

**SANTA FE SOLID WASTE  
MANAGEMENT AGENCY**

**REQUEST FOR BIDS**

**BID NO. '18/10/B**



**FOR**

**BUCKMAN ROAD RECYCLING AND  
TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND  
GENERAL STRUCTURAL REPAIRS**

**APRIL 2018**

**BIDS DUE:**

**MAY 18, 2018 at 2:00 P.M.**

**PURCHASING OFFICE**

**CITY OF SANTA FE**

**2651 SIRINGO ROAD – BUILDING H**

**SANTA FE, NEW MEXICO 87505**

**BUCKMAN ROAD RECYCLING AND TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL REPAIRS  
BID NO. '18/10/B**

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# **Section 1**

## **Invitation to Bid**

**SANTA FE SOLID WASTE MANAGEMENT AGENCY  
ADVERTISEMENT FOR BIDS**

INVITATION TO BID NO.:     **‘18/10/B**

SEALED BID FOR:             Santa Fe Solid Waste Management Agency (SFSWMA)  
  Buckman Road Recycling and Transfer Station (BuRRT)  
  Tipping Floor Rehabilitation and General Structural Repairs

BID SCHEDULE                 Advertisement: April 13, 2018  
  Issuance of Bid Packages: April 13, 2018  
  Pre-Bid Conference: April 23, 2018 @ 10:00 a.m.  
  Bid Opening: May 18, 2018 @ 2:00 p.m.  
  Bid Award (Joint Powers Board): June 21, 2018  
  Notice to Proceed: July 11, 2018 (Estimated)

TO BE OPENED AT:            City Purchasing Office  
  City of Santa Fe  
  2651 Siringo Road, Building H  
  Santa Fe, NM 87505

TIME:                            2:00 p.m. Local Prevailing Time

DATE:                            May 18, 2018

ADDRESSED TO:                Ms. Shirley Rodriguez  
  Purchasing Director  
  City of Santa Fe  
  2651 Siringo Road, Building H  
  Santa Fe, NM 87505

**PRE-BID CONFERENCE:** A non-mandatory pre-bid conference will be held at 10:00 a.m. on April 23, 2018, at the Buckman Road Recycling and Transfer Station, 2600 Buckman Road, Santa Fe, NM 87507. The pre-bid conference will provide significant aspects of the project and address any potential bidder questions. Immediately after the pre-bid conference, bidders may participate in an optional site visit of the Tipping Floor Rehabilitation and General Structural Repairs project with representatives from CDM Smith Inc. (Engineer) and Santa Fe Solid Waste Management Agency (Owner).

The work to be performed for this project consists of furnishing all equipment, labor and materials for the construction of the Buckman Road Recycling and Transfer Station Tipping Floor Rehabilitation and General Structural Repairs in accordance with the Construction Plans, Specifications, and other Contract Documents ("Work").

Bids will be received until the above time, then opened publicly at the City of Santa Fe Purchasing Office, 2651 Siringo Road, Building H, Santa Fe, New Mexico and read aloud. Bids received after the above time will be returned unopened.

Contract Documents may be reviewed at the following address:

Santa Fe Solid Waste Management Agency  
Attn: Rosalie Cardenas  
149 Wildlife Way  
Santa Fe, NM 87506  
(505) 424-1850  
Email: rcardenas@sfswma.org

**OBTAINING COPIES OF CONTRACT DOCUMENTS:** Construction plans, specifications and other contract documents ("Contract Documents") may be obtained at the following address:

Academy Reprographics  
8900-N San Mateo Blvd NE  
Albuquerque, NM 87113  
Phone: (505) 821-6666  
Email: plot@acadrepro.com

Prospective bidders may go directly to Academy Reprographics' web site ([www.acadrepro.com](http://www.acadrepro.com)) to review or obtain (for a fee) a complete set of the Contract Documents, including construction plans and specifications. Bidders are advised that the cost of the CD and/or any costs to reproduce hard copies of the Contract Documents or portions thereof are non-refundable. Bidders may also view the Contract Documents at <http://www.santafenm.gov/bids.aspx>.

Bids for the project will be presented in the form of a unit price or lump sum bid as indicated on the **Bid Form**. The bidder shall bid all items listed. Each bidder must conform to the conditions specified in the section entitled **Instructions for Bidders**.

**BID GUARANTEE:** Each bid shall be accompanied by an acceptable form of bid Guarantee (Bid Security) in an amount equal to at least five percent (5%) of the amount of the bid payable to the Santa Fe Solid Waste Management Agency as a guarantee that if the bid is accepted, the Bidder will execute the Contract and file acceptable **Performance and Labor and Material Payment Bonds** within fifteen (15) days after the award of the Contract.

The bid shall also include a signed **Non-Collusion Affidavit of Prime Bidder**, a signed **Certificate of Bidder Regarding Equal Employment Opportunity**, **Certificate of Nonsegregated Facilities**, and **Acknowledgement for Receipt of Addenda**. The successful Bidder shall, upon notice of award of Contract, secure from each of its subcontractors a signed **Non-Collusion Affidavit of Subcontractor**. Bidders must possess an applicable license to perform the Work under the Contract, provided for in the New Mexico Construction Industries Rules and Regulations.

**The Work shall be complete within ninety (90) calendar days following issuance of a notice-to-proceed to the successful Bidder. Following the ninety (90) calendar day contract time, SFSWMA will impose liquidated damages for failure to comply with this time limit, as specified in the Contract Documents.**

**Performance Bond and Labor & Material Payment Bond**, each 100% of the Contract sum, will be required of the successful Bidder entering into the construction Contract.

Bidders agree to hold their bid prices for sixty (60) days subject to action by the Owner.

**OWNERS RIGHTS RESERVED:** The Santa Fe Solid Waste Management Agency, herein referred to as the Owner, reserves the right to reject any or all bids and to waive any formality or technicality in any bid in the best interest of the Owner.

Wages paid on this project shall not be less than the minimum prevailing wage rates listed in the Contract Documents.

To receive a resident or resident veteran contractor preference pursuant to Section 13-4-2 NMSA 1978, a resident or resident veteran contractor shall submit with its bid a copy of a valid resident or resident veteran contractor certificate issued by the New Mexico Taxation and Revenue Department pursuant to Section 13-1-22 NMSA 1978.

**EQUAL OPPORTUNITY IN EMPLOYMENT:** All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, or national origin. Bidders on this work will be required to comply with the Presidents Executive Order No. 11246 as amended.

**ATTEST:**

  
Shirley Rodriguez, Acting Purchasing Officer

Received by the Santa Fe New Mexican on: April 10, 2018

To be published on: April 13, 2018

Received by the Albuquerque Journal on: April 10, 2018

To be published on: April 13, 2018



## **Section 2**

# **Instructions to Bidders**

## **INSTRUCTIONS FOR BIDDERS**

Bids are requested by the Santa Fe Solid Waste Management Agency for construction of the Buckman Road Recycling and Transfer Station Tipping Floor Rehabilitation and General Structural Repairs in accordance with the construction plans, specifications and contract documents.

1. **LOCATION AND DESCRIPTION OF WORK:** The Work under this Contract shall be performed on-site at the Buckman Road Recycling and Transfer Station, 2600 Buckman Road, Santa Fe, New Mexico 87507. The Work consists of construction for tipping floor rehabilitation and structural repairs including demolition of existing concrete and steel plating, concrete repairs, installation of steel plating, and resurfacing of approximately 2,650 square feet of tipping floor with extra heavy-duty concrete, as shown and specified in the Contract Documents.
2. **TIME AND PLACE OF RECEIVING AND OPENING BIDS:** This information will be found in the "Advertisement for Bids" form attached hereto. A bid received after the specified time will not be considered and will be returned to the bidder unopened.
3. **SPECIFICATIONS:** The construction of this project will be in accordance with the General and Supplemental Conditions, Construction Plans and Technical Specifications contained in the Contract Documents.
4. **CONTRACT DOCUMENT DEPOSIT:** Prospective bidders may go directly to Academy Reprographics' web site ([www.acadepro.com](http://www.acadepro.com)) to review or obtain (for a fee) a complete set of the Contract Documents, including construction plans and specifications. Bidders are advised that the cost of the CD and/or any costs to reproduce hard copies of the Contract Documents or portions thereof are non-refundable.
5. **DEFINED TERMS:** Terms used in these Instructions to bidders have the meanings assigned to them in this Request for Bids.
6. **EXAMINATION OF CONTRACT DOCUMENTS AND SITE:** Before submitting the bid, each bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize itself with local conditions that may in any manner affect performance of the Work, (c) become familiar with Federal, State and local laws, ordinances, rules and regulations affecting performance of the Work; and (d) carefully correlate the bidder's observations with the requirements of the Contract Documents. The submission of a bid constitutes representation by Bidder that Bidder has complied with every requirement of this section and that the Contract Documents are sufficient in scope to indicate and convey understanding of all terms and conditions for performance of the Work.
7. **THE COMPLETE CONTRACT DOCUMENTS CONTAIN THE FOLLOWING:** Everything that is contained herein, as well as General and Supplemental Conditions, Construction Plans and Technical Specifications referenced herein.
8. **INTERPRETATIONS, ADDENDA AND AMENDMENTS:** Any prospective bidder who desires to receive notice of interpretations, addenda, or amendments to this Request for Bids shall provide contact information to the Owner. All questions about the meaning or intent of the Contract Documents shall be submitted to the Owner in writing or e-mailed to Doug Williams, [williamsd2@cdmsmith.com](mailto:williamsd2@cdmsmith.com). Replies will be issued by Addenda mailed, emailed, or faxed to all parties recorded by the Owner as having provided their contact information at

least two (2) days before the Addenda is sent. Questions received less than five (5) days prior to the date for opening of bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. The Owner reserves the right to amend these time frames if a critical Addendum is required or if the proposal deadline needs to be extended in the best interest of the Owner.

9. **BID SECURITY:** Bid Security (bid guarantee) in the amount of 5% of the amount of the bid shall accompany the Bid Form and must be in the form of a certified or bank cashier's check made payable to the Owner or a bid bond issued by a surety licensed to conduct business in the State of New Mexico, or otherwise supplied in a form satisfactory to the Owner. The Bid Security of the successful Bidder will be retained until the Bidder has executed the Construction Agreement and furnished the required Contract Security (Performance and Labor and Material Payment Bonds), whereupon it will be returned. If the Bidder fails to execute and deliver the Construction Agreement and furnish the required Contract Security within ten (10) days of the Notice of Award, the Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by the Owner until either the seventh (7) day after the executed Construction Agreement is delivered by the Owner to Contractor and the required Contract Security is furnished; or the sixty-first (61) day after the bid opening, whichever is earlier. Bid Security of other Bidders will be returned within fifteen (15) days of the bid opening, or sooner.

10. **RESIDENT PREFERENCE:**

**INTENT AND POLICY:** The Owner recognizes that the intent of the state resident preference statute is to give New Mexico businesses and contractors an advantage over those businesses, manufacturers and contractors from outside the State of New Mexico. The underlying policy is to give a preference to those persons and companies who contribute to the economy of the State of New Mexico by maintaining plants and other facilities within the State and giving employment to residents of the State (1969 OP. Attorney. Gen. No. 6942).

**APPLICATION:** With acknowledgement of this intent and policy, the resident preference will only be applied when bids are received from in state businesses, manufacturers and contractors that are within five (5) percent of low bids received from out-of-state businesses, manufacturers and contractors (NMSA 1978, §§ 13-1-21 and 13-4-2).

To be considered a resident for application of the preference, the in-state Bidder must include a valid resident business certificate or resident contractor certificate with the submitted bid.

**NON-APPLICATION OF RESIDENT PREFERENCES:**

If the lowest responsive bid and the next responsive bids within five (5) percent of the lowest bid are all from bidders who have submitted a resident business certificate or a resident contractor certificate, then the resident preference will not be applied.

Preferences shall not be applied when expenditures of Federal funds designated for a specific contract is involved.

**NEW MEXICO RESIDENT VETERAN PREFERENCE:** New Mexico law, NMSA 1978, § 13-1-22, provides a preference in the award of a public works contract for a "resident veteran business." Certification by the NM Department of Taxation and Revenue for the resident

veteran business requires the Offeror to provide evidence of annual revenue and other evidence of veteran status.

An Offeror who wants the veteran business preference to be applied to its proposal is required to submit with its proposal the certification from the NM Department of Taxation and Revenue and the sworn affidavit attached hereto in Section 3, Bid Proposal.

If an Offeror submits with its proposal a copy of a valid and current veteran resident business certificate, 7%, 8%, or 10% of the total weight of all the evaluation factors used in the evaluation of proposal may be awarded as set forth in NMSA 1978, § 13-1-21 and 13-1-22.

The resident business or contractor preference is not cumulative with the resident veteran business preference.

11. **CONTRACT TIME:** The number of days for the completion of Work (the Contract Time) is ninety (90) calendar days as set forth in the Bid Proposal and will be included in the executed Construction Agreement.

12. **SUBCONTRACTORS, SUPPLIERS AND OTHERS:**

A. Contractor, in the bid documents, must identify in writing to the Owner those portions of the Work that are proposed to be subcontracted and after the Notice of Award, may only subcontract other portions of the work with the Owner's written consent.

B. Contractor shall list all Subcontractor names, addresses and type of work to be performed.

C. The Subcontractor threshold amount for this project is \$5,000. Contractor must list all subcontractors who will perform work in excess of this threshold. Only one Subcontractor may be listed for each category of work as defined by Contractor. The Subcontractors Fair Practices Act (NMSA 1978, §§13-4-31 thru 13-4-42) shall apply.

D. **EXEMPTION:** In accordance with the "SUBCONTRACTOR'S FAIR PRACTICES ACT", Section 13-4-35, Contractor shall not be required to submit a Subcontractor's Listing form with the bid for contracts for construction, improvement or repair of streets or highways, including bridges, underground utilities within easements, including but not limited to waterlines, sewer lines and storm sewer lines. The SUBCONTRACTOR'S FAIR PRACTICES ACT shall apply, however, to that portion of contracts for construction, improvement or repair of streets or highways which covers street lighting and traffic signals.

E. The Bidder shall list the Subcontractor(s) or material supplier(s) proposed to be used for all trades or items on the Subcontractor Listing Form attached to the Bid Form. The listing must include Subcontractors specifically identified in Paragraph D above. If awarded the contract, the Bidder shall use the firm listed, or itself if "General Contractor" has been listed, unless a request for a change or substitution is approved by the Owner of any reason as outlined herein.

F. For subcontract work involving the application of the "SUBCONTRACTORS FAIR PRACTICES ACT," NMSA 1978 §§13-4-31 thru 13-4-42 the following provisions, shall apply:

1. Contractor may not substitute any Subcontractor listed, unless the Owner approves, in writing, the substitution based on the following situations:

a. The Subcontractor fails or refuses to execute a contract due to bankruptcy or

- insolvency;
- b. The Subcontractor fails or refuses to perform;
  - c. Contractor demonstrates to the Owner that the listed Subcontractor was due to an inadvertent clerical error;
  - d. Acceptance of an alternate by the Owner causes the original Subcontractor's bid not to be low;
  - e. Contractor can substantiate to the Owner that a Subcontractor's bid is incomplete, or;
  - f. The Subcontractor fails or refuses to meet bond requirements of Contractor.
2. Prior to approval of Contractor's request for substitution, the Owner shall give notice to the listed Subcontractor by certified mail. The Subcontractor shall have five (5) working days to submit written objections to the Owner. Failure to respond shall constitute Subcontractor's consent to the substitution. If written objections are received, the Owner shall give five (5) working days of a notice of a hearing.
  3. No other substitution of Subcontractors may be permitted by Contractor, other than for requested change orders to the Work or unless Contractor can show that no bids were received.
  4. It shall be the responsibility of the Subcontractor to be prepared to submit performance or payment bonds if requested by Contractor. If the Subcontractor does not furnish such requested bonding, Contractor may substitute another Subcontractor, as per the provisions of item 1 above. (The requirement of such bonding must be included in Contractor's written or published request for Subcontract bids.)
  5. If Contractor does not specify a Subcontractor, Contractor represents that Contractor shall perform the work.
  6. If Contractor is claiming an inadvertent clerical error, notice shall be given to the Owner and to the involved Subcontractor within two (2) working days of the bid opening. The Subcontractor shall have six (6) working days from the bid opening to submit written objections. Failure to respond shall constitute Subcontractor's agreement that an error was made.
  7. If determined to be an emergency, upon written finding, subcontracting may be permitted although not originally designated in the bid.
  8. Violation of this Act may allow the Owner to cancel the Contract or assess Contractor a penalty up to ten (10) percent of the subcontract involved, but in no case less than the difference between the amount of the listed Subcontractor and the Subcontractor used. Contractor shall be entitled a hearing after the notice of intent of assess a penalty.
  9. If a hearing is held, the dispute shall be stated in writing and the Owner shall evaluate the issues of both sides and render a determination within ten (10) days of the hearing and provide the parties with a written copy of the decision by certified mail. The Owner may also refer the matter to arbitration.

13. BID FORM:

- A. The Bid Form is included in the Contract Documents.
- B. The Bid Form must be completed in either ink or typewritten. The bid price of each item on the form must be stated in numerals and written words; in case of an error in extensions in the unit price schedule, the unit price shown in written words shall govern.
- C. Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) The corporate address and state of incorporation shall be shown below the signature.
- D. Bids by partnerships must be executed in the partnership name and signed by a partner, and the title must appear under its signature and the official address of the partnership must be shown below the signature.
- E. All names must be typed or printed below the signature.
- F. The bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

14. QUALIFICATION OF BIDS: All Bidders must have a valid New Mexico Contractor's License appropriate to the Work herein specified.

15. SUBMISSION OF BIDS: Bids shall be submitted at the time and place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope, marked with the project title, name and address of the Bidder, N.M. License Number, and accompanied by the Bid Security, list of subcontractors and other required documents. The Bid Form shall not be detached from the bound set of Contract Documents. All blanks must be filled in. Conditional bids will not be considered. The envelope shall be addressed to:

Ms. Shirley Rodriguez  
Acting Purchasing Officer  
2651 Siringo Road Bldg. H  
Santa Fe, NM 87505

16. MODIFICATION AND WITHDRAWAL OF BIDS: Bids may be modified or withdrawn by an appropriate document duly executed and delivered to the place where bids are to be submitted at any time prior to the opening of bids.

