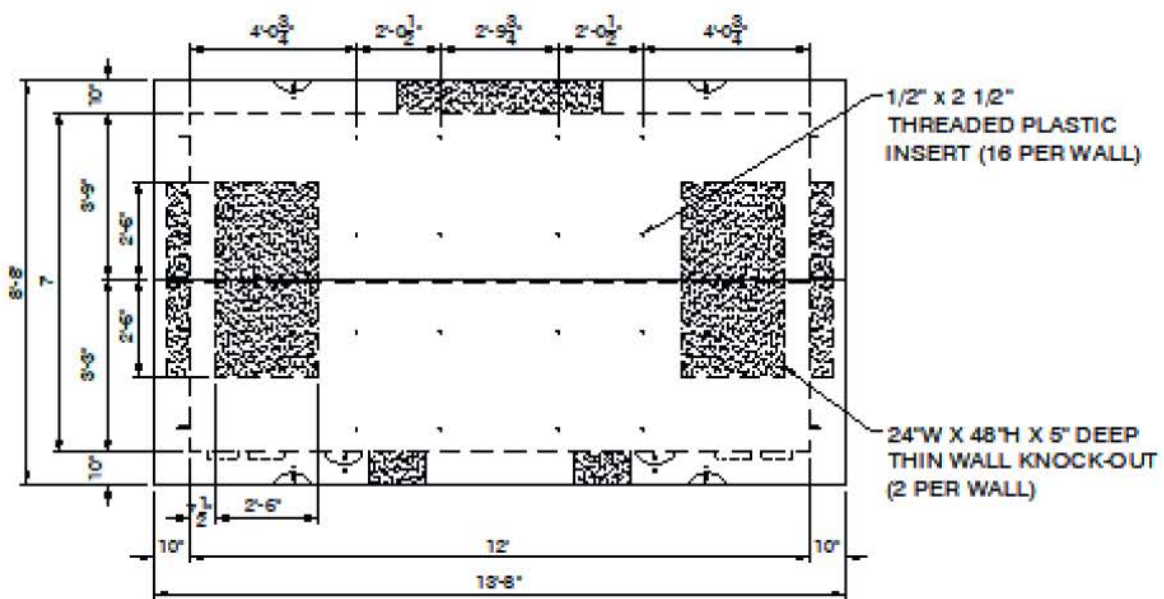
1458-24A MANHOLES 12-FT X 12-FT – 5FT MAX BURIAL DEPTH




1458-24B MANHOLES 12-FT X 12-FT – 5FT MAX BURIAL DEPTH



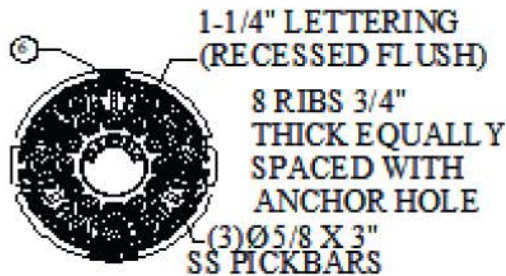
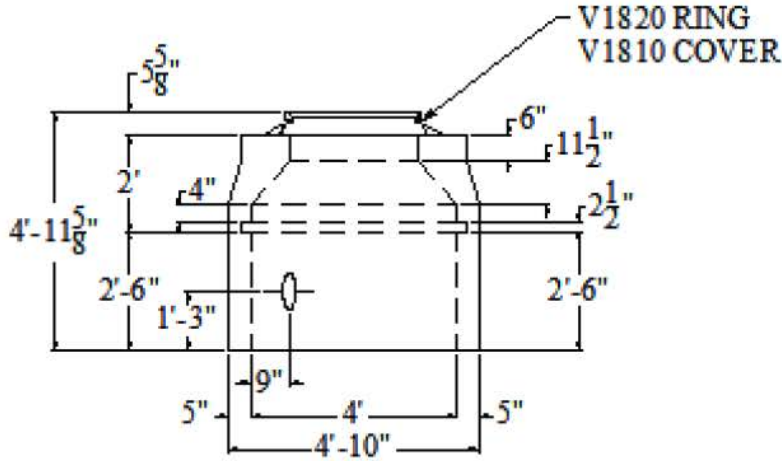
BOTTOM VIEW



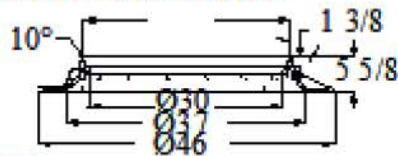
SIDE B & D

1458-24C	CIVIL MANHOLES MANHOLES 12-FT X 12-FT – 5FT MAX BURIAL DEPTH	
Sheet 4 of 6		
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1458-24C MANHOLES 12-FT X 12-FT – 5FT MAX BURIAL DEPTH




COVER-M55A DUCTILE STEEL
MARKED ELECTRIC



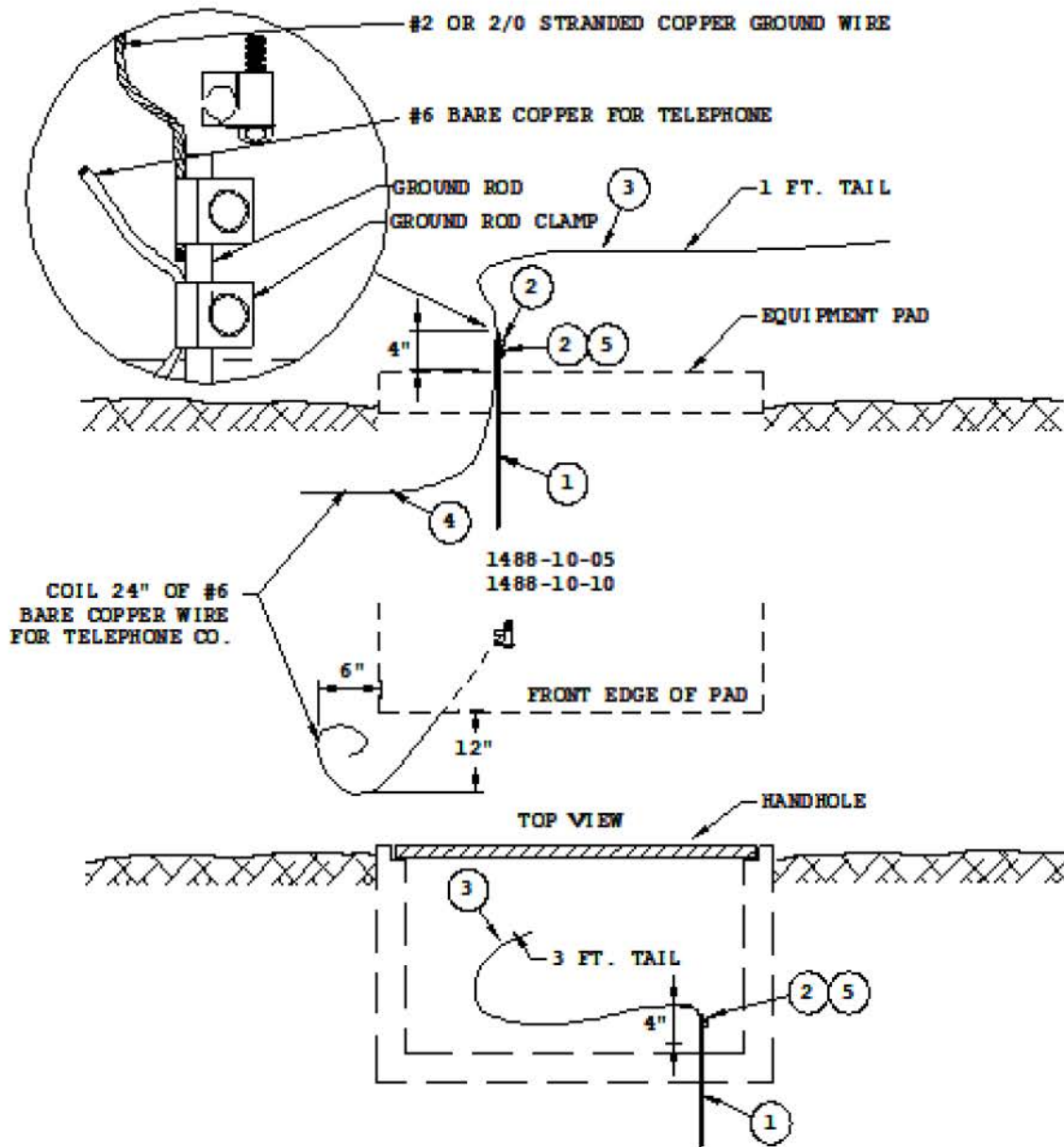
NOTE:
RING AND COVER SEAT TO BE MACHINED. RING DUCTILE IRON M55 30"

NOTES:

1. RATED FOR USE WITH A BURIAL DEPTH NO GREATER THAN 5 FEET BELOW GRADE TO THE TOP OF THE VAULT.
2. DESIGN FOR HS-20 LOADING.
3. INSTALL 60'-70' OF 4/0 TINNED BARE CU WIRE IN THE BOTTOM OF THE EXCAVATION. BRING THE WIRE THROUGH THE SEAM AT OPPOSITE ENDS OF THE MANHOLE WITH 3' ± LEFT IN THE MANHOLE AT EACH END. EXTEND ONE END ABOVE GRADE.
4. FINISHED SUMP TO BE 13"Ø BY 18" DEEP.
5. BOTTOM 6" OF SUMP TO BE FILLED WITH PE A GRAVEL.
6. MAKE 3 COILS OF 4/0 TINNED BARE CU WIRE UNDER THE BOTTOM OF THE MANHOLE.


 Rev. Date	CIVIL MANHOLES GROUNDING IN SOFT SOIL	1488-10
		Sheet 1 of 2
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1488-10 GROUNDING IN SOFT SOIL

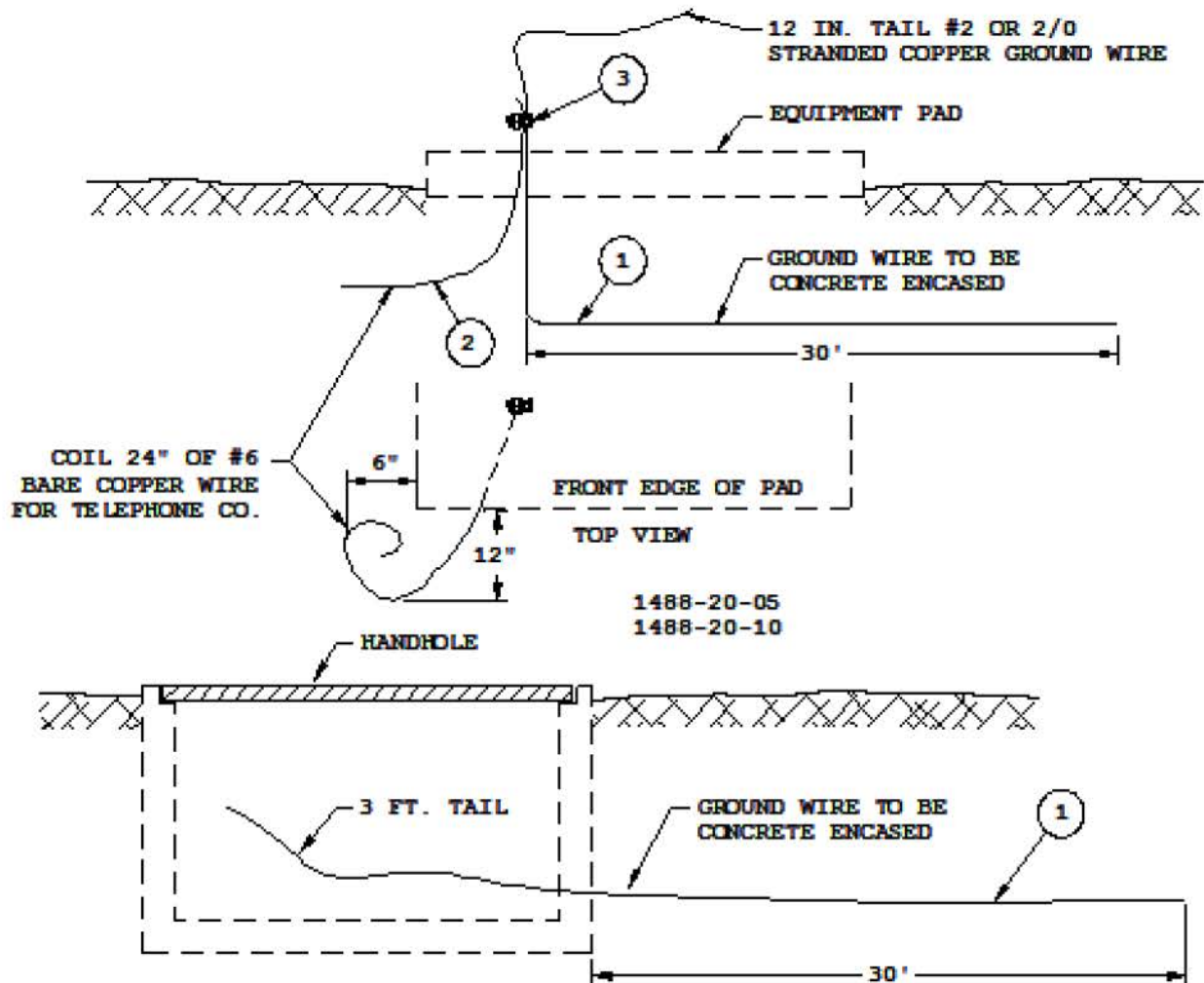


NOTES:

1. WHEN INSTALLED IN SOFT SOIL, EQUIP ALL PAD-MOUNTED EQUIPMENT LOCATIONS AND SUBSTRUCTURES WITH PRIMARY CABLE SPLICES, WITH AT LEAST ONE GROUND ROD.
2. EXACT LOCATIONS OF GROUND RODS AND GROUND WIRES ARE SPECIFIED IN EQUIPMENT PAD DETAILS. ALL 3-PHASE TRANSFORMER AND SWITCHGEAR PADS, REQUIRE THE INSTALLATION OF TWO GROUND RODS, AT THE LOCATIONS SHOWN ON PAD DETAILS.
3. THE GROUND WIRE SHALL BE #2 STRANDED SOFT-DRAWN TINNED CU, AT ALL TRANSFORMER PADS AND HANDHOLES, WITH 500 KCMIL AND 750 KCMIL SPLICES.
4. INSTALL #6 BARE CU GROUND FOR TELEPHONE CO AT ALL PAD-MOUNTED TRANSFORMER LOCATIONS AS SHOWN.
5. GROUND RESISTANCE SHOULD BE LESS THAN 25 OHMS AT THE TIME OF INSTALLATION.
6. IF ONE DRIVEN GROUND ROD IS NOT ADEQUATE TO ACHIEVE 25 OHMS OF GROUND RESISTANCE, AE MAY ASK FOR ADDITIONAL GROUND RODS OR BURIED ENCASED ELECTRODE GROUND INSTALLATION AS SHOWN ON PAGE 1488-20.


	CIVIL MANHOLES GROUNDING IN ROCKY SOIL	1488-20
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1488-20 GROUNDING IN ROCKY SOIL




NOTES:

1. ALL PAD-MOUNTED EQUIPMENT LOCATIONS AND SUBSTRUCTURES WITH PRIMARY CABLE SPLICES SHALL BE EQUIPPED WITH A BURIED ENCASED ELECTRODE GROUND, WHEN INSTALLED IN ROCKY SOIL OR WHERE THE INSTALLATION OF A GROUND ROD AS SHOWN ON PAGE 1488-10 IS DEEMED ADEQUATE.
2. LOCATIONS OF GROUND RODS AND GROUND WIRES ARE SPECIFIED IN EQUIPMENT PAD DETAILS.
3. THE GROUND WIRE SHALL BE #2 STRANDED SOFT-DRAWN TINNED CU FOR TRANSFORMER PADS AND SECTIONALIZING CABINETS.
4. THE BURIED ELECTRODE SHALL BE #2 STRANDED SOFT-DRAWN TINNED CU AT ALL TRANSFORMER PADS AND HANDHOLES WITH 1/0 AWG AL SPLICES.
5. THE BURIED ELECTRODE SHALL BE INSTALLED SURROUNDED BY A 2-IN. CONCRETE ENVELOPE. IN URD INSTALLATIONS, WHERE SAND IS THE PREFERRED BACKFILL MATERIAL, THE PORTION OF THE CONDUIT WITH THE ENCASED ELECTRODE SHALL BE CONCRETE ENCASED.
6. FOR TRANSFORMER INSTALLATIONS, THE ENCASED ELECTRODE SHALL ALWAYS BE INSTALLED IN THE PRIMARY CONDUIT TRENCH.

	CIVIL MANHOLES GROUNDING IN ROCKY SOIL	1488-20
		Sheet 3 of 3
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Sheet 1 of 1		
Rev: 04/24/20		

2015

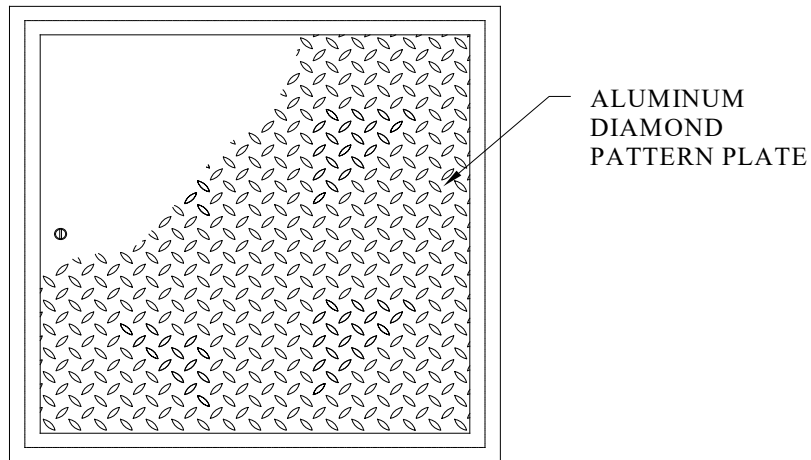
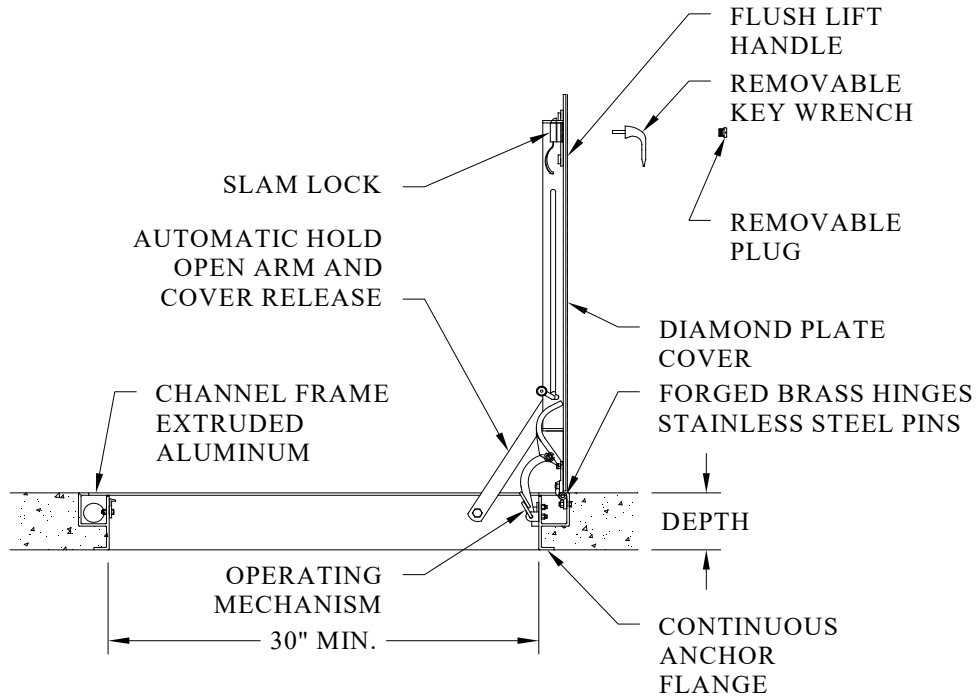
NETWORK VAULT ACCESSORIES