17. BID OPENING PROCEDURE: The person or persons opening the bids shall verify the following bid components are included:

- A. Bid Proposal;
- B. Bid Form and Completed Bid Schedule - Name of Bidder and Bidder's New Mexico Contractor's License with a check for proper signatures, subcontractor/material listing, and acknowledgement of Addenda, if any;
- C. Bid Bond or Check for Bid Security;
- D. Non-Collusion Affidavit of Prime Bidder;
- E. Non-Collusion Affidavit of Subcontractor(s);
- F. Certification of Nonsegregated Facilities;
- G. Certification of Bidder regarding Equal Employment Opportunity;



- H. Certification of Subcontractor regarding Equal Employment Opportunity; and
  - I. Resident Veteran Contractor / Resident Contractor, if any.
18. BIDS TO REMAIN OPEN: If a Contract is to be awarded, it will be awarded to the lowest responsible base bid whose evaluation indicates to the Owner that the award will be in the best interests of the project and the Owner. All bids shall remain open for sixty (60) days after the day of the bid opening, but the Owner may, in its sole discretion, release any bid and return the Bid Security prior to that date.
19. AWARD OF CONTRACT:
- A. The Owner reserves the right to reject any and all bids and waive any and all informalities or technicalities and the right to disregard all nonconforming or conditional bids or counter bids.
  - B. If a Contract is to be awarded, it will be awarded to the lowest responsible base bid whose evaluation indicates to the Owner that the award will be in the best interests of the project and the Owner. Additive Alternatives may be added in total or in part, based on available funding or timing to be exercised by the Owner at its discretion. If Alternatives are to be awarded, the Owner will award the Contract to the responsible Bidder submitting the low base bid, excluding NMGRT, including any combination of any Additive Alternates or Deductive Alternates.
  - C. Simultaneously with delivery of the executed counterparts of the Agreement to the Owner, Contractor shall deliver to the Owner the required Contract Bonds.
  - D. If a Contract is to be awarded, the Owner will give the apparent successful Bidder a Notice of Award within thirty (30) days after the day of the bid opening.
  - E. If the lowest responsible Bidder has otherwise qualified, the lowest Bidder may negotiate with the Owner for a lower bid if the lowest bid is within ten percent over budgeted project funds. No change in the original scope of the terms or terms and conditions will be allowed. Terms and conditions refer to the Contract requirements, warranties, and bonds. Negotiation may be permitted with product, materials, and equipment alternatives as determined to be in the best interest of the Owner.
20. WAGE RATES: The Bidder's attention is directed to the fact that wages to be paid on this project shall not be less than the prevailing wage rates as listed by the New Mexico State Labor and Industrial Commission. It shall be the successful Bidder's responsibility to inform itself thoroughly of all state, federal and local laws and statutes pertaining to the employment of labor, the freedom of organization and the conditions of employment and shall strictly adhere to such laws and regulations as are applicable. There shall be no discrimination because of race, creed, color, national origin or legal political affiliation in the employment of persons qualified by training and experience for work under this contract.
21. REQUIRED SUBMITTALS:
- A. Bid Proposal;
  - B. Bid Form and Completed Bid Schedule - Name of Bidder and Bidder's New Mexico Contractor's License with proper signatures, subcontractor/material listing, and acknowledgement of Addenda, if any;
  - C. Bid Bond or Check for Bid Security;

- D. Non-Collusion Affidavit of Prime Bidder;
- E. Non-Collusion Affidavit of Subcontractor(s);
- F. Certification of Nonsegregated Facilities;
- G. Certification of Bidder regarding Equal Employment Opportunity;
- H. Certification of Subcontractor regarding Equal Employment Opportunity; and
- I. Resident Veteran Contractor / Resident Contractor / Local Contractor Certification (where applicable).

If any of the above requirements have not been met, the bid shall not be read.

- 22. **SUBSTITUTIONS:** The bid shall not be qualified by the bid of substitutions for specified materials or equipment.
- 23. **OWNER PREFERENCES:** In the construction of this project, the Owner has no preference for any process, type of equipment, or kind of material, but will consider all processes, types of equipment or kinds of material offered on a usual competitive basis if they are in fact the equal to that specified and will accomplish the purpose intended. The Owner reserves the right to be the sole judge as to whether or not a different process, type of equipment or kind of material offered is in fact equal to that specified.
- 24. **LICENSE OR ROYALTY FEES:** Licenses and/or royalty fees for products or for processes must be paid for directly by Contractor.
- 25. **PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND:** Contractor will be required to furnish surety bonds in an amount at least equal to one hundred percent (100%) each of the total Contract price as security for faithful performance of the Contract and payment for all labor and materials. The surety company must be authorized to do business in the State of New Mexico and must be acceptable to the Owner.
- 26. **ADDENDUM:** Each Addendum shall be made a part of the Contract Documents to the same extent as though contained in the original Documents and itemized listing thereof. Each Bidder shall acknowledge receipt of each Addendum in the space provided on the Bid Form.
- 27. **COLLUSION:** No Bidder shall be interested in more than one bid. Collusion among Bidders or the submission of more than one bid under different names by any firms or individual shall be cause for rejection of all bids in question without consideration.
- 28. **QUANTITIES:** The quantities set forth in the Bid Form are estimated quantities on which bids will be compared and which will be the basis for Award of Contract. Payment will be made for the Work actually performed.
- 29. **UTILITY INSPECTION:** All work done on the existing Owner owned utilities shall be inspected by a representative of the Owner before backfilling.
- 30. **POWER OF ATTORNEY:** Attorneys in fact who sign bonds must attach certified effective copies of their Power of Attorney to all bonds.
- 31. **PRE-BID CONFERENCE:** A non-mandatory pre-bid conference will be held at 10:00 a.m. on April 23, 2018, at the Buckman Road Recycling and Transfer Station, 2600 Buckman Road, Santa Fe, NM 87507, as specified in the Advertisement for Bids.



32. **PROTEST PROCEDURE:** Any Bidder or Contractor who is aggrieved in connection with the procurement may protest to the City Purchasing Director. The protest must be in writing and be submitted within fifteen (15) days after the facts or occurrences.

The complete procedures and requirements regarding protests and resolution of protests are available from the Purchasing Office upon request.

33. **CONSIDERATION OF BIDS:**

33.1 **RECEIPT, OPENING AND RECORDING**

Bids received on time will be opened publicly and will be read aloud, and an abstract of the amounts of the Base Bids and Alternates or Bid Items, if any, will be made available to the Bidders. Each Bid shall be open to public inspection.

33.2 **BID EVALUATION AND AWARD**

33.2.1 It is the intent of the Owner to award a contract to the lowest responsible base bid, provided the bid has been submitted in accordance with the requirements of the Contract Documents. The unreasonable failure of a Bidder to promptly supply information in connection with an inquiry with respect to responsibility is grounds for a determination that the Bidder is not a responsible Bidder. Post-bid information that may be required of a Contractor as to qualifications can include, but not be limited to those items listed in paragraph 33.

33.2.2 If the Base Bid is within the amount of funds available to finance the construction Contract, Contract award will be made to the responsible Bidder submitting the low Base Bid, excluding New Mexico gross receipts tax (NMGRT). If alternatives are to be awarded the Owner will award the Contract to the responsible Bidder submitting the low Base Bid, excluding NMGRT, including any combination of any Additive Alternates or Deductive Alternates.

33.2.3 Discrepancies in the Bid Form between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

33.3 **COMPETITIVE SEALED BIDS**

Contracts solicited by competitive sealed bids shall require that the bid amount exclude applicable New Mexico Gross Receipts Taxes or applicable local option taxes, but that the Owner shall be required to pay the applicable taxes, including any increase in the applicable tax which becomes effective after the date the Contract is entered into. The applicable Gross Receipts Tax shall be computed and shown as a separate amount on the Bid Form and on each request for payment made under the Contract.

33.4 **NOTICE OF AWARD**

A written Notice of Award shall be issued by the Owner after review and approval of the bid and related documents by the SFSWMA Joint Powers Board, with reasonable promptness.

33.5 IDENTICAL BIDS

When two or more of the bids submitted are identical in price and are the low bid, the Owner may:

- A. Award pursuant to the multiple source award provisions of the Procurement Code;
- B. Award to a resident business if the identical low bids are submitted by a resident business and a nonresident business;
- C. Award to a resident manufacturer if the identical low bids are submitted by a resident manufacturer and a non-resident manufacturer;
- D. Award to one of the identical low Bidders;
- E. Reject all bids and re-solicit bids for the required services, construction, or items of tangible personal property.

33.6 CANCELLATION OF AWARD

When in the best interest of the public, the Owner may cancel the award of any contract at any time before the execution of said contract by all parties without any liability against the Owner.

34. POST-BID INFORMATION

34.1 RETURN OF BID SECURITY

All Bid Security in the form of checks, except those retained by the owner per paragraph 8.0 of this Instruction to Bidders will be returned within fifteen (15) days following the bid opening. The retained Bid Security of the Successful Bidder(s), if in the form of a check, will be returned after satisfactory Contract Bonds have been furnished and the Contract has been executed as stated in the above referenced paragraph 8.0. Bid Securities in the form of Bid Bonds will be returned only upon the request of the unsuccessful Bidder, but will be released by the Owner after the Notice of Award is sent by the Owner.

34.2 NOTICE TO PROCEED

The Owner will issue a written Notice to Proceed to Contractor stipulating the date from which Contract Time will be charged and the date Contract Time is to expire, subject to valid modifications of the Contract authorized by Change Order.

34.3 FAILURE TO EXECUTE CONTRACT

Failure to return the signed Contract with acceptable Contract Bonds and Certificate of Insurance within ten (10) calendar days after the date of the Notice of Award shall be just cause for the cancellation of the Award and the forfeiture of the Bid Security, which shall become payable to Owner damages sustained. Award may then be made to the next lowest responsible Bidder, or the work may be re-advertised and constructed under contract or otherwise, as the Owner may decide.

34.4 CONTRACTOR'S QUALIFICATION STATEMENT

Bidder to whom award of a Contract is under consideration shall submit, upon

request, information and data to prove that their financial resources, production or service facilities, personnel, and service reputation and experience are adequate to make satisfactory delivery of the services, construction, or items of personal property described in the Contract Documents and the form of submittal shall be a Statement of Bidder's Qualifications.

34.5      **CONTRACT BONDS REQUIREMENTS**

The Successful Bidder, where the Contract Price exceeds twenty-five thousand dollars (\$25,000), shall post a one hundred (100) percent Performance Bond and one hundred (100) percent Labor and Material Payment Bond. Bonds shall be executed on Performance Bond and Labor and Material Payment Bond forms attached hereto, with amount payable conforming to the terms of the Contract. Surety shall be a company licensed to do business in the State of New Mexico and acceptable to the Owner.

34.6      **INSURANCE REQUIREMENTS**

34.6.1 Contractor shall carry insurance to protect the Owner from and against all claims, demands, actions, judgments, costs, expenses and liabilities which may arise or result directly or indirectly from or by reasons of loss, injury or damage related to the Project. Contractor shall file with the Owner current certificates evidencing public liability insurance with limits as provided in the New Mexico Tort Claims Act, Section 41-4-19 NMSA 1978, and as that section or successors section may be amended from time to time. Contractor shall also carry such insurance as it deems necessary to protect it from all claims under any workmen's compensation law in effect that may be applicable to Contractor. All insurance required by the Contract shall be kept and remain in full force and effect for the entire life of the Contract.

34.6.2 The insurance coverage shall include worker's compensation, employer's liability, comprehensive general liability (Premises-Operations, independent contractors, products and completed operations, broad form property damage, contractual liability, explosion and collapse hazard, underground hazard, personal injury) comprehensive automobile liability (owned and hired), excess liability (umbrella form), and all-risk builder's risk.

34.6.3 All insurance coverage must be maintained for the entire term of the Contract. Products and completed operations coverage shall be maintained for a minimum period of one (1) year after final payment.

34.6.4 A valid certificate of insurance must be submitted to the Owner prior to issuance of a Notice-to-Proceed.

35. **MINIMUM WAGE RATES**

Any Contract entered into in excess of sixty thousand dollars (\$60,000) for construction, alteration, demolition, or repair, or any combination of these, including painting and decorating of public buildings or public works, is subject to the minimum wage rate determination issued by the New Mexico State Labor

and Industrial Commission for this project. Federal Funded Contracts in excess of two thousand dollars (\$2,000) are subject to Federal Labor Standards Requirements of Davis Bacon Act. The Bidder shall ensure that, in submitting the bid, the minimum wage rate determination, included herein, has been utilized in preparing the bid.

## **Section 3 Bid Proposal**

**BID PROPOSAL  
BID No. '18/10/B  
BUCKMAN ROAD RECYCLING AND TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL REPAIRS**

CONTRACTOR NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

To Santa Fe Solid Waste Management Agency, State of New Mexico (Owner):

The undersigned proposes to furnish and deliver all the material and to do all the work and labor required in the construction of "Tipping Floor Rehabilitation and General Structural Repairs" at the Buckman Road Recycling and Transfer Station in City of Santa Fe, State of New Mexico, according to the Construction Plans and Specifications at the prices named and shown on the Bid Form.

The undersigned declares that the only person or parties interested in the bid as principals are those named herein; that the bid is made without collusion with any person, firm or corporation; that the specifications have been carefully examined, including General and Supplemental Conditions, if any, and that the undersigned has made a personal examination of the site of the work has been made, that all the necessary machinery, tools, apparatus and other means of construction will be furnished and will do all the work and finish all the materials specified in the manner and the time prescribed; that the undersigned understands that the quantities are approximate only and subject to increase or decrease, and that the undersigned is willing to perform any increased or decreased quantities of work at the unit price bid.

The undersigned hereby agrees to execute and deliver the Construction Agreement and required bonds within ten (10) days, or such further time as may be allowed in writing by the Owner after receiving notification of the acceptance of this bid, and it is hereby mutually understood and agreed that in case we do not, we forfeit the accompanying check or bid bond to the Owner as liquidated damages, and the said Owner may proceed to award the contract to others.

The undersigned hereby agrees to commence the Work within ten (10) days, or such further time as may be allowed in writing by the after notification to proceed, and to complete the Work within ninety (90) calendar days, as outlined in the Contract Documents.

The undersigned proposes to furnish Labor and Material Payment Bond and Performance Bond in the amount of one hundred (100%) percent of the Contract Amount each as surety conditioned for the full complete and faithful performance of this contract, and to indemnify and save harmless the Owner from any damage or loss of which the Owner may become liable by the default of said Contractor, or by reason of any neglect or carelessness on the part of said Contractor, its agents or employees, or by or on account of any act or omission of said Contractor, its servants, agents or employees, in performance of this contract.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **Section 4 Bid Form**

**BID FORM  
SANTA FE SOLID WASTE MANAGEMENT AGENCY  
BUCKMAN ROAD RECYCLING AND TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL REPAIRS  
CONTRACTING AGENCY AND OWNER**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

Hereinafter called Bidder.

TO: Ms. Shirley Rodriguez  
Acting Purchasing Director  
City of Santa Fe  
2651 Siringo Road, Building H  
Santa Fe, NM 87505

Hereinafter called Owner,

**BID FOR: BUCKMAN ROAD RECYCLING AND TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL  
REPAIRS**

Santa Fe Solid Waste Management Agency: Bid No. '18/10/B

1. The Bidder has familiarized itself with the existing conditions on the Project area affecting the cost of the Work and with the Contract Documents which includes:
  - a. Advertisement for Bids
  - b. Instructions for Bidders
  - c. Bid Proposal
  - d. Bid Form
  - e. Supplemental Bid Forms
  - f. Construction Agreement
  - g. Performance Bond
  - h. Labor and Material Payment Bond
  - i. General and Supplemental Conditions
  - j. Technical Specifications
  - k. Construction Plans.

The Bidder hereby proposes to furnish all supervision, technical personnel, labor, materials, tools, appurtenances, equipment, and services (including all utility and transportation services) required to construct and complete the improvements, all in accordance with the above listed Documents.



2. Bidder agrees to perform all work to construct the Tipping Floor Rehabilitation and General Structural Repairs described in the Specifications and shown on the Construction Plans for the following unit prices provided in the Bid Schedule (Unit Prices) below.

Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

**BID SCHEDULE (UNIT PRICES)  
BID NO. '18/10/B**

Item No.	Estimated Quantity	Brief Description of Item With Unit Bid Price in Words	Unit Bid Price In Figures
1.	L.S.	Mobilization and Demobilization.  _____ Dollars and Cents per lump sum.	\$
2.	195 L.F.	Tunnel Curb Modification  _____ Dollars and Cents per linear foot.	\$
3.	40 L.F.	Misc. Tunnel Column Repairs  _____ Dollars and Cents per linear foot.	\$
4.	60 L.F.	Misc. Tunnel Beam Repairs  _____ Dollars and Cents per linear foot.	
5.	L.S.	Hopper Structural Repairs  _____ Dollars and Cents per lump sum.	\$
6.	90 L.F.	Wall Steel Plate Repairs  _____ Dollars and Cents per lump sum.	\$
7.	2,650 S.F.	Concrete Floor Repairs  _____ Dollars and Cents per lump sum.	\$



6. Security in the sum of five (5) percent of the amount of the bid in form of (check one):

\_\_\_\_\_ Bid Bond \_\_\_\_\_ Certified Check

is attached hereto in accordance with the “Instructions for Bidders”.

7. This Bid Form contains the following:

- A. Bid Proposal;
- B. Bid Form, subcontractor/material list, and acknowledgement of Addenda, if any;
- C. Bid Bond or Check for Bid Security;
- D. Non-Collusion Affidavit of Prime Bidder;
- E. Non-Collusion Affidavit of Subcontractor(s);
- F. Certification of Nonsegregated Facilities;
- G. Certification of Bidder regarding Equal Employment Opportunity;
- H. Certification of Subcontractor regarding Equal Employment Opportunity; and
- I. Resident Veteran Contractor / Resident Contractor / Local Contractor Certification (if applicable).

**TWO COMPLETE COPIES OF THE BID SUBMITTAL IS REQUIRED**

Respectfully Submitted:

Name of Bidder \_\_\_\_\_

By: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Official Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone No.: \_\_\_\_\_

New Mexico Contractor's License Number and Types:

Contractor's CRS Number: \_\_\_\_\_

Federal Tax ID No. (EIN):

New Mexico State Residence Preference Certification Number

if any: \_\_\_\_\_



**RESIDENT VETERAN CONTRACTOR / RESIDENT CONTRACTOR /  
LOCAL CONTRACTOR CERTIFICATION**

Check Here If Bidder Has Submitted:

\_\_\_ A copy of a valid resident veteran contractor certificate with its bid to receive a resident veteran contractor preference pursuant to Section 13-4-2 NMSA 1978. If checked, please select appropriate preference based upon annual revenues:

\_\_\_ A bid submitted by a resident veteran contractor with annual revenues of one million dollars (\$1,000,000) or less shall be deemed to be ten percent (10%) less than the bid actually submitted.

\_\_\_ A bid submitted by a resident veteran contractor with annual revenues of more than one million dollars (\$1,000,000) but less than five million dollars (\$5,000,000) shall be deemed to be eight percent (8%) less than the bid actually submitted, subject to the limitation that the preference shall be limited, in any calendar year, to an aggregate of ten million dollars (\$10,000,000) in public works contracts from all resident veteran contractors receiving the preference.

\_\_\_ A bid submitted by a resident veteran contractor with annual revenues of five million dollars (\$5,000,000) or more shall be deemed to be seven percent (7%) less than the bid actually submitted, subject to the limitation that the preference shall be limited, in any calendar year, to an aggregate of ten million dollars (\$10,000,000) in public works contracts from all resident veteran contractors receiving the preference.

\_\_\_ A copy of a valid resident contractor certificate with its bid to receive a resident contractor preference pursuant to Section 13-4-2 NMSA 1978. (Five percent (5%) less than the bid actually submitted.)

\_\_\_ A joint bid by a combination of a resident veteran, resident or nonresident contractor. If checked, state the dollar amount of goods and services that will be provided by each of the joint parties under the contract:

\$ \_\_\_\_\_                      \$ \_\_\_\_\_                      \$ \_\_\_\_\_  
(Non-Resident)                      (Resident)                      (Resident Veteran)

NM Resident Veteran Contractor Number \_\_\_\_\_

NM Department of Workforce Solutions Registration Number \_\_\_\_\_

Bidder declares under penalty of perjury that this statement is true to the best of its knowledge and understands that giving false or misleading statements about material fact regarding this matter constitutes a crime.