CONTAINS

- 2015-08 TRANSFORMER VAULT HORIZONTAL DOOR**
- 2015-10 PERSONNEL ENTRANCE LADDER**
- 2015-12 ASSIST RAIL ASSY**
- 2015-20 VENTILATION CABINET**
- 2015-25 VAULT FANS W/ACCESSORIES**

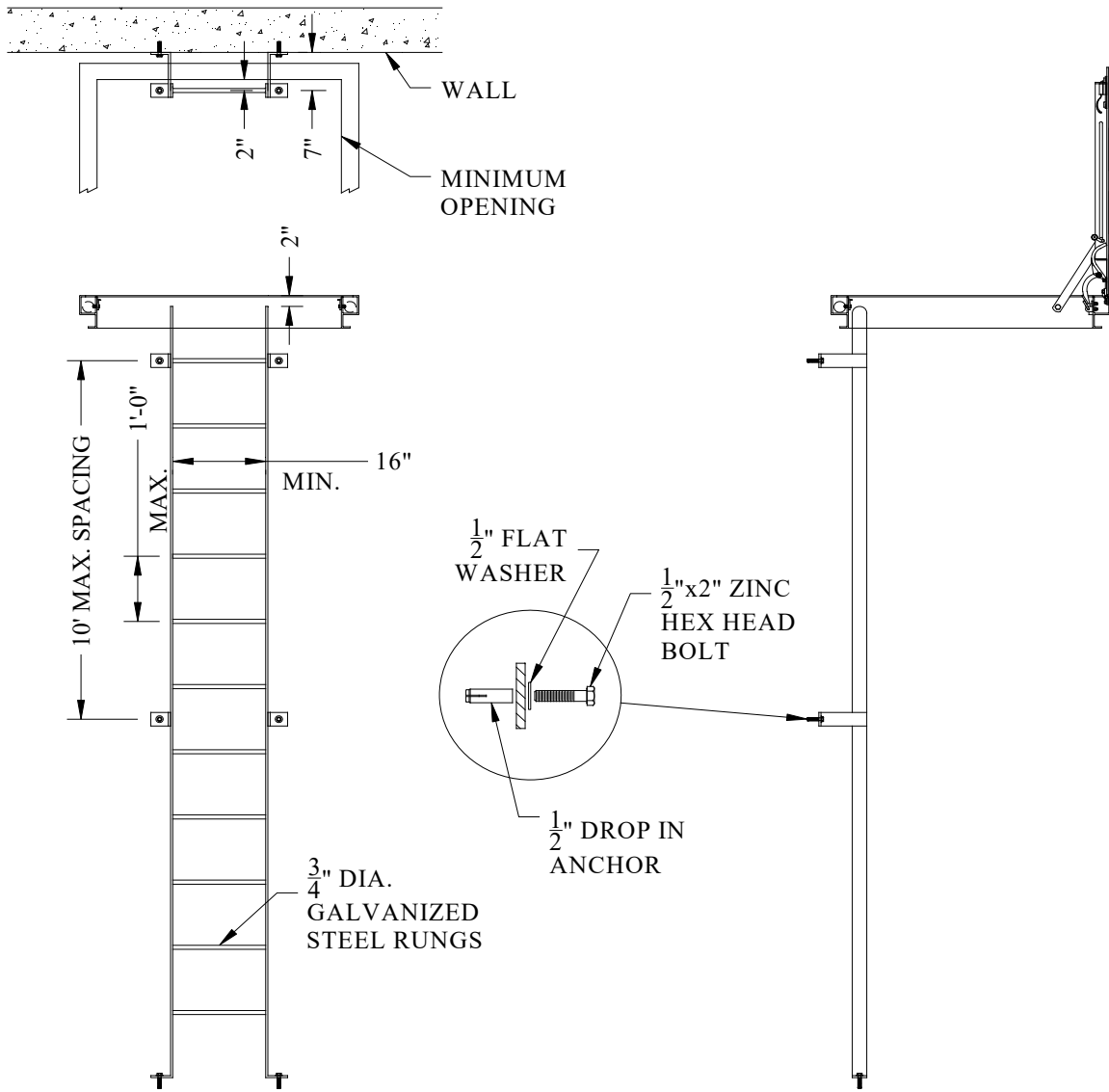
2015-08
Sheet 1 of 2
Rev: 04/24/20

NETWORK SYSTEMS
VAULT ACCESSORIES
TRANSFORMER VAULT, HORIZONTAL DOOR



2015-08-02


NETWORK SYSTEMS
 VAULT ACCESSORIES
 PERSONNEL ENTRANCE LADDER



NOTES:

1. LADDER TO BE CONSTRUCTED COMPLETELY OF STEEL AND CONFORM TO O.S.H.A. AND A.N.S.I. STANDARDS.
2. REMOVABLE LADDER TO BE INSTALLED IF LOCATED UNDER LIFT OUT PANELS.

2015-10-12

2015-10	NETWORK SYSTEMS VAULT ACCESSORIES PERSONNEL ENTRANCE LADDER	
Sheet 2 of 2		
Rev. 04/24/20		

CU

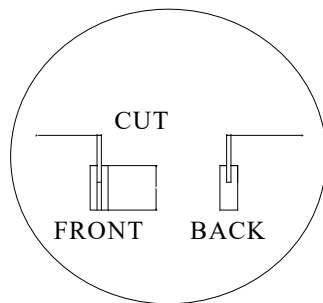
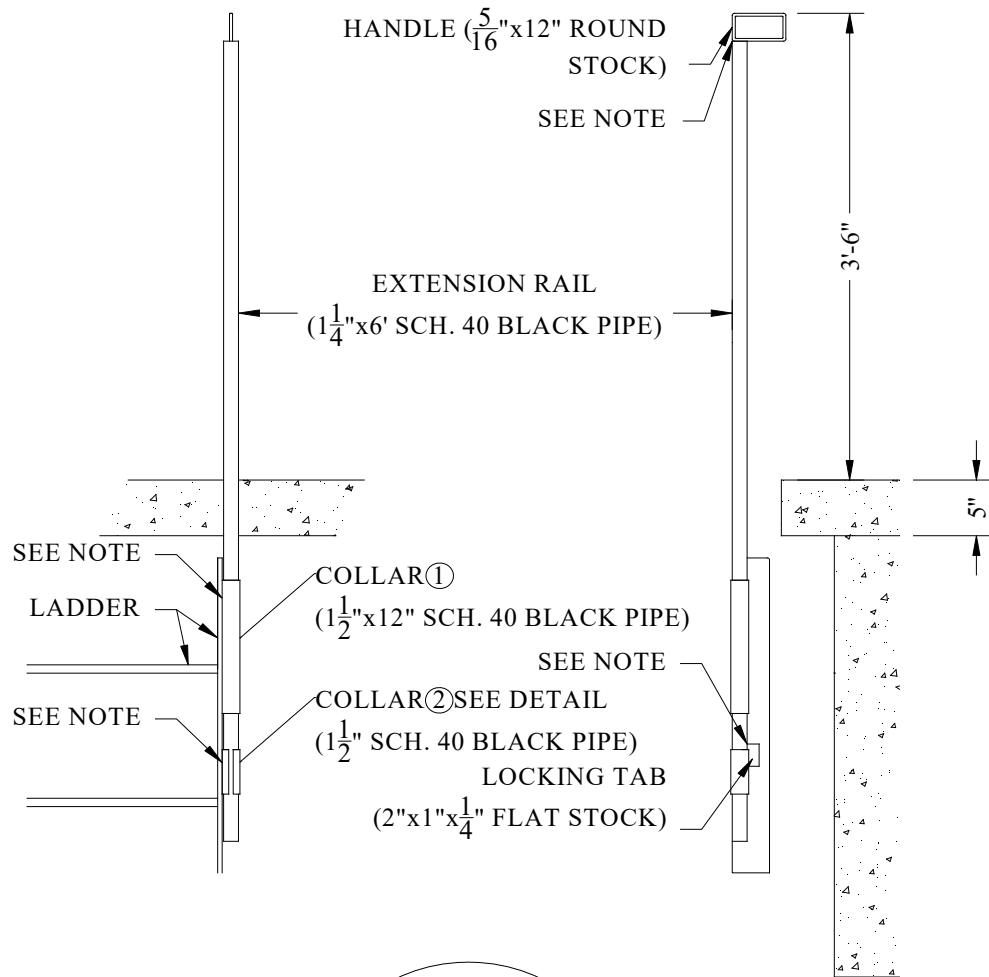
CU-ID	CU-REF	CU-DESCRIPTION
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LADDPERNENTVLTS	20151012	LADDER PERS ENTRANCE FOR SUBGRADE VLTS
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000017933	LADDER PERSONNEL ENTRANCE FOR SUBGRADE VAULTS	1 EA	20151012

2015-12
Sheet 1 of 2
Rev: 04/24/20

NETWORK SYSTEMS
VAULT ACCESSORIES
ASSIST RAIL ASSY



COLLAR 2 DETAIL

NOTE:
 ALL WELDING SHALL BE IN ACCORDANCE WITH THE "CODE FOR WELDING IN BUILDING CONSTRUCTION".

2015-12-02

NOTE:
 IN HOUSE BUILT OR MANUFACTURED VERSION OF ASSIST RAIL ACCEPTABLE.

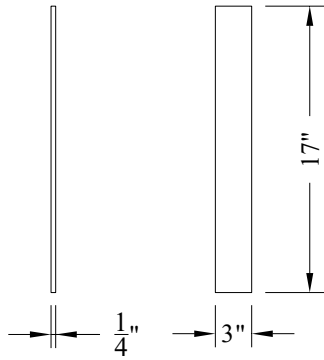
2015-20
Sheet 1 of 2
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NETWORK SYSTEMS
VAULT ACCESSORIES
VENTILATION CABINET



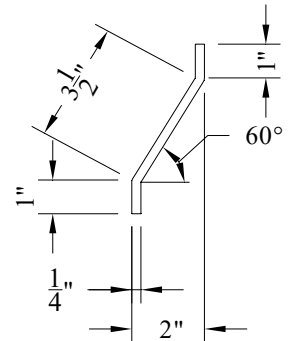
NOTES:

1. CABINET AND LOUVERS FABRICATED WITH $\frac{1}{4}$ " STEEL PLATE.
2. WELD LOUVER PLATES TO CABINET AT ALL POINTS OF CONTACT TO PREVENT WATER LEAKAGE.
3. PAINT WITH RUST PROOF PRIMER, AND ANSI-70 GRAY.

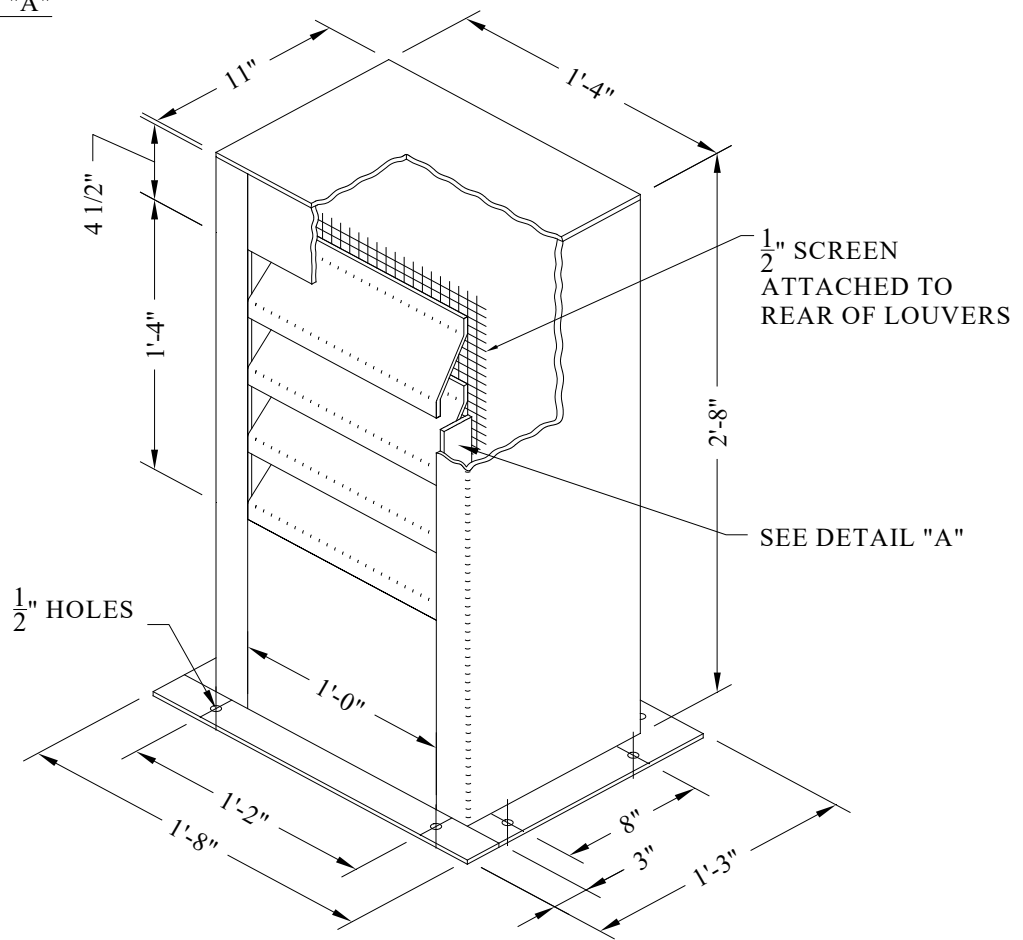


DETAIL "A"