## **Section 5 Bid Bond**

**BID BOND**

A. KNOW ALL MEN BY THESE PRESENTS, THAT WE \_\_\_\_\_, hereinafter called the PRINCIPAL, and the \_\_\_\_\_, of \_\_\_\_\_ a Corporation duly organized under the laws of the State of \_\_\_\_\_, and, authorized to do business in the State of New Mexico, hereinafter called the SURETY, as SURETY are held and firmly bound unto the Santa Fe Solid Waste Management Agency, hereinafter called the OBLIGEE, in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying bid, dated \_\_\_\_\_, 2018, (Bid No.'18/10/B) for the construction of the Santa Fe Solid Waste Management Agency, Buckman Road Recycling and Transfer Station - Tipping Floor Rehabilitation and General Structural Repairs, 2600 Buckman Road, Santa Fe, NM 87507.

B. NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

C. SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018.

	_____ BIDDER
	By: _____ (SEAL)
WITNESS _____	PRINCIPAL
	By: _____
WITNESS _____	SURETY
	_____ TITLE



## **Section 6 Supplemental Bid Forms**

**SUPPLEMENTAL BID FORMS**

<b><u>INDEX</u></b>	<b><u>PAGE</u></b>
Non-Collusion Affidavit of Prime Bidder .....	6-3
Non-Collusion Affidavit of Subcontractor(s) .....	6-5
Certification of Non-Segregated Facilities .....	6-6
Certification of Bidder Regarding Equal Employment Opportunity .....	6-7
Certification of Subcontractor Regarding Equal Employment Opportunity .....	6-8

**NON-COLLUSION AFFIDAVIT OF PRIME BIDDER**

STATE OF NEW MEXICO

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn, deposes and says that:

- (1) The undersigned is the \_\_\_\_\_ of \_\_\_\_\_ the Bidder that has submitted the attached Bid Proposal;
- (2) The undersigned is fully informed respecting the preparation and contents of the attached Bid Proposal and of all pertinent circumstances respecting such bid;
- (3) Such bid is genuine and is not a collusive or sham bid;
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Contracting Agency or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(SIGNED) \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2018.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires \_\_\_\_\_

## SUBCONTRACTS

- A. Contractor shall not execute an agreement with any subcontractor or permit any Subcontractor to perform any work included in this contract until Contractor has submitted a Non-Collusion Affidavit from the Subcontractor, which is in substantially the form that follows page 6-5 and has received written approval of such Subcontractor from the Owner.
- B. No proposed Subcontractor shall be disapproved by the Owner except for cause.
- C. Contractor shall be as fully responsible to the Owner for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by them, as Contractor is for the acts and omissions of persons directly employed by Contractor.
- D. Contractor shall cause appropriate provision to be inserted in all subcontracts relative to the work to require compliance by each Subcontractor with the applicable provisions of the Contract for the improvements embraced.
- E. Nothing contained in the Contract shall create any contractual relation between any Subcontractor and the Owner.

**NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR**

STATE OF NEW MEXICO

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn, deposes and says that:

- (1) The undersigned is the \_\_\_\_\_ of \_\_\_\_\_, hereinafter referred to as "Subcontractor".
- (2) The undersigned is fully informed respecting the preparation and contents of the Subcontractor's proposal submitted by Subcontractor to \_\_\_\_\_, Contractor, for certain work in connection with the \_\_\_\_\_ contract pertaining to the \_\_\_\_\_ project in \_\_\_\_\_.
- (3) Such Subcontractors proposal is genuine and is not a collusive or sham proposal.
- (4) Neither Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Contracting Agency or any person interested in the proposed Contract; and
- (5) The price or prices quoted in Subcontractor's proposal are fair and proper and are, not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(SIGNED) \_\_\_\_\_

(PRINT NAME) \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2018.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires \_\_\_\_\_

**CERTIFICATION OF NON-SEGREGATED FACILITIES**

(Applicable to construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity Clause).

The construction Contractor certifies that Contractor does not maintain or provide for its employees any segregated facilities at any of its establishments, and does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The construction Contractor certifies further that Contractor will not maintain or provide for its employees any segregated facilities at any of its establishments, and that Contractor will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The construction Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clock, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreating or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The construction Contractor agrees that (except where Contractor has obtained identical certifications from proposed subcontractors for specific time periods) Contractor will obtain identical certifications from proposed SUBCONTRACTORS prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that Contractor will retain such certifications in its files.

(SIGNED) \_\_\_\_\_

PRINT NAME \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2018.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires \_\_\_\_\_

**CERTIFICATION OF BIDDER REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY  
INSTRUCTIONS**

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract or subcontract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven (7) calendar days after bid opening. No contract shall be awarded unless such report is submitted.

---

**CERTIFICATION OF BIDDER**

Bidder's Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.  
Yes \_\_\_\_\_ No \_\_\_\_\_
2. Compliance reports were required to be filed in connection with such contract or subcontract.  
Yes \_\_\_\_\_ No \_\_\_\_\_

---

Certification: The information above is true and complete to the best of my knowledge and belief.

---

NAME AND TITLE OF SIGNER (PLEASE TYPE)

---

SIGNATURE

---

DATE

**CERTIFICATION OF SUBCONTRACTOR REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY**

**INSTRUCTIONS**

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or perspective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract or subcontract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven (7) calendar days after bid opening. No contract shall be awarded unless such report is submitted.

---

**CERTIFICATION OF SUBCONTRACTOR**

Subcontractor's Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

1. Subcontractor has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.  
Yes \_\_\_\_\_ No \_\_\_\_\_
  
2. Compliance reports were required to be filed in connection with such contract or subcontract.  
Yes \_\_\_\_\_ No \_\_\_\_\_

---

Certification: The information above is true and complete to the best of my knowledge and belief.

---

NAME AND TITLE OF SIGNER (PLEASE TYPE)

---

SIGNATURE

---

DATE



## **Section 7**

# **Agreement between Owner and Contractor**

**SANTA FE SOLID WASTE MANAGEMENT AGENCY**

**AGREEMENT BETWEEN  
OWNER AND CONTRACTOR**

**BUCKMAN ROAD RECYCLING AND TRANSFER STATION  
TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL REPAIRS**

This Agreement, entered into this \_\_\_\_ day of \_\_\_\_\_, 2018, by and between the **SANTA FE SOLID WASTE MANAGEMENT AGENCY**, herein known as the Owner, and \_\_\_\_\_, herein known as Contractor for the following:

PROJECT: Buckman Road Recycling and Transfer Station  
Tipping Floor Rehabilitation and General Structural Repairs

PROJECT No.: '18/10/B

ENGINEER OF RECORD: CDM Smith Inc.  
6001 Indian School Rd NE, Suite 310  
Albuquerque, NM 87110

DISTRIBUTION:

OWNER SANTA FE SOLID WASTE MANAGEMENT AGENCY

CONTRACTOR \_\_\_\_\_

ENGINEER CDM SMITH INC.

USER AGENCY \_\_\_\_\_

OTHER \_\_\_\_\_

**RECITALS**

WHEREAS, the Owner, through its Solid Waste Joint Powers Board, is authorized to enter into a construction contract for the project; and

WHEREAS, the Owner, has let this contract according to the established State and Local Purchasing procedures for contracts of the type and amount let; and

WHEREAS, the Solid Waste Joint Powers Board approved this contract at its meeting of \_\_\_\_\_, 2018.

The OWNER and Contractor agree:

**ARTICLE 1**  
**THE CONTRACT DOCUMENTS**

The Contract Documents consist of this Agreement, the Conditions of the Contract (General, Supplementary, and other Conditions), the Construction Plans, the Specifications, all Addenda issued prior to and all Modifications issued after execution of this Agreement. These documents form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

**ARTICLE 2**  
**THE WORK**

Contractor shall perform all the Work required by the Contract Documents for SFSWMA, Buckman Road Recycling and Transfer Station Tipping Floor Rehabilitation and General Structural Repairs, 2600 Buckman Road, Santa Fe, NM 87507.

**ARTICLE 3**  
**TIME OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

The work to be performed under this Contract shall be commenced not later than ten (10) consecutive calendar days after the date of written Notice to Proceed. Substantial Completion for the Bid Work shall be achieved within ninety (90) calendar days after the date of written Notice to Proceed [the Contract Time] except as hereafter extended by valid written Change Order by the Owner.

**ARTICLE 4**  
**CONTRACT SUM**

The Owner shall pay Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract Sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_).

The Contract Sum is determined as follows:

Base Bid Work	\$ _____
NM Gross Receipts Tax	\$ _____
TOTAL	\$ _____

**ARTICLE 5**  
**PROGRESS PAYMENTS**

Based upon Application for Payment submitted to the Owner by Contractor and Certificates for Payment issued by the Owner, the Owner shall make progress payments on account of the Contract Sum to Contractor as provided in the Contract Documents for the period ending the last day of the month as follows:

Not later than thirty (30) days following the end of the period covered by the Application for Payment, ninety five percent (95%) of the portion of the Contract sum properly allocable to labor, materials, and equipment incorporated in the work and ninety five percent (95%) of the portion of the Contract sum properly allocable to materials and equipment suitably stored at the site or some other location agreed upon in writing for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner; and upon substantial completion of the entire work, a sum sufficient to increase the total payments to ninety-eight percent (98%) of the Contract Sum, less such amounts as the Owner shall determine for all incomplete work and unsettled claims as provided in the Contract Documents.

**ARTICLE 6**  
**LIQUIDATED DAMAGES**

Should Contractor neglect, refuse, or otherwise fail to complete the work within the Contract Period of ninety (90) calendar days or any extension in the Contract thereof, Contractor agrees to pay to the Owner the amount of one thousand dollars (\$1,000) per consecutive calendar day of delay until the work is completed and accepted or until voided pursuant to the provisions of the General Conditions of the Contract, not as a penalty, but as liquidated damages for such breach of the Contract.

**ARTICLE 7**  
**FINAL PAYMENT**

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the Owner to Contractor within twenty-one (21) calendar days after all deficiencies to the Contract document that were noted during the Substantial Completion Inspection and listed on the attachment to the Certificate of Substantial Completion have been corrected, and provided the Contract has been fully performed and a final Certificate for Payment has been issued by the Owner. In addition, Contractor shall provide to the Owner a certified statement of Release of Lien (AIA Document G706A or approved form), Consent of Surety, Warranty from Prime Contractor, Warranties from Suppliers and Manufacturers, training sessions, equipment/operating manuals, and as-built drawings.

**ARTICLE 8**  
**SCHEDULE**

Contractor shall, within five (5) working days after the effective date of Notice to Proceed, prepare and submit five (5) copies of a progress schedule covering project operations for the Contract Period of ninety (90) calendar days for the Work. This progress schedule shall be of the type generally referred to as a Critical Path Method (CPM), Critical Path Schedule (CPS), and Critical Path Analysis (CPA), and other similar designations. The CPM shall be used to control the timing and sequences of the project. All work shall be done in accordance with the CPM Planning and Scheduling. A written statement of explanation shall be submitted with the

progress schedule. All costs incurred by Contractor to implement the CPM shall be borne by Contractor, and are part of their contract.

**ARTICLE 9**  
**GENERAL AND SPECIAL PROVISIONS**

- 9.1 This Agreement shall be governed exclusively by the provisions hereof and by the laws of the State of New Mexico as the same from time to time exist.
- 9.2 Terms used in this agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.
- 9.3 Contractor shall defend, indemnify, and hold harmless the Owner against any and all injury, loss, or damage, including, without limitation, cost of defense, court costs and attorney's fees arising out of the acts, errors, or omissions of Contractor.
- 9.4 An enumeration of Contractor's Liability Insurance requirements appears in the General Conditions of the Contract for construction. Insurance requirements are also described in the Instructions to the Bidder section of the Project Manual. Contractor shall maintain adequate insurance in at least the aggregate maximum amounts which the Owner could be liable under the New Mexico Tort Claims Act and shall provide proof of such insurance coverage to the SFWMA. It is the sole responsibility of Contractor to be in compliance with the law.
- 9.5 This Agreement shall not become effective until: (1) approved by the SFSWMA signed by all parties required to sign this Agreement.
- 9.6 Contractor and Contractor's agents and employees are independent contractors performing professional and technical services for the Owner and are not employees of the Owner. Contractor and Contractor's agents and employees shall not accrue leave, retirement, insurance, bonding, use of Owner's vehicles, or any other benefits afforded to employees of the Owner as a result of this Agreement.
- 9.7 Contractor shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the Owner.
- 9.8 Contractor shall maintain detailed time records, which indicate the date, time and nature of services rendered. These records shall be subject to inspection by the Owner, the Department of Finance and Administration and the State Auditor. The Owner shall have the right to audit the billing both before and after payment; payment under this Agreement shall not foreclose the right of the Owner to recover excessive illegal payments.
- 9.9 The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the Owner for the performance of this Agreement. If sufficient appropriations and authorization are not made by the Owner, this Agreement shall terminate upon written notice being given by the Owner to Contractor. The Owner's decision as to whether sufficient appropriations are available shall be accepted by Contractor and shall be final.
- 9.10 Contractor warrants that Contractor presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance or services required under this Agreement.

- 9.11 Contractor hereby warrants that Contractor is in compliance with the Americans with Disabilities Act, 29 CFR 1630.
- 9.12 Contractor, upon final payment of the amounts due under this Agreement, releases the Owner, the Owner's officers and employees, and SFSWMA from all liabilities and obligations arising from or under this Agreement, including, without limitation, to all damages, losses, costs, liability, and expenses, including, without limitation, to attorney's fees and costs of litigation that Contractor may have.
- 9.13 Contractor agrees not to purport to bind the Owner to any obligation not assumed herein by the Owner, unless Contractor has express written authority to do so, and then only within the strict limits of that authority.
- 9.14 Notices. Any and all notices provided for hereunder shall be in writing and shall be deemed delivered, given and received when (i) personally delivered, or (ii) five (5) days after the same are deposited in the United States mail, postage prepaid, registered or certified mail, return receipt requested, addressed to the applicable party at the address indicated below for such party, or at such other address as may be designated by either party in a written notice to the other party.

**OWNER:** Santa Fe Solid Waste Management Agency  
Attn: Mr. Randall Kippenbrock, P.E., Executive Director  
149 Wildlife Way  
Santa Fe, NM 87506

**CONTRACTOR:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

New Mexico Contractor License No. \_\_\_\_\_

- 9.15 Gender, Singular/Plural. Words of any gender used in this Agreement shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires.
- 9.16 Captions and Section Headings. The captions and section headings contained in this Agreement are for convenience of reference only, and in no way limit, define, or enlarge the terms, scope and conditions of this Agreement.
- 9.17 This document shall be executed in no less than five (5) counterparts, each of which shall be deemed an original.
- 9.18 Certificates and Documents Incorporated. All certificates and documentation required by the provisions of the Agreement shall be attached to this Agreement at the time of execution, and are hereby incorporated by reference as though set forth in full in this Agreement to the extent they are consistent with its conditions and terms.
- 9.19 Separability. If any clause or provision of this Agreement is illegal, invalid or

- unenforceable under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.
- 9.20 Waiver. No provision of this Agreement shall be deemed to have been waived by either party unless such waiver be in writing signed by the party making the waiver and addressed to the other party; nor shall any custom or practice which may evolve between the parties in the administration of the terms hereof be construed to waive or lessen the right of either party to insist upon the performance by the other party in strict accordance with the terms hereof. Further, the waiver by any party of breach by the other party of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach of the same or any other term, covenant, or condition thereof.
- 9.21 Entire Agreement. This Agreement represents the entire Contract between the parties and, except as otherwise provided herein, may not be amended, changed, modified, or altered without the written consent of the parties hereto. This Agreement incorporates all of the conditions, agreements, and understandings between the parties concerning the subject matter of this Contract, and all such conditions, understandings, and agreements have been merged into this written Agreement. No prior conditions, agreements, or understandings, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this written Agreement.
- 9.22 Interchangeable Terms. For purposes of all provisions within this Agreement and all attachments hereto, the terms "Agreement" and "Contract" shall have the same meaning and shall be interchangeable.
- 9.23 Words and Phrases. Words, phrases, and abbreviations which have well-known technical or trade meanings used in the Contract documents shall be used according to such recognized meaning. In the event of a conflict, the more stringent meaning shall govern.
- 9.24 Relationship of Contract Documents. The Contract Documents are complementary, and any requirement of one contract document shall be as binding as if required by all.
- 9.25 Pursuant to Section 13-1-191, NMSA 1978, reference is hereby made to the Criminal Laws of New Mexico (including Sections 30-14-1, 30-24-2, and 30-41-1 through 30-41-3, NMSA 1978) which prohibit bribes, kickbacks, and gratuities, the violation of which constitutes a felony. Further, the Procurement Code (Sections 13-1-28 through 13-1-199, NMSA 1978) imposes civil and criminal penalties for its violation.
- 9.26 By entering into this Agreement, the parties do not intend to create any right, title or interest in or for the benefit of any person other than the Owner and Contractor. No person shall claim any right, title of interest under this Agreement or seek to enforce this Agreement as a third-party beneficiary of this Agreement.

9.27 This Agreement is entered into as of the day and year first written above.

**SANTA FE SOLID WASTE MANAGEMENT AGENCY - JOINT POWERS BOARD**

---

ANNA HAMILTON  
CHAIRPERSON

**ATTEST:**

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GERALDINE SALAZAR  
SANTA FE COUNTY CLERK

**CONTRACTOR:**

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**APPROVED AS TO FORM:**

---

NANCY R. LONG  
SFSWMA ATTORNEY



## **Section 8 Performance Bond**

**PERFORMANCE BOND**

A. KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_ (here insert the name and address or legal title of Contractor) as Principal, hereinafter called Contractor, and \_\_\_\_\_ (here insert the legal title of Surety) as Surety, hereinafter called Surety, are held firmly bound unto the Santa Fe Solid Waste Management Agency as Obligee, hereinafter called Owner, in the amount of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

B. WHEREAS, Contractor has by written agreement dated, \_\_\_\_\_, 2018, entered into a Contract with the Santa Fe Solid Waste Management for the \_\_\_\_\_ in accordance with Construction Plans and Specifications prepared by the Owner which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

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

1. The Surety hereby waives notice of any alteration or extension of time made by the Owner.
2. Whenever Contractor shall be, and declared by the Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default or shall promptly:
  - a. Complete the Contract in accordance with its terms and conditions or
  - b. Obtain a bid or bids for submission to Owner for completing the Contract in accordance with its terms and conditions, and upon determination by Owner and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as work progresses (even though there should be a default or a secession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price, but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price" as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.
3. Any suit under this bond must be instituted before the expiration of two (2) years

from the date on which final payment under the contract falls due.

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

(SIGNED) \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

---

**NOTARY PUBLIC**

My Commission Expires \_\_\_\_\_

---

**CONTRACTOR- PRINCIPAL**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Approved as to form:

**SURETY**

Title: \_\_\_\_\_

Countersigned: \_\_\_\_\_

Surety's Authorized New Mexico Agent

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## **Section 9 Labor and Material Payment Bond**

**LABOR AND MATERIAL PAYMENT BOND**

A. KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_  
(HERE INSERT THE NAME AND ADDRESS OR LEGAL TITLE OF CONTRACTOR) as  
Principal, hereinafter called Principal, and \_\_\_\_\_

\_\_\_\_\_  
(HERE INSERT THE LEGAL TITLE OF SURETY)

As Surety, hereinafter called Surety, are held and firmly bound unto the Santa Fe Solid Waste Management Agency as Obligee, hereinafter called Owner, for the use and benefits of claimants as herein below defined, in the amount of \_\_\_\_\_  
DOLLARS, (\$\_\_\_\_\_) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

B. WHEREAS, Principal has by written agreement dated \_\_\_\_\_,  
2018 entered into a contract with the Santa Fe Solid Waste Management Agency for the

\_\_\_\_\_  
in accordance with Construction Plans and Specifications prepared by the Santa Fe Solid Waste Management Agency, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

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

1. A claimant is defined as one having a direct contract with the principal or with a subcontractor of the principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above-named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for payment of any cost or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
  - a. Unless claimant, or other than one having a direct contract with the principal, shall have written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such said claim is made, stating

- with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed.
- b. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or revised in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such services need not be made by a public officer.
  - c. After the expiration of one (1) year following the date on which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
  - d. Other than in a state court of competent jurisdiction in and for the Owner or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall not be reduced by and to the extent of any payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED on \_\_\_\_\_, 2018

In the presence of:

\_\_\_\_\_  
**NOTARY PUBLIC**

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
**NAME OF COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
**SURETY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Countersigned:

\_\_\_\_\_  
Surety's Authorized New Mexico Agent

This bond is issued simultaneously with performance bond in favor of contracting agency for the faithful performance of the contract.