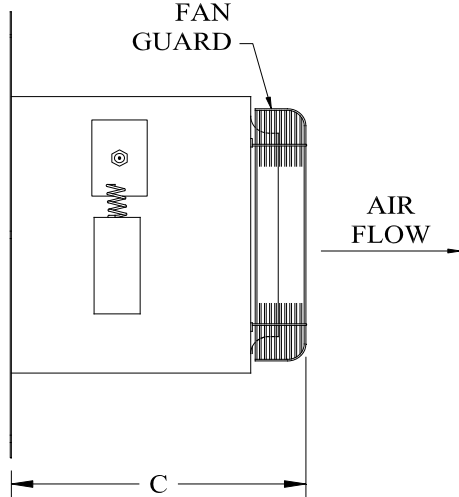
2015-20-02



LOUVER DETAIL



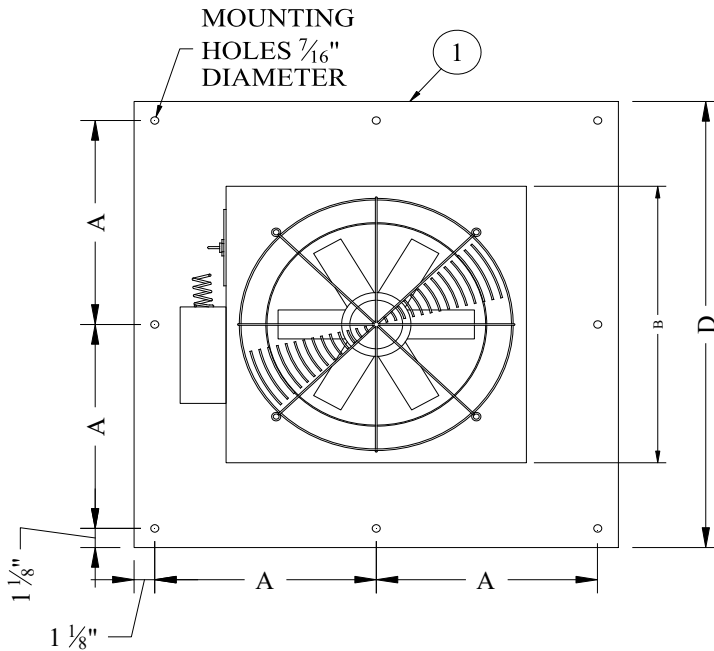
NETWORK SYSTEMS
 VAULT ACCESSORIES
 VENTILATION CABINET



NOTES:


1. FANS SHALL BE OF HEAVY DUTY CONSTRUCTION DESIGNED FOR CONTINUOUS WORK.
2. FAN SHALL BLOW TURBULENT AIR INTO TRANSFORMER VAULT.
3. FAN SHALL COME COMPLETELY ASSEMBLED AND INCLUDE A 2-SPEED SWITCH, THERMOSTAT AND 4' CORD WITH PLUG.
4. MOTOR SHALL BE 115V AC, SINGLE PHASE, 60 CYCLE, DRIP PROOF CONSTRUCTION, TWO SPEED.
5. FAN GUARD SHALL CONFORM TO OSHA REQUIREMENTS.
6. THERMOSTAT SHALL BE HEAVY DUTY, SET TO TURN ON FAN AT 90°F AND OFF AT 70°F.

2015-25-12 2015-25-32
 2015-25-18 2015-25-38
 2015-25-24 2015-25-44



FAN SIZE	WALL OPENING	A	B	C	D
12	18 X 18	12	18 1/4	21 1/8	26
16	24 X 24	15	22 1/4	25 3/8	32
20	30 X 30	19	26 1/4	25 3/8	40

NOTE: SEE DRAWING FOR EXPLANATION FOR A, B, C, AND D.

2015-25	NETWORK SYSTEMS	
Sheet 2 of 2	VAULT ACCESSORIES	
Rev. 04/24/20	VENTILATION CABINET	

CU

CU-ID	CU-REF	CU-DESCRIPTION
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FANVAULT12IN	20152512	FAN VLT 12 IN SUPPLY AIR FLOW
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000016788	FAN VAULT 12 IN SUPPLY AIR FLOW 1/3 HP 1750 RPM	1 EA	20152512

FANVLT16INSUPPLY	20152518	FAN VLT 16 IN SUPPLY AIR FLOW
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000022448	FAN VAULT 16 IN SUPPLY AIR FLOW 1/3 HP 1750 RPM	1 EA	20152518

FANVLT20INSUPPLY	20152524	FAN VLT 20 IN SUPPLY AIR FLOW
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000022450	FAN VAULT 20 IN SUPPLY AIR FLOW 1/3 HP 1750 RPM	1 EA	20152524

FANVAULT12INREVLO	20152532	FAN VLT 12 IN EXHAUST AIR FLOW
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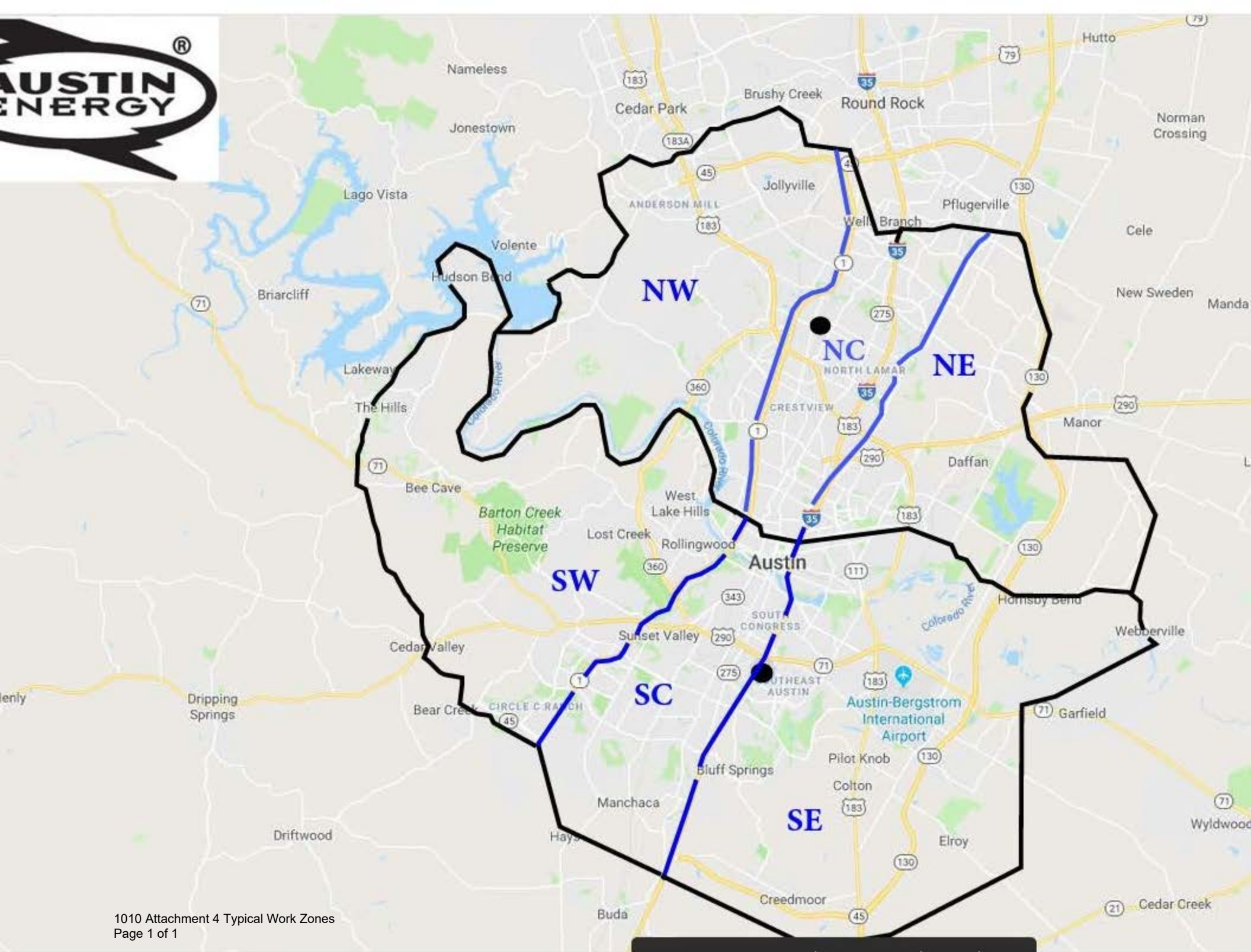
ID	PART NUM	PART DESC	QTY	CU-REF
1	0000016787	FAN VAULT 12IN EXHAUST AIR FLOW 1/3 HP 1750 RPM	1 EA	20152532

FANVLT16INEXHAUST	20152538	FAN VLT 16IN EXHAUST AIR FLOW
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000022449	FAN VAULT 16 IN EXHAUST AIR FLOW 1/3 HP 1750 RPM	1 EA	20152538

FANVLT20INEXHAUST	20152544	FAN VLT 20 IN EXHAUST AIR FLOW
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ID	PART NUM	PART DESC	QTY	CU-REF
1	0000022451	FAN VAULT 20 IN EXHAUST AIR FLOW 3/4 HP 1750 RPM	1 EA	20152544



PART 1 - GENERAL

1.1 Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Sanitary Facilities

CONTRACTOR shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing Work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet shall be furnished for each 20 employees. CONTRACTOR shall enforce the use of such sanitary facilities by all personnel at the site.

3.2 Protection of Public and Private Property

CONTRACTOR shall protect, shore, brace, support and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by the CONTRACTOR's operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the easement/right-of-way. All replacements shall be made with new materials.

CONTRACTOR shall be responsible for all damage to streets, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property, which may be caused by transporting equipment, materials, or men to or from the Work, whether by him or his Subcontractors. CONTRACTOR shall make satisfactory and acceptable arrangements with the owner of, or the agency having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

3.3 Tree and Plant Protection

All trees and other vegetation which must be removed to perform the Work shall be removed and disposed of by the CONTRACTOR; however, no trees or cultured plants shall be unnecessarily removed unless their removal is indicated on the Drawings. All trees and plants not removed shall be protected against injury from construction operations.

No tree shall be removed outside of permanent easement(s), except where authorized by the E/A. Whenever practicable, CONTRACTOR shall tunnel beneath trees in yards and parking lots when on or near the line of trenching operations. Hand excavations shall be employed as necessary to prevent injury to trees. Care shall be taken with exposed roots, unearthed during construction, so that roots do not dehydrate causing tree damage.

Trees considered by the E/A to have any significant effect on construction operations are indicated on the Drawings and those which are to be preserved are so indicated.

CONTRACTOR shall take extra measures to protect trees designated to be preserved, using methods shown on the Drawings and as specified in Standard Specification Item No. 610S "Preservation of Trees and other Vegetation".

3.4 Erosion Control

CONTRACTOR shall prevent erosion of soil on the site and adjacent property resulting from his construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations which will disturb the natural protection.

CONTRACTOR shall use controls found in "Environmental Criteria Manual" or developed from successful techniques elsewhere as approved by E/A.

3.5 Pollution Control

CONTRACTOR shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and the substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures shall be taken by CONTRACTOR to prevent such materials from entering any drain or watercourse.

CONTRACTOR shall observe the rules and regulations of the State of Texas and agencies of the U.S. Government prohibiting the pollution of any lake, stream, river, or wetland by the dumping of any refuse, rubbish, dredge material, or debris therein.

CONTRACTOR is specifically cautioned that disposal of materials into any water of the State must conform to the requirements of the Texas Commission on Environmental Quality (TCEQ), and any applicable permit from the U.S. Army Corps of Engineers.

3.6 Noise Control

CONTRACTOR shall comply with the City of Austin's Noise Ordinance. CONTRACTOR shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound level in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

3.7 Fences

All existing fences affected by the Work shall be maintained by the CONTRACTOR until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. Where fences must be maintained across any construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

Upon completion of the Work across any tract of land, CONTRACTOR shall restore all fences to preconstruction, or to a better, condition and to their preconstruction location.

3.8 Notification of Owners

Unless otherwise indicated, the OWNER will notify property owners abutting the right-of-way of impending construction. The CONTRACTOR shall exercise diplomacy and tact with individual property owners.

3.9 Maintenance of Traffic

CONTRACTOR shall conduct his Work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks whether public or private, the CONTRACTOR shall provide and maintain suitable safe bridges, detours or other temporary measures to accommodate public and private travel, and shall provide reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when CONTRACTOR has obtained written permission from the owner and the tenant of the private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point. A copy of the initial written permission shall be provided to the Owner's Representative.