## **Section 10 General Conditions**

## NOTICE

This document has been prepared by the staff of the Owner for use in construction projects.

DOCUMENT - SECTION 00710

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

**NOTE: THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES; CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.**

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**ARTICLE 1**

**CONTRACT DOCUMENTS**

**1.1 DEFINITIONS**

**1.1.1 THE CONTRACT DOCUMENTS**

The Contract Documents consist of the Owner-Contractor Agreement, the Conditions of the Contract (General, Supplementary, and Other Conditions), the Construction Plans, the Specifications, and all Addenda issued prior to and all Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a written interpretation issued by the Engineer pursuant to Subparagraph 2.2.6, or (4) a written order for a minor change in the work issued by the Engineer pursuant to Paragraph 12.4. The Contract Documents do not include Bidding Documents such as the Advertisement or Invitation to Bid, the Instructions to Bidders, sample forms, Contractor's bid, or portions of Addenda relating to any of these, or any other documents, unless specifically enumerated in the Owner-Contractor Agreement.

**1.1.2 THE CONTRACT**

The Contract Documents form the Contract for Construction. This Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.1. The Contract Documents shall not be construed to create any contractual relationship of any kind between the Engineer and Contractor, but the Engineer shall be entitled to performance of obligations intended for its benefit, and to enforcement thereof. Nothing contained in the Contract Documents shall create any contractual relationship between the Owner or the Engineer and any Subcontractor or Sub-subcontractor.

**1.1.3 THE WORK**

The Work comprises the design and completed construction required by the Contract Documents, and includes design specifications, and all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

**1.1.4 THE PROJECT**

The Project is the total design and construction of which the work performed under the Contract Documents may be the whole or a part.

**1.2 EXECUTION, CORRELATION AND INTENT**

1.2.1 No fewer than five (5) copies of the Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign the Conditions of the Contract, Construction Plans, Specifications, or any of the other Contract Documents, the Engineer shall identify such Documents.

1.2.2 By executing the Contract, Contractor represents that Contractor has visited the site, familiarized itself with the local conditions under which the work is to be performed, and correlated its observations with the requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefrom as being

necessary to produce the intended results. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings. In the event of a conflict between the Contract Documents, the more stringent requirements shall govern.

- 1.2.4 The organization of the Specifications into divisions, sections and articles, and the arrangement of Construction Plans shall not control Contractor in dividing the work among Subcontractors or in establishing the extent of work to be performed by any trade.

### **1.3 OWNERSHIP AND USE OF DOCUMENTS**

- 1.3.1 All designs, construction plans, technical specifications, notes, and other work developed in the performance of this Contract shall be and remains the sole property of the Owner and may be used on any other work without additional compensation to the Engineer. With respect thereto, the Engineer agrees not to assert any rights and not to establish any claims under the design patent of copyright laws.

## **ARTICLE 2**

### **ENGINEER/ OWNER**

#### **2.1 DEFINITION**

- 2.1.1 The Engineer is the person lawfully licensed to practice Engineering, or an entity lawfully practicing Engineering identified as such in the Owner-Contractor Agreement, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term "Engineer" means the Owner or authorized representative.

#### **2.2 ADMINISTRATION OF THE CONTRACT**

- 2.2.1 The Engineer will provide administration of the Contract as hereinafter described.
- 2.2.2 The Engineer will be the Owner's representative during construction and until final payment is due. The Engineer will advise and consult with the Owner. The Owner's instructions to Contractor shall be forwarded through the Engineer. The Engineer shall have the authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with Subparagraph 2.2.17.
- 2.2.3 The Engineer shall submit to the Owner, for approval, a list of critical inspection points based upon the construction schedule furnished by the Contract (Paragraph 4.11.1). The Engineer and its staff (including the on-site representative, if agreed upon) shall make visits to the site at those critical points and at other times as the Engineer deems appropriate during the progress of the work. Additionally, the Engineer shall familiarize itself with the progress and quality of the work and determine if the work is proceeding in accordance with the Contract Documents. On the basis of on-site observations, as an Engineer, it shall guard the Owner against defects and deficiencies in the construction. Should the Engineer determine that any portion of the work varies from the intent of the Contract Documents it shall immediately notify Contractor and the Owner of the non-compliance and the nature of the work required to correct such non-compliance. The Engineer shall recommend to the Owner, in writing, to issue a "stop work order" for any portion of the work that does not substantially comply with the intent of the Contract Documents, except as follows.
- 2.2.4 The Engineer shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Additionally, the Engineer shall not be responsible for Contractor's failure to carry out the work in accordance with the Contract Documents. The Engineer shall reject work which does not meet or exceed the

standards established by the Contract Documents. Whenever, in Engineer's reasonable opinion, it considers it necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, it will have authority to require special inspection or testing of any work in accordance with the provisions of the Contract Documents whether or not such work be then fabricated, installed or completed.

- 2.2.5 The Engineer shall at all times have access to the work wherever it is in preparation and progress. Contractor shall provide facilities for such access so the Engineer may perform its functions under the Contract Documents.
- 2.2.6 Based on the Engineer's observations and an evaluation of Contractor's Application for Payment, the Engineer will determine the amounts owing to Contractor and will issue Certificates for Payment in such amounts, as provided in Paragraph 9.4.
- 2.2.7 The Engineer will be the interpreter of the requirements of the Contract Documents and the judge of the performance there under by both the Owner and Contractor.
- 2.2.8 The Engineer will render interpretations necessary for the proper execution or progress of the work, with reasonable promptness and in accordance with any time limit agreed upon. Either party to the Contract may make written request to the Engineer for such interpretations.
- 2.2.9 Claims, disputes, and other matters in question between Contractor and the Owner relating to the execution or progress of the work or the interpretation of the Contract Documents shall be referred to the Engineer for decision which it will render in writing within a reasonable time.
- 2.2.10 All interpretations and decisions of the Engineer shall be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of Construction Plans. In its capacity as interpreter and judge, it will endeavor to secure faithful performance by both the Owner and Contractor, will not show partiality to either, and will not be liable for the result of any interpretation or decision rendered in good faith in such capacity.
- 2.2.11 The Engineer's decisions in matters relating to artistic effect may be final if consistent with the intent of the Contract Documents.
- 2.2.12 The Engineer will have authority to reject work which does not conform to the Contract Documents. Whenever, in its opinion, it considers it necessary or advisable for the implementation of the intent of the Contract Documents, it will have authority to require special inspection or testing of the work in accordance with Subparagraph 7.7.2 whether or not such work be fabricated, installed or completed. However, neither the Engineer's authority to act under this Subparagraph 2.2.12, nor any decision made by Engineer in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Engineer to Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the work.
- 2.2.13 The Engineer will review and approve or take other appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and samples, but only for conformance with the design concept of the work and with the information given in the Contract Documents. Such action shall be taken with reasonable promptness so as to cause no delay. The Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- 2.2.14 The Engineer will prepare Change Orders in accordance will Article 12 and will have authority to order minor changes in the work as provided in Subparagraph 12.4.1.
- 2.2.15 The Engineer will conduct inspections to determine the dates of Substantial Completion and Final Completion and forward the dates to the Owner for the Owner's review of written warranties and related documents required by the Contract and assembled by Contractor and will issue a final

Certificate of payment upon compliance with the requirements of Paragraph 9.9

- 2.2.16 If the Owner and Engineer agree, the Engineer will provide one or more Project Representatives to assist the Engineer in carrying out its responsibilities at the site. The duties, responsibilities and limitations of authority of any such Project Representative shall be as set forth in an exhibit to be incorporated in the Contract Documents.
- 2.2.17 The duties, responsibilities and limitations of authority of the Engineer as the Owner's representative during construction as set for in the Contract Documents will not be modified or extended without written consent of the Owner, Contractor and the Engineer.
- 2.2.18 In case of the termination of the employment of the Engineer, the Owner shall appoint an Engineer whose status under the Contract Documents shall be that of the former Engineer.

### **ARTICLE 3**

#### **OWNER**

#### **3.1 DEFINITION**

- 3.1.1 The Owner is the person or entity identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term "Owner" means the Owner or its authorized representative.

#### **3.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER**

- 3.2.1 The Owner shall, at the request of Contractor, at the time of execution of the Owner-Contractor Agreement, furnish to Contractor reasonable evidence that it had made financial arrangements to fulfill its obligations under the Contract. Unless such reasonable evidence is furnished, Contractor is not required to execute the Owner-Contractor Agreement or to commence the work.
- 3.2.2 The Owner shall furnish all surveys describing the physical characteristics, legal limitation and utility locations for the site for the Project, and a legal description of the site.
- 3.2.3 Except as provided in Subparagraph 4.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments, and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- 3.2.4 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the work.
- 3.2.5 Unless otherwise provided in the Contract Documents, Contractor will be furnished, free of charge, all copies of Construction Plans and Specifications reasonable necessary for the execution of the work.
- 3.2.6 The Owner shall forward all instructions to Contractor through the Engineer.
- 3.2.7 The foregoing is in addition to other duties and responsibilities of the Owner enumerated herein and especially those in respect to work by Owner or by Separate Contractors, Payments and Completion, and Insurance in Articles 6, 9 and 11 respectively.

#### **3.3 OWNER'S RIGHT TO STOP THE WORK**

- 3.3.1 If Contractor fails to correct defective work as required by Paragraph 13.2 or persistently fails to carry out the work in accordance with the Contract Documents, the Owner, by a written order

signed personally or by an agent specifically so empowered by the Owner in writing, may order Contractor to stop the work, or any portion thereof, until the cause of such order has been eliminated; however, this right of the Owner to stop the work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of Contractor or any other person or entity, except to the extent required by Subparagraph 6.1.3.

### **3.4 OWNER'S RIGHT TO CARRY OUT THE WORK**

3.4.1 If Contractor defaults or neglects to carry out the work in accordance with the Contract Documents and fails within seven (7) days after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, after seven (7) days following receipt by Contractor of an additional written notice and without prejudice to any other remedy it may have, make good such deficiencies. In such case, an appropriate Change Order shall be issued deducting from the payments then or thereafter due Contractor the cost of correcting such deficiencies, including compensation for the Engineer additional services made necessary by such default, neglect or failure. Such action by the Owner and the amount charged to Contractor are both subject to the prior approval of the Engineer. If the payments then or thereafter due to Contractor are not sufficient to cover such amount, Contractor shall pay the difference to the Owner.

## **ARTICLE 4**

### **CONTRACTOR**

#### **4.1 DEFINITION**

4.1.1 Contractor is the person or entity identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term "Contractor" means Contractor or its authorized representative.

#### **4.2 REVIEW OF CONTRACT DOCUMENTS**

4.2.1 Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any error, inconsistency or omission it may discover. Contractor shall not be liable to the Owner or the Engineer for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents. Contractor shall perform no portion of the work at any time without Contract Documents or, where required, approved Shop Drawings, Product Data or Samples for such portion of the work.

#### **4.3 SUPERVISION AND CONSTRUCTION PROCEDURES**

4.3.1 Contractor shall supervise and direct the work, using its best skill and attention. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.

4.3.2 Contractor shall be responsible to the Owner for the acts and omissions of its employees, Subcontractors and their agents and employees, and other persons performing any of the work under a contract with Contractor.

4.3.3 Contractor shall not be relieved from its obligations to perform the work in accordance with the Contract Documents either by the activities or duties of the Engineer in its administration of the Contract, or by inspections, tests or approvals required or performed under Paragraph 7.8 by persons other than Contractor.

#### **4.4 LABOR AND MATERIALS**

- 4.4.1 Unless otherwise provided in the Contract Documents, Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work, whether or not incorporated or to be incorporated in the work.
- 4.4.2 Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ on the work any unfit person or anyone not skilled in the task assigned to Contractor.

#### **4.5 WARRANTY**

- 4.5.1 Contractor warrants to the Owner and Engineer that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all work will be of good quality, free from faults and conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Engineer, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions in Paragraph 13.2.
- 4.5.2 Contractor shall and hereby does warrant and guarantee all workmanship, labor, and materials performed and supplied by Contractor or its Subcontractors for a period of one (1) year from the date of completion as evidenced by the date of the Engineer's Final Certificate of Payment of this Contract. This also included all labor required for replacing materials or equipment found to be defective with the one (1) year period. All guarantees for a longer period of time required by the work sections of these specifications shall be secured by Contractor from Subcontractors and delivered to the Engineer and are hereby warranted by Contractor as much as if countersigned by Contractor.

#### **4.6 TAXES**

- 4.6.1 Contractor shall pay all sales, consumer gross receipts tax, use and other similar taxes for the work or portions thereof provided by Contractor which are legally enacted at the time bids are received, whether or not yet effective.

#### **4.7 PERMITS, FEES AND NOTICES**

- 4.7.1 Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for the building permit and for all other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the Contract and which are legally required at the time the bids are received.
- 4.7.2 Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the work.
- 4.7.3 It is not the responsibility of Contractor to make certain that the Contract Documents are in accordance with applicable laws, statutes, building codes and regulations. If Contractor observes that any of the Contract Documents are at variance therewith in any respect, Contractor shall promptly notify the Engineer in writing, and any necessary changes shall be accomplished by appropriate Modification.
- 4.7.4 If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, Contractor shall assume full responsibility therefore and shall in turn notify the Owner's Representative of such action.



#### **4.8 ALLOWANCES**

- 4.8.1 Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by these allowances shall be supplied for such amounts and by these allowances shall be supplied for such amounts and by such persons as the Owner may direct, but Contractor will not be required to employ persons against whom Contractor makes a reasonable objection.
- 4.8.2 Unless otherwise provided in the Contract Documents:
- A. These allowances shall cover the cost to Contractor, less any applicable trade, discount of the materials and equipment required by the allowance delivered at the site, and all applicable taxes;
  - B. Contractor's costs for unloading and handling on the site, labor, installations costs, overhead, profit and other expenses contemplated for the original allowance shall be included in the Contract Sum and not in this allowance;
  - C. Whenever the cost is more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order, the amount of which will recognize changes, if any, in handling costs on the site, labor, installation costs, overhead, profit and other expenses.

#### **4.9 SUPERINTENDENT**

4.9.1 Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the project site during the progress of the work. The Superintendent shall represent Contractor, and all communications given to the Superintendent shall be as binding as if given to Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case.

#### **4.10 PROGRESS SCHEDULES**

- 4.10.1 Contractor shall, within five (5) working days after the effective date of Notice to Proceed, furnish five copies of a preliminary progress schedule covering its operations for the first ninety (90) days. The preliminary progress schedule shall be a bar graph or an arrow diagram showing the items Contractor intends to commence and complete the various work stages, operations, and contract means planned to be started during the first ninety (90) days.
- 4.10.2 Unless otherwise specified in the Special Provisions, Contractor shall submit for approval by the Engineer, within five (5) working days after the effective date of Notice to Proceed, five copies of a critical-path-type analysis. The critical-path-type analysis shall include as a minimum; a graphic network diagram; a computer printout or list of activities; and a brief written explanation of the proposed schedule.
- 4.10.3 The graphic network diagram shall consist of an arrow diagram or a geometric figure and connector diagram which clearly depicts the major subdivisions of the work, the order and interdependencies of activities planned by Contractor, as well as, activities by others which affect Contractor's planning. The intended time for starting and completing each activity, the associated float time and the quantity and kinds of major equipment to be used shall be shown for each construction operation. For those activities lasting more than thirty (30) days, either the estimated time for 25-50 and 75 percent completion or other significant milestones in the course of the activity, shall be shown. In addition to the actual construction operations, the network diagram shall show such items as submittal of samples and Shop Drawings, delivery of materials and equipment, construction in the area by other forces, traffic detour controls, and other significant items related to the progress of construction. The graphic network diagram shall be printed or neatly and legibly drawn to a linear scale.

- 4.10.4 Activities shown shall be coordinated insofar as possible with the Contract Bid items, types of work and maximum number of activities of each type.
- 4.10.5 The computer printout or list of activities shall show for each activity the estimated duration, the earliest starting and finishing dates, the latest starting and finishing dates, and float or slack time. Activities which constitute the critical sequence shall be identified showing total job duration equal to the Contract Time.
- 4.10.6 The written explanation shall contain sufficient information to describe the construction methods to be used and to enable the Engineer to evaluate the schedule and supporting analysis for validity and practicability. If the schedule or written explanation is not accepted by the Owner, Contractor shall resubmit the rejected items within ten (10) days after rejection.
- 4.10.7 The analysis may employ the use of an electric computer or may consist of a non-computer analysis if the latter is suitable to analyze the number of activities required. The adequacy of the system selected shall be acceptable to the Engineer.
- 4.10.8 Contractor shall submit to the Engineer monthly progress status reports on dates directed by the Engineer. Such reports shall list those uncompleted activities which have less than thirty (30) days float and which are either in progress or scheduled to be started within the next reporting period. For each of the listed activities, the following shall be shown:
- A. Starting date scheduled in last critical-path-analysis.
  - B. Actual or intended starting date.
  - C. Revised activity duration, if any.

If the noted starting dates or duration delay the scheduled project completion date, the delay shall be named. Reasons for the delay shall be given with an explanation of Contractor's proposed corrective action. The Contract shall also note each activity completed during the report period.

- 4.10.9 A revised critical-path-type analysis shall be submitted when one or more of the following conditions occur:
- A. When an approved change Order significantly affects the contract completion date, or the sequence of activities.
  - B. When progress of any critical activity falls significantly behind the scheduled progress.
  - C. When delay on a non-critical activity is of such magnitude as to change the course of the critical path.
  - D. At any time Contractor elects to change any sequence of activities affecting the critical path.

The revised analysis shall be made in the same form and detail as the original submittal and shall be accompanied by an explanation of the reasons for the revisions.

- 4.10.10 Contractor shall prosecute the work in accordance with the latest critical path type analysis. Deviations therefrom shall be submitted to the Engineer for review. In the event that the progress of items along the critical path is delayed, Contractor shall revise its planning to include additional forces, equipment, shifts or hours necessary to meet the contract completion date. All additional cost resulting therefrom will not be borne by the Owner.

**4.11 DOCUMENTS AND SAMPLES AT THE SITE**

- 4.11.1 Contractor shall maintain at the site, for the Owner, one record copy of all Construction Plans, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data and Samples. These shall be available to the Owner upon completion of the work.

**4.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

- 4.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the work by Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.
- 4.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by Contractor to illustrate a material, product or system for some portion of the work.
- 4.12.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the work will be judged.
- 4.12.4 Contractor shall review, approve and submit, with reasonable promptness and in such sequence as to cause no delay in the work or in the work of the Owner of any separate Contractor, all Shop Drawings, Product Data and Sample required by the Contract Documents.
- 4.12.5 By approving and submitting Shop Drawings, Product Data and Samples, Contractor represents that it has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that it has checked and coordinated the information contained within such submittals with the requirements of the work and of the Contract Documents.
- 4.12.6 Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data or Samples under Subparagraph 2.2.13 unless Contractor has specifically informed the Engineer in writing of such deviation at the time of submission and the Engineer has given written approval to the specific deviation. Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples by the Engineer approval thereof.
- 4.12.7 Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Engineer on previous submittals.
- 4.12.8 No portion of the work requiring submission of a Shop Drawing, Product Data or Sample shall be commenced until the submittal has been approved by the Engineer as provided in Subparagraph 2.2.13. All such portions of the work shall be in accordance with approved submittals.

**4.13 USE OF SITE**

- 4.13.1 Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not reasonably encumber the site with any materials or equipment.
- 4.13.2 Contractor shall hold and save the Owner free and harmless from liability of any nature or kind arising from use, trespass or damage occasioned by third persons.

**4.14 CUTTING AND PATCHING OF WORK**

- 4.14.1 Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the work or to make its several parts fit together properly.

- 4.14.2 Contractor shall not damage or endanger any portion of the work or the work of the Owner or any separate contracts by cutting, patching or otherwise altering any work, or by excavation. Contractor shall not cut or otherwise alter the work of the Owner or any separate Contractor except with the written consent of the Owner and of such separate Contractor. Contractor shall not unreasonably withhold from the Owner any separate Contractor its consent to cutting or otherwise altering the work.

#### **4.15 CLEANING UP**

- 4.15.1 Contractor at all times shall keep the premises free from accumulation of waste materials (e.g., concrete), trash or debris caused by its operations. At the completion of the work, Contractor shall remove all its waste materials, trash and debris from and about the Project as well as all its tools, construction equipment, machinery and surplus materials.
- 4.15.2 If Contractor fails to clean up at the completion of the work, the Owner may do so as provided in Paragraph 3.4, and the cost thereof shall be charged to Contractor.
- 4.15.3 Contractor shall be solely responsible for performance of the following clean up as they apply:
- A. Debris: Regardless of the nature of the debris, it shall be immediately cleared from the work area. Each trade shall cooperate with other trades in the removal of debris and in keeping a clean job throughout.

#### **4.16 COMMUNICATIONS**

- 4.16.1 Contractor shall forward all communications to the Owner through the Engineer.

#### **4.17 ROYALTIES AND PATENTS**

- 4.17.1 Contractor shall pay all royalties and license fees. Contractor shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified; but if Contractor has reason to believe that the design, process or product specified is an infringement of a patent, Contractor shall be responsible for such loss unless it promptly gives such information to the Engineer.

#### **4.18 INDEMNIFICATION**

- 4.18.1 To the fullest extent permitted by law, Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (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 on Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such negligent shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnify which would otherwise exist as to any party or person described in this Paragraph 4.18.
- 4.18.2 In any and all claims against the Owner or the Engineer or any of their agents or employees by an employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.18 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any Subcontractor under

workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

- 4.18.3 The obligation of Contractor under this Paragraph 4.18 shall not extend to the liability of the Engineer, its agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, or (2) the giving of or the failure to give directions by the Engineer, its agents or employees, provided such giving or failure to give is the primary cause of the injury or damage.

## **ARTICLE 5**

### **SUBCONTRACTOR**

#### **5.1 DEFINITION**

- 5.1.1 A Subcontractor is a person or entity who has a direct contract with Contractor to perform any of the work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or its authorized representative. The term "Subcontractor" does not include any separate Contractor or its Subcontractors.
- 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the work at the Site.

#### **5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK**

- 5.2.1 Unless otherwise required by the Contract Documents of the Bidding Documents, Contractor, as soon as practicable after the award of the Contract, shall furnish to the Owner and the Engineer in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the work. The Engineer will promptly reply to Contractor in writing stating whether or not the Owner or the Engineer, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or the Engineer to reply promptly shall constitute notice of no reasonable objection.
- 5.2.2 Contractor shall not contract with any such proposed person or entity to whom the Owner or the Engineer has made reasonable objection under the provisions of Subparagraph 5.2.1. Contractor shall not be required to contract with anyone to whom it has a reasonable objection.

#### **5.3 SUBCONTRACTUAL RELATION**

- 5.3.1 By an appropriate written agreement, Contractor shall require each Subcontractor, to the extent of the work to be performed by the Subcontractor, to be bound to Contractor by the terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor, by these Documents, assumes toward the Owner and the Engineer. Said agreement shall preserve and protect the rights of the Owner and the Engineer under the Contract Documents with respect to the work to be performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in Contractor-Subcontractor agreement, the benefit of all rights, remedies and redress against Contractor that Contractor, by these Documents, has against the Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with its Sub-subcontractors. Contractor shall make available to each proposed Subcontractor, prior to the execution of the Subcontract, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph 5.3, and identify the Subcontractor any terms and conditions of the proposed Subcontract which may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Documents available to its

Subcontractors.

**ARTICLE 6**

**WORK BY OWNER OR BY SEPARATE CONTRACTORS**

**6.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS**

- 6.1.1 The Owner reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract. If Contractor claims that delay or additional cost is involved because of such action by the Owner, it shall make such claim as provided elsewhere in the Contract Documents.
- 6.1.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term "Contractor" in the Contract Documents in each case shall mean Contractor who executes each separate Owner-Contractor Agreement.
- 6.1.3 The Owner will provide for the coordination of the work of its own forces and of each separate Contractor with the work of Contractor, who shall cooperate therewith as provided in paragraph 6.2.

**6.2 MUTUAL RESPONSIBILITY**

- 6.2.1 Contractor shall afford the Owner and the Separate Contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate its work with theirs as required by the Contract Documents.
- 6.2.2 If any part of Contractor's work depends for proper execution or results upon the work of the Owner or any separate Contractor, Contractor shall, prior to proceeding with the work, promptly report to the Engineer any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of Contractor so to report shall constitute an acceptance of the Owner's or the separate Contractor's work as fit and proper to receive its work, except as to defects which may subsequently become apparent in such work by others.
- 6.2.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible thereof.
- 6.2.4 Should Contractor wrongfully cause damage to the work or property of the Owner or to other work on the site, Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5.
- 6.2.5 Should Contractor wrongfully cause damage to the work or property of any separate Contractor, Contractor shall upon due notice promptly attempt to settle with such other Contractor by agreement, or otherwise to resolve the dispute. If such separate Contractor sues or initiates an arbitration proceeding against the Owner on account of any damage alleged to have been cause by Contractor, the Owner shall notify Contractor, who shall defend such proceedings at the Owner's expense, and if any judgment or award against the Owner arises therefrom, Contractor shall pay or satisfy it and shall reimburse the Owner for all attorneys' fees and court or arbitration costs which the Owner has incurred.

**6.3 OWNER'S RIGHT TO CLEAN UP**

- 6.3.1 If a dispute arises between Contractors and separate Contractors as to their responsibility for cleaning up as required by Paragraph 4.15, the Owner may clean up and charge the cost thereof to Contractors responsible therefor as the Engineer shall determine to be just.

**ARTICLE 7**

**MISCELLANEOUS PROVISIONS**

**7.1 GOVERNING LAW**

- 7.1.1 The Contract shall be governed by the law of the State of New Mexico.
- 7.1.2 The Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements, and obligations contained in the Contract Documents. Neither part to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall Contractor assign any moneys due or to become due to Contractor thereunder, without the previous written consent of the Owner.

**7.2 WRITTEN NOTICE**

- 7.2.1 Written notice shall be deemed to have dully served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to it who gives the notice.

**7.3 CLAIMS FOR DAMAGES**

- 7.3.1 Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or of any of its employees, agents or others for whose acts it is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

**7.4 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND**

- 7.4.1 Contractor to whom the Contract is awarded shall furnish and pay for reputable and approved Performance and Labor and Material Payment Bonds, each for the full amount of the Contract Sum. Bonds shall be executed on standard AIA forms.

**7.5 RIGHTS AND REMEDIES**

- 7.5.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- 7.5.2 No action or failure to act by the Owner, the Engineer, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

**7.6 TESTS**

- 7.6.1 If the Contract Document, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the work to be inspected, tested or approved, Contractor shall give the Engineer timely notice of its readiness so the Engineer may observe such inspection, testing or approval. Contractor shall bear all costs of such inspections, tests or approvals. Tests specifically called for by specifications shall be made by a professional testing laboratory acceptable to the Engineer, and Contractor shall employ same and pay all charges in connection



therewith. Records of tests shall be delivered to the Engineer in duplicate on acceptable forms.

- 7.6.2 If the Engineer determines that any work requires special inspection, testing, or approval which Subparagraph 7.6.1 does not include, it will, upon written authorization from the Owner, instruct Contractor to order such special inspection, testing or approval, and Contractor shall give notice as provided in Subparagraph 7.6.1. If such special inspection or testing reveals a failure of the work to comply with the requirements of the Contract Documents, Contractor shall bear all costs thereof, including compensation for the Engineer's additional services made necessary by such failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

## **7.7 INTEREST**

- 7.7.1 The Owner will not pay interest on payments due and unpaid under the Contract Document.

## **ARTICLE 8**

### **TIME**

## **8.1 DEFINITIONS**

- 8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.
- 8.1.2 The date of commencement of the work is the date established in a Notice to Proceed. If there is no Notice to Proceed, it shall be the date of the Owner-Contractor Agreement or such other date as may be established therein.
- 8.1.3 The Date of Substantial Completion of the work or designated portion thereof is the Date certified by the Engineer and approved by the Owner when construction is deficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the work or designated portion thereof for the use for which it is intended.
- 8.1.4 The term "day" as used in the Contract Document shall mean calendar day unless otherwise specifically designated.

## **8.2 PROGRESS AND COMPLETION**

- 8.2.1 All time limits stated in the Contract Documents are the essence of the Contract.
- 8.2.2 Contractor shall begin the work on the date of commencement as defined in Subparagraph
- 8.2.3 Contractor shall carry the work forward expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

## **8.3 DELAYS AND EXTENSIONS OF TIME**

- 8.3.1 If Contractor is delayed at any time in the progress of the work by any act or neglect of the Owner or the Engineer or by any employees of either, or by any separate Contractor employed by the Owner or by changes ordered in the work, or by labor disputes, fire, unusual delay in unavoidable casualties, or any causes beyond Contractor's control or by delay authorized by the Owner pending arbitration, or by any other cause which the Engineer determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as the



Engineer may determine.

- 8.3.2 Any claim for extension of time shall be made in writing to the Engineer not more than twenty (20) days after the commencement of the delay; otherwise it shall be waived. In the case of a continuing delay, only one claim is necessary. Contractor shall provide an estimate of the probable effect of such delay on the progress of the work.
- 8.3.3 If written agreement is made stating the dates upon which interpretations as provided in Subparagraph 2.28 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen (15) days after written request is made for them, and not then unless such claim is reasonable.
- 8.3.4 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

## **ARTICLE 9**

### **PAYMENTS AND COMPLETION**

#### **9.1 CONTRACT SUM**

- 9.1.1 The Contract Sum is stated in the Owner-Contractor Agreement and including authorized adjustments thereto, is the total amount payable by the Owner to Contractor for the performance of the work under the Contract Documents.

#### **9.2 SCHEDULE OF VALUES**

- 9.2.1 Before the first Application for Payment, Contractor shall submit to the Engineer a schedule of values allocated to the various portion of the work, prepared in such form and supported by such data to substantiate its accuracy as the Engineer may require. This schedule, unless objected to by the Engineer, shall be used only as a basis for Contractor's Applications for payment.

#### **9.3 APPLICATIONS FOR PAYMENT**

- 9.3.1 At least ten (10) days before the date for each progress payment established in the Owner-Contractor Agreement, Contractor shall submit to the Engineer an itemized Application for Payment, notarized if required, supported by such data substantiating Contractor's right to payment.
- 9.3.2 Unless otherwise provided in the Contract Documents, payments will be made on account of materials or equipment not incorporated in the work but delivered and suitably stored at the site; and, if approved in advance by the Owner payments may similarly be made for materials or equipment suitably stored at some other location agreed upon in writing. Payments for materials or equipment stored on or off the site shall be conditioned upon submission by Contractor of bills of sale or such other procedures satisfactory to the Owner to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest, including applicable insurance and transportation to the site for those materials and equipment stored off the site.
- 9.3.3 Contractor warrants that title to all work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by Contractor, whichever occurs first, free and clear of all liens, claims, security interest or encumbrances hereinafter referred to in this Article 9 as "liens"; and that no work, materials or equipment covered by an Application for Payment will have been acquired by Contractor, or by any other person performing work at the site or furnishing materials or equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by Contractor or such other person.

#### **9.4 CERTIFICATES FOR PAYMENT**

- 9.4.1 The Engineer will within seven (7) days after the receipt of the Contract's Application for Payment, either issue a Certificate for Payment to the Owner with a copy to Contractor for such amount as the Engineer determines is properly due, or notify Contractor in writing of its reasons for withholding a Certificate as provided in Subparagraph 9.6.1.
- 9.4.2 The issuance of Certificate for Payment will constitute a representation by the Engineer to the Owner, based on its observations at the site as provided in Subparagraph 2.2.3 and the data comprising the Application for Payment, that the work has progressed to the point indicated; that, to the best of its knowledge, information and belief, the quality of the work is in accordance with the Contract Documents (subject to an evaluation of the work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents correctable prior to completion, and to any specific qualifications stated in its Certificate); and that Contractor is entitled to payment in the amount certified. However, by issuing a Certificate for Payment, the Engineer shall not thereby be deemed to represent that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the work or that it has reviewed the construction means, methods, techniques, sequences or procedures, or that it has made any examination to ascertain how or for what purpose Contractor has used the moneys previously paid on account of the Contract Sum.

#### **9.5 PROGRESS PAYMENTS**

- 9.5.1 After the Engineer has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents.
- 9.5.2 Contractor shall promptly pay each Subcontractor upon receipt of payment from the Owner, out of the amount paid to Contractor on account of such Subcontractor's work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to Contractor on account of such Subcontractor's work. Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payment to its Subcontractors in similar manner.
- 9.5.3 The Engineer may, on request and at its discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by Contractor on the action taken thereon by the Engineer on account of work done by such Subcontractor.
- 9.5.4 Neither the Owner nor the Engineer shall have any obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.
- 9.5.5 No Certificate for progress payment, no progress payment, nor any partial or entire use of occupancy of the Project by the Owner shall constitute an acceptance of any work not in accordance with the Contract Documents.

#### **9.6 PAYMENT WITHHELD**

- 9.6.1 The Engineer may decline to certify payment and may withhold its Certificate in whole or in part, to the extent necessary to reasonably protect the Owner, if in its opinion it is unable to make representations to the Owner as provided in Subparagraph 9.4.2.
- 9.6.2 If the Engineer is unable to make representations to the Owner, as provided in Subparagraph 9.4.2 and to certify payment in the amount of the Application, it will notify Contractor as provided in Subparagraph 9.4.1. If Contractor and Engineer cannot agree on a revised amount, the Engineer will promptly issue a Certificate for Payment for the amount for which it is able to make such

representations to the Owner. The Engineer may also decline to certify payment, or because of subsequently discovered evidence or subsequent observations, it may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary in its opinion to protect the Owner from loss because of:

- A. Defective work not remedied;
- B. Third party claims filed or reasonable evidence indicating probable filing of such claims;
- C. Failure of Contractor or make payments properly to Subcontractors or for labor, materials or equipment;
- D. Reasonable evidence that the work cannot be completed for the unpaid balance of the Contract Sum;
- E. Damage to the work of another Contractor;
- F. Reasonable evidence that the work will not be completed within the Contract Time; or,
- G. Failure to carry out the work in accordance with the Contract Documents.

9.6.2 When the above grounds in Subparagraph 9.6.1 removed, payment shall be made for amounts withheld because of them.

## **9.7 FAILURE OF PAYMENT**

9.7.1 If the Engineer does not issue a Certificate for Payment, through no fault of Contractor, within seven (7) days after receipt of Contractor's Application for Payment, or if the Owner does not pay Contractor within seven (7) days after the date established in the Contract Documents any amount certified by the Engineer, then Contractor may, upon seven (7) additional days' written notice to the Owner and the Engineer, stop the work until payment of the amount owing has been received. The Contract Sum shall be increased by the amount of Contractor's reasonable costs of shut-down, delay and start-up, which shall be effected by appropriate Change Order in accordance with Paragraph 12.3.

## **9.8 SUBSTANTIAL COMPLETION**

9.8.1 When Contractor considers that the work, or a designated portion thereof which is acceptable to the Owner, is substantially complete as defined in Subparagraph 8.1.3, Contractor shall prepare for submission to the Engineer a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of Contractor to complete all work in accordance with the Contract Documents. When the Engineer, with the Owner, on the basis of an inspection determines that the work or designated portion thereof is substantially complete, Contractor will then prepare a Certificate of Substantial Completion Form, AIA Document G704-1978, which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and Contractor for security, maintenance within which Contractor shall complete the items listed therein. Warranties required by the Contract Document shall commence on the date of Final Completion of the work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to Contractor and the Owner for their written acceptance of the responsibilities assigned to them in such Certificate.

9.8.2 Upon Substantial Completion of the work or designated portion thereof and upon application by Contractor and certification by the Engineer, the Owner shall make payment, reflecting adjustment in retainage, if any, for such work or portion thereof, as provided in the Contract Documents.

**9.9 FINAL COMPLETION AND FINAL PAYMENT**

- 9.9.1 Upon receipt of written notice that the work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Engineer will promptly make such inspection and, if Engineer finds the work acceptable under the Contract Documents and the Contract fully performed, Engineer will promptly issue final Certificate for Payment stating that, to the best of its observations and inspections, the work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due Contractor and noted in said Final Certificate, is due and payable. The Engineer's Final Certificate of payment will constitute a further representation that the conditions precedent to Contractor's being entitled to final payment as set forth in Subparagraph 9.9.2 have been fulfilled.
- 9.9.2 Neither the final payment nor the remaining retained percentage shall become due until Contractor submits to the Engineer (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the Owner or its property might in any way be responsible have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment, and (3) if required by the Owner, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designed by the Owner. If any Subcontractor refuses to furnish a release or waiver required by the Owner Contractor may furnish a bond satisfactory to the Owner to indemnify itself against any such lien. If any such lien remains unsatisfied after all payments are made, Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
- 9.9.3 If, after Substantial Completion of the work, final completion thereof is materially delayed through no fault of Contractor or by the issuance of Change Orders affecting final completion, and the Engineer so confirms, the Owner shall, upon application by Contractor and certification by the Engineer and without terminating the Contract, make payment of the balance for that portion of the work fully completed and accepted. If the remaining balance for work not fully completed or corrected is less than the retainage stipulated in the Contract Document, and if bonds have been furnished as provided in Paragraph 7.5, the written consent of the surety to the payment of the balance due for that portion of the work fully completed and accepted shall be submitted by Contractor to the Engineer prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.
- 9.9.4 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:
- A. Unsettled liens;
  - B. Faulty or defective work appearing after Substantial Completion;
  - C. Failure of the work to comply with the requirements of the Contract Documents; and
  - D. Terms of any special warranties required by the Contract Documents.
- 9.9.5 The acceptance of final payment shall constitute a waiver of all claims by Contractor except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment.

**ARTICLE 10**

**PROTECTION OF PERSONS AND PROPERTY**

**10.1 SAFETY PRECAUTIONS AND PROGRAMS**

10.1.1 Contractor shall be responsible in initiating, maintaining and supervising all safety precautions and programs in connection with the work.