Safety and conveyance of traffic shall be regarded as prime importance. Unless otherwise directed, all portions of streets associated with this Project shall be kept open and provided a dust free, smooth and comfortable ride to traffic. It shall be the responsibility of the CONTRACTOR to ensure that two-way traffic may safely bypass the construction site and that access is provided to abutting private property. In making open cut street crossings, the CONTRACTOR shall not block more than one-half of the street at one time without approval of the OWNER. Whenever possible, CONTRACTOR shall widen the shoulder on the opposite side to facilitate traffic control. Temporary surfacing shall be provided as necessary on shoulders.

Prior to beginning Work, CONTRACTOR shall designate, in writing, a competent person who will be responsible and available on the Project site, or in the immediate area, to ensure compliance with the traffic control plan. CONTRACTOR shall provide documentation to demonstrate the sufficient training in Traffic Control for his competent person. Owner will designate a qualified person to observe implementation and who will have authority to assure compliance with the traffic control plan.

The CONTRACTOR shall perform the necessary cleanup and finishing immediately after all or a portion of the Work is completed. When the Work includes paving operations, the entire site shall be kept clean to facilitate placement of required traffic control devices. Temporary and permanent striping lay-out shall be approved by the Transportation Department prior to placement, when included in the Work.

1. Detours

Where indicated on the traffic control plan CONTRACTOR shall erect and maintain detours around construction activities. Should CONTRACTOR desire to propose a detour, not already included in the traffic control plan, it shall be his responsibility to prepare a revised traffic control plan showing the detour, and obtain approval of the revised traffic control plan from the Transportation Department, prior to implementation of the detour. The Transportation Department has final authority as to the acceptability of any proposed revisions to the traffic control plan. The CONTRACTOR shall bear all costs for revising the traffic control plan and for maintaining the proposed detour.

2. Barricades and lights

CONTRACTOR shall place and maintain in good condition, standard barricades at each end of the Project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Barricades and warning signs shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (MUTCD) and City of Austin Standard Specification Item No. 803S, "Barricades, Signs and Traffic Handling". Signs, barricades, and warning devices informing the public of construction features will be placed and maintained by the CONTRACTOR, who shall be solely responsible for their maintenance. The decision to use a particular device at a particular location as indicated in the traffic control plan or as determined by the CONTRACTOR, shall be the sole responsibility of the CONTRACTOR.

All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions, such as material piles and equipment shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on, or along side, public streets and highways shall cause a minimum obstruction and inconvenience of the traveling public.

3.10 Required Job Site Postings and Notices

CONTRACTOR shall post the following postings and notices in English and Spanish at one or more conspicuous locations on the job site. In the case of Projects with multiple sites, the notices and postings must be displayed at each site. In the case of Projects that do not have a job shack or other temporary facility on the site, CONTRACTOR shall post all notices on a temporary bulletin board in the vendor's yard. Other special conditions are noted below.

Required for all Projects	
<i>Poster</i>	Available at:
Baseline Schedule for Project identifying when all subcontractors will be used	N/A (as required under Section 00700, paragraph 2.4.2.1.)
Wage Rates as required under Section 00830.	Section 00830BC and/or Section 008300HH
City of Austin Wage Contact posters	Provided at Pre-Construction meeting (English and Spanish)
City of Austin Equal Employment Opportunity posters	http://austintexas.gov/department/wage-compliance (English and Spanish)
Texas Commission on Environmental Quality "Construction Site Notice" form, if applicable, as required <u>or</u> the required TPDES information	http://www.tceq.state.tx.us/assets/public/permitting/waterquality/attachments/stormwater/txr152d2.pdf (Option 1 - as required under Section 00810, 6.7.4.2) N/A (Option 2 - as required under Section 00810, 2.6.7.4.3)
OSHA poster "Job Safety and Health: It's the Law"	http://www.osha.gov/Publications/osh3165.pdf (English) http://www.osha.gov/Publications/osh3167.pdf (Spanish)
City of Austin Rest Break Ordinance Signs	http://austintexas.gov/department/wage-compliance (English and Spanish) As required to be posted in English and Spanish under Ordinance No. 20100729-047
Texas Payday Law Poster	http://www.twc.state.tx.us/ui/lablaw/ll10.pdf (English) http://www.twc.state.tx.us/ui/lablaw/ll10s.pdf (Spanish)
Texas Workers Compensation notice that the employer does or does not carry Workers Compensation insurance	Does <u>not</u> carry Workers Compensation Insurance: http://www.tdi.state.tx.us/forms/dwc/notice5.pdf (English) http://www.tdi.state.tx.us/forms/dwc/notice5s.pdf (Spanish) Does carry Workers Compensation Insurance: http://www.tdi.state.tx.us/forms/dwc/notice6.pdf (English) http://www.tdi.state.tx.us/forms/dwc/notice6s.pdf (Spanish)
TWC Employer's Notification of the Ombudsman Program to	http://www.oiec.state.tx.us/documents/Employer_Notice_of_O.pdf (both versions)

Employees	
DOL – The Uniformed Services Employment and Reemployment Rights Act (USERRA)	http://www.dol.gov/vets/programs/userra/USERRA_Private.pdf
EEOC Equal Employment Act and the Americans with Disabilities Act (ADA)	http://www.dol.gov/ofccp/regs/compliance/posters/pdf/eeopost.pdf (English) http://www.dol.gov/ofccp/regs/compliance/posters/pdf/eeosp.pdf (Spanish)
Fair Labor Standards Act (FLSA) Minimum Wage Poster	http://www.dol.gov/whd/regs/compliance/posters/flsa.htm (English) http://www.dol.gov/whd/regs/compliance/posters/flspan.htm (Spanish)
If applicable: Employee Rights for Workers with Disabilities/Special Minimum Wage Poster – Employment Standards	http://www.dol.gov/whd/regs/compliance/posters/disabc.pdf http://www.dol.gov/whd/regs/compliance/posters/disabspanc3p.pdf
“Your Rights Under the Family and Medical Leave Act (FLMA)”	http://www.dol.gov/whd/regs/compliance/posters/fmlaen.pdf (English) http://www.dol.gov/whd/regs/compliance/posters/fmlasp.pdf (Spanish)
Title VI Rights Poster	http://austintexas.gov/department/wage-compliance
Additional Postings Required for Federally Funded Projects	
“Employee Rights Under the Davis-Bacon Act”	http://www.dol.gov/whd/regs/compliance/posters/fedprojc.pdf (English) http://www.dol.gov/whd/regs/compliance/posters/davispan.pdf (Spanish)
Applies to USDOT/FHWA funded projects: “Notice of False Statements Concerning Highway Projects”	http://www.mdt.mt.gov/publications/docs/forms/dbe/eeo_board/false_statements.pdf (as required in Section 00810A Standard Federal-Aid Assurances)
Applies to USDOT/FHWA funded projects; “Contractors EEO Policy”	N/A (as required in Section 00810A Standard Federal-Aid Assurances)

END