**10.2. SAFETY OF PERSONS AND PROPERTY**

10.2.1 Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

- A. All employees on the work and all other persons who may be affected thereby;
- B. All the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of Contractor or any of its Subcontractors or Sub-subcontractors; and
- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities no designated for removal, relocation or replacement in the course of construction.

10.2.2 Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.3 Contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Owners and users of adjacent utilities.

10.2.4 When the use of storage of explosives or other hazardous materials or equipment is necessary for the execution of the work, Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.2.5 Contractor shall promptly remedy all damage or loss (other than damage of loss insured under paragraph 11.3) to any property referred to in Clauses 10.2.1.2 and 10.2.1.3 caused in whole or in part by Contractor, any Subcontractor or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which Contractor is responsible under clauses 10.2.1.2 and 10.2.1.3, except damage or loss attributable to the acts or omissions of the Owner or the Engineer or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and no attributable to the fault or negligence of Contractor. The foregoing obligations of Contractor are in addition to its obligations under Paragraph 4.18.

10.2.6 Contractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be Contractor's Superintendent unless otherwise designated by Contractor in writing to the Owner and the Engineer.

10.2.7 Contractor shall not load or permit any part of the work to be loaded so as to endanger its safety.

**10.3 EMERGENCIES**

10.3.1 In any emergency affecting the safety of persons or property, Contractor shall act, at its reasonable

discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by Contractor on account of emergency work shall; be determined as provided in Article 12 for Changes in the work.

## **ARTICLE 11**

### **INSURANCE**

#### **11.1 CONTRACTOR'S LIABILITY INSURANCE**

11.1.1 Contractor shall maintain in effect, and shall require all Subcontractors and others performing any portion of this Contract to maintain in effect, insurance of the types and respective minimum limits set for in Article 11. Such insurance shall cover all operations under this Contract. Maintenance of such insurance in at least the specified minimum amounts shall not relieve Contractor or liability for loss in excess of the limits of liability specified herein or otherwise not covered by the coverage's required herein. Contractor shall bear the cost of such insurance and include its costs in the bid. The following limits of insurance shall be maintained, unless otherwise listed in the Certificate of Insurance.

##### **Type of Required Coverage**

Workman's Compensation - including accident and occupational disease coverage. Statutory Employer's Liability

Comprehensive General Liability - including endorsements providing broad form property damage coverage, personal injury coverage, and contractual assumption of liability coverage for all liability Contractor has assumed under its Contract.

Auto Liability - including non-owned auto coverage.

##### **Minimum Limits of Liability**

Carry such insurance as it deems necessary to protect it from all claims under any workman's compensation law in effect that may be applicable to Contractor.

With limits of coverage in the maximum amount which the Owner could be held liable under the New Mexico Tort Claims Act for each person injured and for each accident resulting in damage to property.

Same limits as General Liability.

11.1.2 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the work. These Certificates shall contain a provision that coverage afforded under the policies will not be canceled until at least thirty (30) days; prior written notice has been given to the Owner. Contractor shall furnish one (1) copy of each of the Certificates of insurance herein required for each copy of the contract.

#### **11.2 OWNER'S LIABILITY INSURANCE**

11.2.1 The Owner shall be responsible for purchasing and maintaining its own liability insurance and, at its option, may purchase and maintain such insurance as will protect itself against all claims which may arise from operations under the Contract.

#### **11.3 PROPERTY INSURANCE**

11.3.1 Contractor shall maintain builder's risk property insurance or self insurance, or a combination of insurance and self insurance, upon the work at the site for at least the actual cash value thereof. The builder's risk insurance shall cover the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the work. The insurance shall insure against at least the following perils: fire extended coverage, vandalism, and malicious mischief. Contractor shall bear the cost of such insurance and include its cost in the bid.

11.3.2 Any loss insured or self insured under Subparagraph 11.3.1 is to be adjusted with the Owner and



made payable to the Owner as trustee for the insured, as their interests may appear subject to the requirements of any applicable mortgage clause. The Owner shall deposit the proceeds in a separate account and shall distribute them in accordance with such agreement as the parties in interest, including the Owner, may reach. Contractor shall pay each Subcontractor a just share of any insurance proceeds which Contractor receives and shall require by written agreement signed by the Subcontractor that the Subcontractor will make payments to its Sub-subcontractors in a similar manner. If after such loss no other special agreement is made, replacement of damaged work shall be covered by an appropriate order.

- 11.3.3 To the extent permitted under their respective property insurance policies, the Owner and Contractor hereby waive all rights, each against the other, for damages caused by fire or other perils to the extent covered by Insurance obtained pursuant to this Article 11 or any other property insurance applicable to the work, except such rights as they may have to the proceeds of such Insurance held by the Owner as trustee. The Owner or Contractor, as appropriate, shall require the Engineer, other Contractors, Subcontractors, and Sub-subcontractors to similarly waive rights of subrogation or property insurers.
- 11.3.4 If the Owner finds it necessary to occupy use of any portion of the work prior to Substantial Completion, such occupancy or use shall not commence prior to the time mutually agreed to by the Owner and Contractor and, if required by the applicable insurance or self insurance coverage not prior to the time the builder's risk property insurer has consented to such occupancy or use. Contractor's consent to such occupancy or use shall not be unreasonably withheld.

#### **11.4 LOSS OF USE INSURANCE**

- 11.4.1 The Owner, at its option, may purchase and maintain such insurance as will insure itself against loss of use of its property due to fire or other hazards, however caused.

### **ARTICLE 12**

#### **CHANGES IN THE WORK**

#### **12.1 CHANGE ORDERS**

- 12.1.1 A Change Order is a written order to Contractor signed by the Engineer and Contractor and approved in writing by the Owner. A Change Order may be issued only after the execution of the Contract and shall be the only means used to order changes in the work for which Contractor requires additional compensation, changes to the Contract Time, or changes to the Contract Sum. Minor changes in the work for which Contractor requires no additional compensation or time shall be executed in accordance with the provision of Subparagraph 12.4.1.
- 12.1.2 The Owner, without invalidating the Contract, may order changes in the work within the general scope of Contractor consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the work shall be authorized by Change Order and shall be performed under the applicable conditions of the Contract Documents.
- 12.1.3 The cost or credit to the Owner resulting from a change in the work shall be determined in one or more of the following ways:
- A. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
  - B. By unit prices stated in the Contract Documents or subsequently agreed upon;
  - C. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

D. By the method provided in Subparagraph 12.1.4.

12.1.4 If none of the methods set forth in Clauses 12.1.2., 12.1.3. or 12.1.3. is agreed upon, Contractor, provided Contractor receives a written order signed by the Owner, shall promptly proceed with the work involved. The cost of such work shall be determined by the Engineer on the basis of the reasonable expenditures and savings of those performing the work attributable to the change, including, in the case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, Contractor shall keep and present, in such form as the Engineer may prescribe, an itemized accounting together with appropriate supporting data for inclusion in a Change Order. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: cost of materials, including sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits, required by agreement or custom, workers' or workmen's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost to the Owner payments on account shall be made on the Engineer's Certificate for payment. The amount of credit to be allowed by Contractor to the Owner for any deletion or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Engineer. When both additions and credits covering related work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any, with respect to that change.

12.1.5 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed Change Order that application of the agreed unit prices to the quantities of work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

12.1.6 By submission of a bid, Contractor agrees and binds itself to the following method of calculating Change Order costs. The Owner also agrees to the following method of calculating the cost of any changes to the Contract. With each proposal for a change in the amount of the Contract, Contractor shall submit an itemized breakdown of all increases or decreases in the cost of Contractor's and all Subcontractor's and Sub-subcontractor's work to include at least the following detail in the general order listed:

- A. Material quantities and unit costs;
- B. Labor amounts and hourly rates (identified with specific items of material to be placed or operation to be performed);
- C. Costs inherent in use of Contractor/Sub-subcontractor owned equipment;
- D. Equipment rental, if any;
- E. Workmen's compensation and public liability insurance;
- F. General administration, overhead, supervision, project insurance and profit, based on the following schedule:

<b>Subtotal before Applying the Percentage Shown</b>	<b><u>\$500 &amp; Less</u></b>	<b><u>Over \$500</u></b>
Contractor for work performed by its own forces	22%	19%
Contractor for work performed by Subcontractor	10%	8%
Subcontractor for work performed by its own forces	18%	15%



Subcontractor for work performed by Sub-subcontractor	10%	8%
Sub-subcontractor for work performed by its own forces	18%	15%

G. Employment taxes under FICA and FUTA; and

H. State gross receipts tax (Contractor only).

12.1.7 The quotation for work under a Change Order shall be binding for sixty (60) days from the date submitted by Contractor.

## **12.2 CONCEALED CONDITIONS**

12.2.1 Should concealed conditions encountered in the performance of the work below the surface of the ground or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or should concealed or unknown conditions in an existing structure of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the Character provided for in this Contract, be encountered, the Contract Sum shall be equitably adjusted by change Order upon verified claim by either party made within twenty (20) days after the first observance of the conditions.

12.2.2 If Contractor wishes to make a claim for an increase in the Contract Sum, Contractor shall give the Engineer written notice thereof within twenty (20) days after the occurrence of the event giving rise to such claim. This notice shall be given by Contractor before proceeding to execute the work, except in an emergency endangering life or property, in which case Contractor shall proceed in accordance with Paragraph 10.3. No such claim shall be valid unless so made. If such claims are justified and the Owner authorizes an increase in the Contract Sum, the Owner and Contractor shall proceed to negotiate the amount of the adjustment in the Contract Sum. If the Owner and Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Engineer. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.2.3 If Contractor claims that additional cost is involved because of, but not limited to, (1) any written interpretation pursuant to Subparagraph 2.2.8, (2) any order by the Owner to stop the work pursuant to Paragraph 3.3 where Contractor was not at fault, (3) any written order for a minor change in the work issued pursuant to Paragraph 12.4, or (4) failure of payment by the Owner pursuant to Paragraph 9.7, Contractor shall make such claims provided in Subparagraph 12.3.1.

## **12.3 MINOR CHANGES IN THE WORK**

12.3.1 The Engineer will have authority to order minor changes in the work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. Contractor shall carry out such written orders promptly.

## **ARTICLE 13**

### **UNCOVERING AND CORRECTION OF WORK**

#### **13.1 UNCOVERING OF WORK**

13.1.1 If any portion of the work should be covered contrary to the request of the Engineer or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Engineer, be uncovered for its observation and shall be replaced at Contractor's expense.

- 13.1.2 If any portion of the work has been covered which the Engineer has not specifically requested to observe prior to begin covered, the Engineer may request to see such work and it shall be uncovered by Contractor. If such work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such work be found not in accordance with the Contract Documents, Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate Contractor as provided in Article 6, in which even the Owner shall be responsible for the payment of such costs.

## **13.2 CORRECTION OF WORK**

- 13.2.1 Contractor shall promptly correct all work rejected by the Engineer as defective or as failing to conform to the Contract Documents whether observed before or after Substantial completion and whether or not fabricated, installed or completed. Contractor shall bear all costs of correcting such rejected work, including compensation for the Engineer's additional services made necessary thereby.
- 13.2.2 If, within one year after the Date of Substantial Completion of the work or designated portion thereof or within one year after acceptance by the Owner of designated equipment or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the work is found to be defective or not in accordance with the Contract Documents, Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given Contractor a specific written acceptance of such condition. This obligation shall survive termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.
- 13.2.3 Contractor shall remove from the site all portions of the work which are defective or non-conforming and which have not been corrected under Subparagraphs 4.5, 13.2.1 and 13.2.2, unless removal is specifically waived in writing by the Owner.
- 13.2.4 If Contractor fails to correct defective or non-conforming work as provided in Subparagraph 4.5.1, 13.2.1 and 13.2.2, the Owner may correct it in accordance with Paragraph 3.4.
- 13.2.5 If Contractor does not proceed with the correction of such defective or non-conforming work within a reasonable time fixed by written notice from the Engineer, the Owner may remove it and may store the materials or equipment at the expense of Contractor. If Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, the Owner may upon ten (10) additional days' written notice sell such work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by Contractor including compensation for the Engineer's additional services made necessary thereby. If such proceeds of sale do not cover all costs which Contractor should have borne, the difference shall be charged to Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor shall pay the difference to the Owner.
- 13.2.6 Contractor shall bear the cost of making good all work of the Owner or separate Contractors destroyed or damaged by such correction or removal.
- 13.2.7 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which Contractor might have under the Contract Documents, including Paragraph 4.5 hereof. The establishment of the time period of one year after the Date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to Contractor to correct the work and has no relationship to the time within which its obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish Contractor's liability with respect to its obligations other than specifically to correct the work.

### **13.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK**

- 13.3.1 If the Owner prefers to accept defective or non-conforming work, it may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effective whether or not final payment has been made.

## **ARTICLE 14**

### **TERMINATION OF THE CONTRACT**

#### **14.1 TERMINATION BY CONTRACTOR**

- 14.1.1 If the work is stopped for a period of thirty (30) days under an order of court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of Contractor or a Sub-contractor or their agents or employees or any other persons performing any of the work under a contract with Contractor because the Engineer has not issued a Certificate for payment as provided in Paragraph 9.7 or because the Owner has not made payment thereon as provided in paragraph 9.7, then Contractor may, upon seven (7) additional days' written notice to the Owner and the Engineer, terminate the Contract and recover from the Owner payment for all work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.

#### **14.2 TERMINATION BY THE OWNER**

- 14.2.1 If Contractor is adjudged bankrupt, or if Contractor makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its insolvency, or if Contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if Contractor fails to make prompt payment to Subcontractors for material of labor, or persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a provision of the Contract Documents, then the Owner, upon certification by the Engineer that sufficient cause exists to justify such action, may without prejudice to any right or remedy and after giving Contractor and its surety, if any, seven (7) days written notice, terminate the employment of Contractor and take possession of the site and of all material, tools, construction equipment and machinery thereon owned by Contractor and may finish the work by whatever method Contractor may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until the work is finished.
- 14.2.2 If the unpaid balance of the Contract Sum exceeds the costs of finishing the work, including compensation for the Engineer's additional services made necessary thereby, and any damages sustained by the Owner as a result of Contractor's breach, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to the Owner. The amount to be paid to Contractor or to the Owner, as the case may be, shall be certified by the Engineer upon application, in the manner provided in paragraph 9.4 and this obligation or to the Owner, as the case may be, shall be certified by the Engineer upon application, in the manner provided in Paragraph 9.4 and this obligation for payment shall survive the termination of the Contract.
- 14.2.3 In the event that the Project is abandoned by the Owner, the Owner may terminate this contract at any time by giving at least five (5) working days' notice to Contractor. In the event of termination, all work completed shall become the property of the Owner. Contractor shall be entitled to receive compensation for actual work satisfactorily completed hereunder, including reimbursable expense authorized by the Owner, which is then due.

- 14.2.4 In the event Contractor fails to perform the work in accordance with the Contract Documents, the Owner may terminate the Contract after giving Contractor five (5) working days notice.

**ARTICLE 15**

**EQUAL OPPORTUNITY**

**15.1 Contractor shall maintain policies of employment as follows:**

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

**ARTICLE 16**

**MINIMUM WAGE RATES / REGISTRATION**

- 16.1 Contractor warrants and agrees that Contractor and all Subcontractors and Sub-subcontractors shall comply with all applicable provisions of the New Mexico Public Works Minimum Wage Act as outlined in the Contract Documents. Wage rates are not applicable to projects costing less than \$60,000.00.
- 16.2 A General Contractor or subcontractor that submits a bid valued at more than fifty thousand dollars (\$50,000) is subject to the Public Works Minimum Wage Act (13-4-10 NMSA 1978) and shall be required to be registered with the Labor and Industrial Division of the NM Labor Department. The Registration Number shall be provided in the spaces provided in the Bid Form and on the Subcontractor's Listing for subcontracts valued at \$50,000 or more. After the Bid Opening, the registration numbers will be verified and the bid will be considered unresponsive and disqualified if the registration numbers are not valid and if Contractor or subcontractor cannot provide proof of the required registration. It is the responsibility of Contractor and subcontractors to ensure that the registration is completed prior to the Bid Opening.

# **Section 11**

## **Supplementary Conditions**

**SUPPLEMENTARY CONDITIONS  
(Section 00800)**

Document is intended to be used in conjunction with the General Conditions of the Contract.

**ADDITIONAL CONDITIONS**

**1.0 DEFINITIONS** - The following definitions shall apply through the Bidding Documents or Contract Documents unless otherwise specified.

- 1.1 **ADDENDUM:** Written or graphic instrument issued prior to the execution of the Contract which modifies or interpret the Bidding Documents, including Construction Plans and Specifications, by additions, deletions, clarifications, or corrections. Addenda will become part of the Contract Documents when the Construction Contract is executed. Plural: ADDENDA
- 1.2 **ADDITIVE OR DEDUCTIVE ALTERNATE BID:** Amount stated in the Bid to be added or deducted from the amount of the Base Bid if the corresponding change in project scope or alternate materials and/or methods of construction is accepted.
- 1.3 **BASE BID:** Amount of money stated in the Bid as the sum for which the Bidder offers to perform the work, not including that work for which Alternate Bids are also submitted.
- 1.4 **BID:** A complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein, supported by data called for by the Bidding Documents.
- 1.5 **BID LOT:** A major item of work for which a separate quotation or proposal is requested.
- 1.6 **BIDDER:** One who submits a bid for a Prime contract with the Owner, as distinct from a Subcontractor, who submits a bid to a Bidder. Technically, a Bidder is not a Contractor on a specific project until a contract exists between Contractor and the Owner.
- 1.7 **BIDDING DOCUMENT:** Documents that include the Invitation for Bid, Instructions to Bidders, the Bid Form, other sample bidding and contract forms, and the proposed Contract Documents, including any Addenda issued prior to receipt of bids. The Contract Documents proposed for the work consist of the Owner-Contractor Agreement, the Conditions of the Construction Contract (General, Supplementary, and Other Conditions), the Construction Plans, the Specifications, and all Addenda issued prior to and all Modifications issued after execution of the Contract.

- 1.8 BuRRT: Buckman Road Recycling and Transfer Station.
- 1.9 DAY: Calendar day, which is every day shown on the calendar, beginning and ending at midnight. However, due to the Work being performed at an active transfer station, Contractor will not be limited to performing work during facility hours of operation. Contractor shall submit a request for approval of workday hours to Owner.
- 1.10 CENTRAL PURCHASING OFFICE: The Central Purchasing Office is the City of Santa Fe Purchasing Department.
- 1.11 GOVERNING AUTHORITY: The Joint Powers Board of the execution of construction contracts is the Chairperson or Executive Director.
- 1.12 INVITATION FOR BID: The Bidding Documents utilized for soliciting sealed bids. "Invitation to Bid" shall have the same meaning as "Advertisement for Bid".
- 1.13 OWNER: Santa Fe Solid Waste Management Authority, Santa Fe, New Mexico.
- 1.14 PROCUREMENT OFFICER: The Director of the Purchasing Division, or a designee authorized to enter into or administer contracts and make written determination with respect thereto.
- 1.15 RESPONSIBLE BIDDER: A Bidder who submits a responsive bid and who has furnished, when required, information and data to prove that its financial resources, production or service facilities, personnel, service reputation, and experience are adequate to make satisfactory delivery of the services, construction, or items of tangible personal property described in the Bidding Documents (13-1-82, NMSA 1978).
- 1.16 SFSWMA: Santa Fe Solid Waste Management Agency.
- 1.17 SUCCESSFUL BIDDER: The lowest qualified and responsible Bidder to whom the Owner, on the basis of the Owner's evaluation, makes an award.
- 1.18 UNIT PRICES: Amounts stated in the Contract as prices per unit of measurement for materials or services as described in the Contract Documents.
- 1.19 USER: The Santa Fe Solid Waste Management Authority, agencies, or designated entity for whose use the Project is being constructed.

## **2.0 CONTRACT AUDIT**

The Owner shall be entitled to audit the books and records of a Contractor or any Subcontractor under any negotiated contract or subcontract other than a firm fixed-price contract to the extent that such books and records relate to the performance of such contract or subcontract. Such



books and records shall be maintained by Contractor for a period of three (3) years from the date of final payment under the prime contract and by the Subcontractor for a period of three (3) years from the date of final payment under the subcontract unless a shorter period is otherwise authorized in writing.

### **3.0 DEBARRED OR SUSPENDED CONTRACTORS**

A business (Contractor, Subcontractor, or Supplier) that has either been debarred or suspended pursuant to the requirements of the City of Santa Fe Purchasing Manual shall not be permitted to do business with the Owner and shall not be considered for award of contract during the period for which it is debarred or suspended.

### **4.0 BRIBES, GRATUITIES, AND KICK-BACKS**

- 4.1 It is illegal in the State of New Mexico for any public employee to solicit or accept anything of value in connection with award of this bid and for any person to offer or pay anything of value to any such public employee (30-24-1 through 30-24-2, NMSA 1978).
- 4.2 Pursuant to Section 13-1-191, NMSA 1978, reference is hereby made to the Criminal Laws of New Mexico (including 30-24-1, 30-23-2, and 30-41-1 through 3-41-3, NMSA 1978), which prohibit bribes, kick-backs, and gratuities and violation of which constitutes a felon. Further, the Procurement Code (13-1-28 through 13-1-199, NMSA 1978), imposes civil and criminal penalties for its violation

### **5.0 PROTESTS (CITY OF SANTA FE PURCHASING MANUAL)**

- 5.1 Any Contractor who is aggrieved in connection with a procurement may protest to the City of Santa Fe Purchasing Agent and the Owner. The protest should be made in writing within twenty-four (24) hours after the facts or occurrences; giving rise thereto, but in no case, less than fifteen (15) calendar days after the facts or occurrences giving rise thereto.
- 5.2 In the event of a timely protest under Section 5.1 the City of Santa Fe Purchasing Agent and the Owner shall not proceed further with the procurement unless the Owner makes a determination that the award of contract is necessary to protect substantial interests of the Owner.
- 5.3 The City of Santa Fe Purchasing Agent or its designee shall have the authority to take any action reasonably necessary to resolve a protest of an aggrieved Contractor concerning a procurement.
- 5.4 This authority shall be exercised in accordance with adopted regulations, but shall not include the authority to award money damages or attorneys' fees.



- 5.4 The City of Santa Fe Purchasing Agent or its designee shall promptly issue a determination relating to the protest. The determination shall:
- A. State the reasons for the action taken; and,
  - B. Inform the protestant of the right to judicial review of the determination.
- 5.6 A copy of the determination issued shall be mailed immediately to the protestant.

## **6.0 CONTRACT BOND REQUIREMENTS**

- 6.1 The Successful Bidder, where the Contract Price exceeds five hundred dollars (\$500), shall post a one hundred percent (100%) Performance Bond and a one hundred percent (100%) Labor and Material Payment Bond. Bonds shall be executed on Performance Bond and Labor and Material Payment Bond forms attached hereto, with amount payable conforming to the terms of the contract. Surety shall be a company licensed to do business in the State of New Mexico and acceptable to the Owner.
- 6.2 Personal sureties may be accepted if the Owner so determines in advance, but in such case the amount of the Bond shall be the full Contract Price, and the sureties shall justify under oath in amounts above liabilities and exemptions aggregating double the amount of the Bond.
- 6.3 Special attention of Bidders is called to the requirements of Section 13-4-18 through 13-4-20, NMSA 1978 regarding a Contractor who does not have its principal place of business in the State of New Mexico for all taxes due arising out of construction services rendered under the Contract.
- 6.3.1 The right to sue on this Bond accrues only to the Owner and the parties to whom Sections 13-4-18 through 13-4-20, NMSA 1978 grant such right; and any such right shall be exercised only in accordance with the provisions and limitations of said statutes.

## **7.0 NON-RESIDENT CONTRACTOR'S REQUIREMENTS REGARDING GROSS RECEIPTS TAX SURETY BOND**

- 7.1 Section 7-1-55A, NMSA 1978 provides that any person (as defined in Section 7-1-3, NMSA 1978) engaged in the construction business who does not have its principal place of business in New Mexico and enters into a prime construction contract to be performed in this State shall, at the time such contract is entered into, furnish the Director of the Revenue Division, Taxation and Revenue Department, or its delegate with a surety bond or other acceptable security in a sum equivalent to the gross receipts to be paid under the contract multiplied by the applicable rate of the gross receipts tax imposed by Section 7-9-4, NMSA 1978 to secure payment of the tax imposed on the gross receipts from the

contract, and shall obtain a certificate from the Director of the Revenue Division, Taxation and Revenue Department, or its delegate that the requirements of this paragraph have been met.

- 7.2 If the total sum to be paid under the contract is changed by ten percent or more after the date the surety bond or other acceptable security is furnished, to the Director or its delegate, such person shall increase or decrease, as the case may be, the amount of the bond or security within fourteen (14) days after the change (7-1-55B, NMSA 1978).
- 7.3 In addition to the above requirements, Contractor will be subject to all the requirements of the City Procurement Code.

## **8.0 CONTRACTOR'S GROSS RECEIPTS TAX REGISTRATION**

8.1 Section 7-10-4, NMSA 1978 provides that any person (as defined in Section 7-10-3, NMSA 1978) performing services for the Owner, as those terms are used in the Gross Receipts and Compensating Tax Act (Section 7-10-1 to 7-10-5, NMSA 1978), must be registered and be issued a CRS identification number with the Revenue Division of the Taxation and Revenue Department to pay the gross receipts tax.

8.2 The CRS identification number is needed to properly complete the approval process of the contract; therefore, so as to cause no delay in the processing, Contractor must register with the State of New Mexico, Taxation and Revenue Department. For information contact:

Revenue Division  
Taxation and Revenue Department  
Manual Lujan Building  
1200 St. Francis Drive  
Santa Fe, New Mexico 87503  
(505) 988-2290

8.3 If any person who performs services for the Owner is not registered to pay the gross receipts tax, the Owner shall withhold payment of the amount due until the person has presented evidence of registration with the Revenue Department to pay the gross receipts tax.

## **9.0 CONTRACT WITH NONRESIDENT PERSON OR PARTNERSHIPS OR UNADMITTED FOREIGN CORPORATIONS; AGENT FOR SERVICE OF PROCESS**

9.1 Special attention of Bidders is called to requirements of Sections 13-4-21 through 13-4-24, NMSA 1978, whereby a public works contract with a nonresident person or partnership or foreign corporation not authorized to do business in the State

shall contain a specific provision designating an agent resident within the State, and its address, upon whom process and writs in any action or proceeding against such business may be served in any action arising out of such contract.

## **10.0 STATE ALLOWANCES**

10.1 Contractor shall purchase the “Allowed Materials” as directed by the Owner through the Engineer on the basis of the lowest and the best bid of at least three competitive bids. If the actual price for purchasing the “Allowed materials” is more or less than the “Cash Allowance,” the Contract Price shall be adjusted accordingly. The adjustment in Contract Price made on the basis of the purchase price without additional charges for overhead, profit, insurance, or any other incidental expenses. The cost of installation of the “Allowed Materials” shall be included in the applicable section of the Specifications covering the work.

## **11.0 MINIMUM WAGE RATES**

11.1 This project is subject to the Minimum Wage Rates as determined by the New Mexico State Labor & Industrial Commission pursuant to Chapter 13, Section 13-14-11, NMSA 1978. The Minimum Wage Rates to be paid by Contractor and any Subcontractors to their employees on this project are as listed in the New Mexico State Labor and Industrial Commission Minimum Wage Rate Decision. A copy of this decision is bound in these documents immediately following this page.

11.2 All Contractors and Subcontractors shall submit one (1) certified copy of the project weekly payroll to the Santa Fe Solid Waste Management Agency, 149 Wildlife Way, Santa Fe, NM 87506, c/o Mr. Randall Kippenbrock, Executive Director and one (1) copy also certified directly to the New Mexico State Labor Commission – Public Works Division, Aspen Building, 1596 Pacheco Street, Santa Fe, New Mexico 87501, not later than five (5) working days after the close of each payroll period. The prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

11.3 Before using apprentices on this project, Contractor shall present to the Contracting Officer written evidence of registration of such employees with the U.S. Department of Labor, Bureau of Apprenticeship and Training, Western Bank Building (Room 1414), 505 Marquette Avenue, N.W., Albuquerque, New Mexico 87102, Telephone 766-2398. If the apprenticeship is not registered in a bona fide apprenticeship program as mentioned above, the journeyman’s wage rate for that particular classification in which Contractor is working is applicable.

## **12.0 FORM OF CHANGE ORDER AND CHANGE ORDER NOTICE TO PROCEED**

12.1 The following forms issued by the Owner are to be utilized by Contractor, Engineer, and the Owner pursuant to the requirements of the General Conditions.

**13.0 STATE OF NEW MEXICO STATE CONSTRUCTION INDUSTRIES DIVISION**

13.1 Contractor, at its own expense, shall secure any required construction permits from the State CID for this Project. Contractor shall adhere to the requirements established for inspections.

**14.0 DISPOSAL REQUIREMENTS**

14.1 Contractor shall be responsible for the disposal of all rubble, excess materials, etc. at an approved disposal facility. SFSWMA shall maintain ownership of all scrap metals removed from the demolition of existing hoppers.

## **Section 12**

# **State of New Mexico Wage Rates Determination**

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## Wage Decision Approval Summary

1) Project Title: BuRRT Tipping Floor Rehabilitation and General Structural Repairs  
 Requested Date: 04/06/2018  
 Approved Date: 04/06/2018  
 Approved Wage Decision Number: SF-18-0586-B

### Wage Decision Expiration Date for Bids: 08/04/2018

2) Physical Location of Jobsite for Project:  
 Job Site Address: 2600 Buckman Road  
 Job Site City: Santa Fe  
 Job Site County: Santa Fe

3) Contracting Agency Name (Department or Bureau): Santa Fe Solid Waste Management Agency  
 Contracting Agency Contact's Name: Randall Kippenbrock  
 Contracting Agency Contact's Phone: (505) 424-1850 Ext. 100

4) Estimated Contract Award Date: 06/20/2018

5) Estimated total project cost: \$500,000.00

a. Are any federal funds involved?: No

b. Does this project involve a building?: Yes

- The work to the transfer station at the BuRRT facility includes mobilization and demobilization, concrete curb modification, miscellaneous concrete column repairs, and miscellaneous concrete beam repairs in the trailer tunnel of the transfer station, repairs to existing metal hoppers, repairs to the existing push walls, and rehabilitation to the existing concrete tipping floor (specialized iron topping surface).

c. Is this part of a larger plan for construction on or appurtenant to the property that is subject to this project?: No

d. Are there any other Public Works Wage Decisions related to this project?: No

e. What is the ultimate purpose or functional use of the construction once it is completed?: To extend the life of the transfer station.

6) Classifications of Construction:

Classification Type and Cost Total	Description
<b>General Building (B)</b> <b>Cost: \$500,000.00</b>	The work to the transfer station at the BuRRT facility includes mobilization and demobilization, concrete curb modification, miscellaneous concrete column repairs, and miscellaneous concrete beam repairs in the trailer tunnel of the transfer station, repairs to existing metal hoppers, repairs to the existing push walls, and rehabilitation to the existing concrete tipping floor (specialized iron topping surface).



STATE OF NEW MEXICO  
NEW MEXICO DEPARTMENT OF  
WORKFORCE SOLUTIONS  
Labor Relations Division  
121 Tijeras Ave NE, Suite 3000  
Albuquerque, NM 87102  
[www.dws.state.nm.us](http://www.dws.state.nm.us)

## PUBLIC WORKS PROJECT REQUIREMENTS

As a participant in a Public Works project valued at more than \$60,000 in the State of New Mexico, the following list addresses many of the responsibilities that are defined by statute or regulation to each project stakeholder.

### Contracting Agency

- Ensure that all Contractors wishing to bid on a Public Works project when the project is \$60,000 or more are actively registered with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> (Contractor Registration) prior to bidding.
- Please submit Notice of Award (NOA) and Subcontractor List(s) to the PWAA website promptly after the project is awarded.
- Please update the Subcontractor List(s) on the PWAA website whenever changes occur.
- All Sub-Contractors and tiers (excluding professional services) regardless of contract amount must be listed on the Subcontractor List and must adhere to the Public Works Minimum Wage Act.
- Ninety days after project completion please go into the PWAA system and close the project. Only Contracting Agencies are allowed to close the project. Agents or Contractors are not allowed to close projects.

### General Contractor

- Provide a complete Subcontractor List and Statements of Intent (SOI) to Pay Prevailing Wages for all Contractors, regardless of amount of work, to the Contracting Agency within 3 (three) days of award.
- Ensure that all Subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Submit weekly certified payroll bi-weekly to the Contracting Agency.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- Confirm the Wage Rate poster, provided in PWAA, is displayed at the job site in an easily accessible place.
- Make sure, when a project has been completed, the Affidavits of Wages Paid (AWP) are sent to the Contracting Agency.





STATE OF NEW MEXICO  
NEW MEXICO DEPARTMENT OF  
WORKFORCE SOLUTIONS  
Labor Relations Division  
121 Tijeras Ave NE, Suite 3000  
Albuquerque, NM 87102  
[www.dws.state.nm.us](http://www.dws.state.nm.us)

- All Subcontractors and tiers (excluding professional services) regardless of contract amount must be listed on the Subcontractor List and must adhere to the Public Works Minimum Wage Act.

## **Subcontractor**

- Ensure that all Subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Submit weekly certified payroll bi-weekly to the General Contractor(s).
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- All Subcontractors and tiers (excluding professional services) regardless of contract amount must be listed on the Subcontractor List and must adhere to the Public Works Minimum Wage Act.

## **Additional Information**

Reference material and forms may be found at New Mexico Department of Workforce Solutions Public Works web pages at: <https://www.dws.state.nm.us/Labor-Relations/Labor-Information/Public-Works>.

## **CONTACT INFORMATION**

Contact the Labor Relations Division for any questions relating to Public Works projects by email at [public.works@state.nm.us](mailto:public.works@state.nm.us) or call (505) 841-4400.

**Type "B" - GENERAL BUILDING**  
**Effective January 1, 2018**

	<b>Base Rate</b>	<b>Fringe Rate</b>	<b>Apprenticeship</b>
Asbestos Worker - Heat & Frost Insulator	31.76	11.11	0.67
Boilermaker	32.06	27.35	0.67
Bricklayer/Blocklayer/ Stonemason	23.52	8.10	0.67
Carpenter/Lather	24.00	9.47	0.67
Cement Mason	20.37	9.78	0.67
<b>Electricians-Outside Classifications</b>			
Groundman	22.36	11.34	0.67
Equipment Operator	32.08	13.77	0.67
Lineman/Tech	37.75	15.19	0.67
Cable Splicer	41.53	16.14	0.67
<b>Inside Classifications</b>			
Wireman/Technician	30.40	10.36	0.67
Cable Splicer	33.44	10.45	0.67
<b>Sound Classifications</b>			
Installer	23.39	8.31	0.67
Technician	28.95	7.52	0.67
Soundman	27.01	8.31	0.67
Elevator Constructor	41.10	32.40	0.67
Elevator Constructor Helper	28.77	32.40	0.67
Glazier	20.25	4.55	0.67
Ironworker	26.50	14.66	0.67
Painter (Brush/Roller/Spray)	16.75	5.88	0.67
Paper Hanger	16.75	5.88	0.67
Drywall Finisher/Taper	24.00	9.47	0.67
Plasterer	22.07	8.16	0.67
Plumber/Pipefitter	28.95	11.38	0.67
Roofer	23.78	7.60	0.67
Sheetmetal Worker	29.28	17.16	0.67
Soft Floor Layer	24.00	9.47	0.67
Sprinkler Fitter	29.90	19.67	0.67
Tile Setter	23.52	8.10	0.67
Tile Setter Helper/Finisher	15.59	8.10	0.67
<b>Laborers</b>			
Group I	16.09	5.68	0.67
Group II	17.00	5.68	0.67
Group III	18.00	5.68	0.67
Group IV	20.25	5.68	0.67
<b>Operators</b>			
Group I	20.32	6.47	0.67
Group II	22.38	6.47	0.67
Group III	22.82	6.47	0.67
Group IV	23.24	6.47	0.67
Group V	23.41	6.47	0.67
Group VI	23.62	6.47	0.67
Group VII	23.73	6.47	0.67
Group VIII	26.61	6.47	0.67
Group IX	28.89	6.47	0.67
Group X	32.13	6.47	0.67
<b>Truck Drivers</b>			
Group I	14.76	6.25	0.67
Group II	15.00	6.25	0.67
Group III	15.50	6.25	0.67
Group IV	15.51	6.25	0.67
Group V	15.60	6.25	0.67
Group VI	15.75	6.25	0.67
Group VII	15.90	6.25	0.67
Group VIII	16.11	6.25	0.67
Group IX	16.32	6.25	0.67

**NOTE: All Contractors are required to pay SUBSISTENCE, ZONE AND INCENTIVE PAY according to the particular trade. Details are located in a PDF attachment at [WWW.DWS.STATE.NM.US](http://WWW.DWS.STATE.NM.US). Search Labor Relations/Labor Information/Public Works/Prevailing Wage Rates.**

## **Section 13 Technical Specifications**



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SECTION 01010  
SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK

- A. The work of this Contract is located at the Buckman Road Recycling and Transfer Station (BuRRT) in Santa Fe, New Mexico.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and construct the Structural Repairs in their entirety as shown on the Drawings and as specified herein.
- B. The Work includes, but is not necessarily limited to, the following:
  - 1. Mobilization and demobilization
  - 2. Curb Modification in Transfer Trailer Tunnel
  - 3. Miscellaneous Concrete Column Repairs in Transfer Trailer Tunnel
  - 4. Miscellaneous Concrete Beam Repairs in Transfer Trailer Tunnel
  - 5. Repairs to Existing Hoppers
  - 6. Repairs to Existing Push Walls
  - 7. Repairs to Existing Concrete Tipping Floor

1.03 CONTRACT TIME

- A. Perform work to accommodate applicable permitting review and building permits. The Contractor shall include time for these requirements, as well as inspection. All the work shall be completed within 60 calendar days.

1.04 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall have complete and exclusive use of the premises for the performance of the Work.
- B. Contractor shall limit the use of the premises for his/her Work and for storage to allow for:
  - 1. Work by other contractors.
  - 2. Owner occupancy
  - 3. Public use.
- C. Coordinate use of premises with other contractors, Owner, Public users of facility, and Engineer.

- D. Contractor shall assume full responsibility for security of all his/her and his/her subcontractors materials and equipment stored on the site.
- E. If directed by the Owner, move any stored items which interfere with operations of Owner or other contractors.
- F. Obtain and pay for use of additional storage or work areas if needed to perform the Work.
- G. The Contractor shall provide spill containment for all regulated materials and NFPA rated containment for all flammable materials.

#### 1.05 OWNER OCCUPANCY

- A. Owner will occupy premises during performance of the work for the conduct of his/her normal operations. Coordinate all construction operations with Owner to minimize conflict and to facilitate Owner usage.

#### 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Altitude: Provide materials and equipment suitable for installation and operation under rated conditions at 7,000 feet above sea level.
- B. Provide equipment and devices installed outdoors or in unheated enclosures capable of continuous operation within an ambient temperature range of -20 degrees F to 120 degrees F.

#### 1.07 DISPOSAL OF MATERIAL

- A. Salvageable material and equipment listed hereinafter shall become the property of the Owner. Dismantle all such items to a size that can be readily handled and deliver them to an on-site designated storage area as directed by the Owner.
- B. The following materials and items associated with the removal of existing steel plating and appurtenances as shown on the Drawings shall remain the property of the Owner and stored where directed on the site.
  - 1. All scrap metal.
- C. All other material and items of equipment shall become the Contractor's property and must be removed from the site.
- D. The storage or sale of removed items on the site will not be allowed.

#### PART 2 PRODUCTS (NOT USED)

#### PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01025  
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Measurement and payment shall be as specified in this Section.
- B. Work to be performed under this contract will be paid for on a Unit Price or Lump Sum basis under the appropriate Bid Items in the Bid Schedule. All costs for Work shown on Drawings or described in Specifications shall be incidental to the Contract and shall be included in the Contract Price. A claim by the Contractor for extra compensation for an item shown on the Drawings or described in the Specifications will not be considered for any reason including but not limited to the claim that it does not fall within the scope of one of the Bid Items. All work covered under the Standard Specifications shall be paid as outlined in this Section, NOT as indicated in the Standard Specifications.
- C. Contractor shall, within 10 days of receipt of Notice to Proceed, submit a schedule of values in accordance with Section 01370 for all lump sum bid items.
- D. General scope of work under each bid item includes all labor and materials required for construction of completely functional and operational facilities as shown on the Drawings and in these Specifications.
- E. GENERAL. The total base bid price shall cover all work required by the contract documents for construction of a completely functional and operational facility. All costs in connection with the proper and successful completion of the work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plans, equipment, and tools; and performing all necessary labor and supervision to fully complete the work in accordance with these contract documents, shall be included in the unit and lump sum prices bid. All work not specifically set forth as a pay item in the bid proposal shall be considered a subsidiary obligation of Contractor and as such, all costs in connection therewith shall be included in the bid prices.
- F. ESTIMATED QUANTITIES. All estimated quantities for unit price bid items stipulated in the bid proposal are approximate and are to be used only (a) as a basis for estimating the probable cost of the work and (b) for the purpose of comparing the bids submitted for the work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished.
- G. MEASUREMENT AND PAYMENT. All measurements and payments will be based on completed work performed in strict accordance with the Drawings and Specifications and in accordance with contract-unit prices and schedule of values. Incidental work and items not listed in the contract-unit price schedule will not be paid for separately, but will be included in the payment for the listed item or items to which such incidental work applies. Measurement and payment for lump sum items shall be full compensation for all labor, equipment, materials, testing and incidentals necessary to perform the work in accordance with these contract

documents, and shall include all else incidental thereto for which separate payment is not provided under other items.

ITEM NO. 1 – MOBILIZATION AND DEMOBILIZATION

Shall include all costs for Contractor's mobilization, insurance and bond, construction permits and fees, job trailers, site administration expenses, and utilities for the entire project, costs for as-built survey, contract closeout, site cleanup, and all costs associated with Contractor's demobilization from the site.

Payment for mobilization and demobilization shall be on a Lump Sum basis as noted in the Bid Schedule.

ITEM NO. 2 – TUNNEL CURB MODIFICATION

Shall include all labor, materials, equipment, testing, and incidentals required for Tunnel Curb Modification complete-in-place as shown on the Drawings and as specified herein. Prices and payment shall include demolition of existing curb and curb guard, grout fill, and new curb guard installation as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items.

Payment for Tunnel Curb Modification shall be on a Unit Price per Linear Foot basis as noted in the Bid Schedule, measured in place based on the as-built survey quantity constructed.

ITEM NO. 3 – MISCELLANEOUS TUNNEL COLUMN REPAIRS

Shall include all labor, materials, equipment, testing, and incidentals required for Miscellaneous Tunnel Column Repairs as shown on the Drawings and as specified herein. Prices and payment shall include demolition of existing damaged concrete and fill with repair mortar to match original dimensions as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items are to be included under this Bid Item.

Payment for Miscellaneous Tunnel Column Repairs shall be on a Unit Price per Linear Foot basis as noted in the Bid Schedule, measured in place based on the as-built survey quantity constructed.

ITEM NO. 4 – MISCELLANEOUS TUNNEL BEAM REPAIRS

Shall include all labor, materials, equipment, testing, and incidentals required for Miscellaneous Tunnel Beam Repairs as shown on the Drawings and as specified herein. Prices and payment shall include demolition of existing damaged concrete and fill with repair mortar to match original dimensions as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items are to be included under this Bid Item.

Payment for Miscellaneous Tunnel Beam Repairs shall be on a Unit Price per Linear Foot basis as noted in the Bid Schedule, measured in place based on the as-built survey quantity constructed.



ITEM NO. 5 – HOPPER REPAIRS

Shall include all labor, materials, equipment, testing, and incidentals required for Hopper Repairs as shown on the Drawings and as specified herein. Prices and payment shall include existing steel plate demolition, installation of new steel plate, and installation of fabric-reinforced rubber as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items are to be included under this Bid Item.

Payment for Hopper Repairs shall be on a Lump Sum basis as noted in the Bid Schedule.

ITEM NO. 6 – WALL STEEL PLATE REPAIRS

Shall include all labor, materials, equipment, testing, and incidentals required for Push Wall Repairs as shown on the Drawings and as specified herein. Prices and payment shall include demolition of existing damaged steel plate, new steel plate installation, and concrete repairs as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items are to be included under this Bid Item.

Payment for Push Wall Repairs shall be on a Unit Price per Linear Foot basis as noted in the Bid Schedule, measured in place based on the as-built survey quantity constructed.

ITEM NO. 7 – CONCRETE FLOOR REPAIRS

Shall include all labor, materials, equipment, testing, and incidentals required for Concrete Tipping Floor Repairs complete-in-place as shown on the Drawings and as specified herein. Prices and payment shall include demolition of existing floor topping and construction of extra heavy duty concrete topping as specified, shown, or required for the completion of work; and all else incidental thereto for which separate payment is not provided under other Bid Items.

Payment for Tipping Floor Resurfacing shall be on a Unit Price per Square Foot basis as noted in the Bid Schedule, measured in place based on the as-built survey plan view quantity constructed, with no allowance for slope correction.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 01026  
APPLICATION FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the Engineer in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- B. The accepted Schedule of Values, Section 01370, shall be used as the basis for the Contractor's Application for Payment.

1.02 RELATED WORK

- A. Agreement between Owner and Contractor is included in Division 0.
- B. Standard General Conditions of the Construction Contract are included in Division 0.
- C. Schedule of Values are included in Section 01370.
- D. Contract Closeout is included in Section 01700.

1.03 SUBMITTALS

- A. Submit, in accordance with Section 01300, applications typed on forms provided by the Owner, Application for Payment, with itemized data typed on 8-1/2-in by 11-in or 8-1/2-in by 14-in white paper continuation sheets.
- B. Provide itemized data on continuation sheet.
  - 1. Format, schedules, line items and values: Those of the Schedule of Values accepted by the Engineer.
- C. Provide construction photographs.

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form
  - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
  - 2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
  - 3. Execute certification with signature of a responsible officer of Contract firm.
- B. Continuation Sheets
  - 1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.

2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
  - a. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets.
  - a. List by Change Order Number and description, as for an original component item of work.
4. To receive approval for payment on component material stored on site, submit copies of the original paid invoices with the application for payment.

#### 1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer requires substantiating data, submit suitable information, with a cover letter identifying.
  1. Project.
  2. Application number and date.
  3. Detailed list of enclosures.
  4. For stored products:
    - a. Item number and identification as shown on application.
    - b. Description of specific material.
- B. Submit one copy of data and cover letter for each copy of application.
- C. As a prerequisite for payment, submit a "Surety Acknowledgement of Payment Request" letter showing amount of progress payment which the Contractor is requesting.
- D. Maintain an updated set of drawings to be used as record drawings in accordance with Section 01720. As a prerequisite for monthly progress payments, exhibit the updated record drawings for review by the Owner and the Engineer.

#### 1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 - Contract Closeout.
- C. Submit all Project Record Documents in accordance with Section 01720, and as indicated elsewhere in the specifications.

#### 1.07 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to the Engineer at the times stipulated in the Agreement.
- B. Number: Five copies of each Application.

- C. When the Engineer finds Application properly completed and correct, he/she will transmit certificate for payment to Owner, with copy to Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 01040  
PROJECT COORDINATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This section specifies requirements for project coordination including:
  - 1. Coordination.
  - 2. Administrative and supervisory personnel.
  - 3. General installation provisions.
  - 4. Cleaning and protection.

1.02 COORDINATION

- A. Coordinate activities included in various Sections to assure efficient and orderly installation of each component. Coordinate operations included under different Sections that are dependent on each other for proper installation and operation.
  - 1. Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain the best results.
  - 2. Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.
  - 3. Make provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved outlining required coordination procedures. Include required notices, reports and attendance at meeting.
  - 1. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

1.03 ADMINISTRATIVE PROCEDURES

- A. Coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and ensure orderly progress. Such activities include:
  - 1. Preparation of schedules.
  - 2. Installation and removal of temporary facilities.
  - 3. Delivery and processing of submittals.
  - 4. Progress meetings.
  - 5. Project closeout activities.

#### 1.04 STAFF NAMES

- A. Within 5 days of Notice to Proceed, submit a list of Contractor's staff assignments, including Superintendent and personnel at the site; identify individuals, their duties and responsibilities and telephone numbers.

#### 1.05 INSPECTION OF CONDITIONS

- A. The Installer of each component shall inspect the substrate and conditions under which Work is performed. Do not proceed until unsatisfactory conditions have been corrected.

#### 1.06 MANUFACTURER'S INSTRUCTIONS

- A. Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in Contract Documents.
- B. Inspect material immediately upon delivery and again prior to installation. Reject damaged and defective items.

#### 1.07 VISUAL EFFECTS

- A. Provide uniform joint widths in exposed Work. Arrange joints to obtain the best effect. Refer questionable choices to the Engineer for decision.
- B. Recheck measurements and dimensions, before starting installation.
- C. Install each component during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.

#### 1.08 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
  - 1. Clean and maintain completed construction as often as necessary through the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
  - 2. Limiting Exposure: Supervise operations to ensure that no part of construction, completed or in progress, is subject to harmful or deleterious exposure. Such exposures include:
    - a. Excessive static or dynamic loading.
    - b. Excessive internal or external pressures.
    - c. Excessive weathering.
    - d. Excessively high or low temperatures or humidity.
    - e. Air contamination or pollution.
    - f. Water or ice.
    - g. Chemicals or solvents.
    - h. Heavy traffic, soiling, staining and corrosion.
    - i. Bird, rodent and insect infestation.



- j. Unusual wear or other misuse.
- k. Contact between incompatible materials.
- l. Theft or vandalism.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 01046  
CONTROL OF WORK

PART 1 GENERAL

1.01 SITE

- A. Furnish materials and equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will ensure the completion of the work within the Contract Time. If at any time such operations appear to the Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, Engineer may order the Contractor to increase the efficiency, change the character or increase the equipment and/or materials, the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his/her obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

- A. Do not enter or occupy private land outside of easements, except by permission of the land owner.

1.03 MAINTENANCE OF TRAFFIC

- A. Detours around construction will be subject to the approval of the Owner and the Engineer. Where detours are permitted, provide all necessary barricades and signs as required to divert the flow of traffic. Expedite construction operations while traffic is detoured. Periods when traffic is being detoured will be strictly controlled by the Owner.

1.04 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property and use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his/her expense, to a condition similar or equal to that existing before the damage was done, or he/she shall make good the damage in other manner acceptable to the Engineer.

1.05 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains and electric and telephone cables, whether or not they are shown on the Drawings. Carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operations shall be repaired by him/her at his/her expense.
- B. Assistance will be given the Contractor in determining the location of existing services. The Contractor, however, shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines and sewers). Maintain services to buildings and pay costs or charges resulting from damage thereto.

- C. Protection of existing utilities and structures as described in this Section shall be a part of the work under the Contract and all costs in connection therewith shall be included in the Total Price Bid in the Bid Form.

#### 1.06 WATER FOR CONSTRUCTION PURPOSES

- A. Water for construction purposes is available to the Contractor via onsite potable water supply. Contractor shall coordinate access requirements and use of water with the Owner.

#### 1.07 MAINTENANCE OF FLOW

- A. Provide for the flow of sewers, drains and water courses interrupted during the progress of the work, and immediately cart away and remove all offensive matter. Discuss the entire procedure of maintaining existing flow with the Engineer well in advance of the interruption of any flow.

#### 1.08 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the Contractor and his/her Subcontractors or trades and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Engineer.

#### 1.09 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

- A. During the course of the work, keep the site of operations as clean and neat as possible. Contractor may dispose of construction materials at BuRRT at the current disposal rates; metal shall be stockpiled in area/container designated by Owner. Dispose of all residue resulting from the construction work and, at the conclusion of the work, remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and leave the entire site of the work in a neat and orderly condition.
- B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the Contractor and his/her subcontractors shall comply with all applicable Federal, State and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and in other related sections.
- C. Disposal of excess excavated material in wetlands, stream corridors and plains is strictly prohibited even if the permission of the property owner is obtained. Any violation of this restriction by the Contractor or any person employed by him will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action be taken against the offending parties. The Contractor will be required to remove the fill and restore the area impacted at no increase in the Contract Price.

END OF SECTION

SECTION 01200  
PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Engineer shall schedule and administer pre-construction meeting and specially called meetings throughout progress of the work.
  - 1. Prepare agenda for meetings.
  - 2. Make physical arrangements for meetings.
  - 3. Preside at meetings.
  - 4. Record the minutes; include significant proceedings and decisions.
  - 5. Reproduce and distribute copies of minutes within 5 working days after each meeting.
    - a. To participants in the meeting.
    - b. To parties affected by decisions made at the meeting.
- B. Representatives of Contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. Attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders are included in Section 2 of the Contract Documents.
- B. Construction Schedules are included in Section 01310.
- C. Shop Drawings, Working Drawings and Samples are included in Section 01300.
- D. Project Record Documents are included in Section 01720.

1.03 PRE-CONSTRUCTION MEETING

- A. Schedule a preconstruction meeting no later than 10 days after date of Notice to Proceed.
- B. Location: A central site, convenient for all parties, designated by the Owner.
- C. Attendance
  - 1. Owner's Representative.
  - 2. Engineer and his/her professional consultants.
  - 3. Contractor's Superintendent.

4. Major Subcontractors.
5. Others as appropriate.

D. Suggested Agenda

1. Distribution and discussion of:
  - a. List of major subcontractors and suppliers.
  - b. Projected Construction Schedules.
2. Critical work sequencing.
3. Major equipment deliveries and priorities.
4. Project Coordination.
  - a. Designation of responsible personnel.
5. Procedures and processing of:
  - a. Field decisions.
  - b. Proposal requests.
  - c. Submittals.
  - d. Change Orders.
  - e. Applications for Payment.
6. Adequacy of distribution of Contract Documents.
7. Procedures for maintaining Record Documents.
8. Use of premises:
  - a. Office, work and storage areas.
  - b. Owner's requirements.
9. Construction facilities, controls and construction aids.
10. Temporary utilities.
11. Housekeeping procedures.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01300  
SUBMITTALS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section includes the requirements for compiling, processing and transmitting submittals required for execution of the project.
- B. Submittals are categorized into two types: Action Submittals and Informational Submittals, as follows:
  - 1. Action Submittal: Written and graphic information submitted by the Contractor that requires the Engineer's approval. The following are examples of action submittals:
    - a. Shop drawings (including working drawing and product data)
    - b. Samples
    - c. Operation & maintenance manuals
    - d. Site Usage Plan (Contractor's staging - including trailer siting and material laydown area)
    - e. Schedule of values
    - f. Payment application format
  - 2. Informational Submittal: Information submitted by the Contractor that does not require the Engineer's approval. The following are examples of informational submittals:
    - a. Shop Drawing Schedule
    - b. Construction Schedule
    - c. Statements of Qualifications
    - d. Health and Safety Plans
    - e. Construction Photography and Videography
    - f. Work Plans
    - g. Maintenance of Traffic Plans
    - h. Outage Requests
    - i. Proposed Testing Procedures
    - j. Test Records and Reports
    - k. Vendor Training Outlines/Plans
    - l. Test and Start-Up Reports
    - m. Certifications
    - n. Record Drawings
    - o. Record Shop Drawings
    - p. Submittals required by laws, regulations and governing agencies
    - q. Submittals required by funding agencies
    - r. Other requirements found within the technical specifications
    - s. Warranties and Bonds
    - t. As-Built Surveys
    - u. Contract Close-out Documents

1.02 RELATED WORK

- A. Additional requirements may be specified in the General Conditions for the Contract.

- B. Additional submittal requirements may be specified in the respective technical Specification Sections.
- C. Contract closeout submittals are included in Section 01700.
- D. Warranties and Bonds are included in Section 01740.
- E. Applications for Payment are included in Section 01026.
- F. Construction Schedules are included in Section 01310.
- G. Project Record Documents are included in Section 01720.

### 1.03 CONTRACTOR'S RESPONSIBILITIES

- A. All submittals shall be clearly identified as follows:
  - 1. Date of Submission.
  - 2. Project Number.
  - 3. Project Name.
  - 4. Contractor Identification.
    - a. Contractor.
    - b. Supplier.
    - c. Manufacturer.
    - d. Manufacturer or supplier representative.
  - 5. Identification of the Product.
  - 6. Reference to Contract Drawing.
  - 7. Reference to specification section number, page and paragraph(s).
  - 8. Reference to applicable standards, such as ASTM or Federal Standards numbers.
  - 9. Indication of Contractor's approval.
  - 10. Contractor's Certification statement.
  - 11. Identification of deviations from the Contract Documents, if any.
  - 12. Reference to previous submittal (for resubmittals).
  - 13. Made in America (when required by the Contract).
- B. Submittals shall be clear and legible, and of sufficient size for legibility and clarity of the presented data.
- C. Submittal Log. Maintain a log of all submittals. The submittal log shall be kept accurate and up to date. This log should include the following items (as applicable):



1. Description.
2. Submittal Number.
3. Date transmitted to the Engineer.
4. Date returned to Contractor (from Engineer).
5. Status of Submittal (Approved/Not Approved/etc.).
6. Date of Resubmittal to Engineer and Return from Engineer (if applicable and repeat as necessary).
7. Date material released for fabrication.
8. Projected (or actual) delivery date .

D. Numbering System. Utilize the following submittal identification numbering system:

1. The first character shall be a D, S, M or I which represents Shop Drawing (including working drawings and product data), Sample, Manual (Operating & Maintenance) or Informational, respectively.
2. The next five digits shall be the applicable Section Number.
3. The next three digits shall be the sequential number of each separate item or drawing submitted under each Specification Section, in the chronological order submitted, starting at 001.
4. The last character shall be a letter, A to Z, indicating the submission (or resubmission) of the same submittal, i.e., "A" = 1st submission, "B" = 2nd submission, "C" = 3rd submission, etc. A typical submittal number would be as follows:

D-03300-008-B.

D = Shop Drawing

03300 = Section for Concrete.

008 = the eighth different submittal under this Section.

B = the second submission (first resubmission) of that particular shop drawing.

E. Variances

1. Notify the Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
2. Notify the Engineer in writing, at the time of re-submittal (resubmission), of all deviations from previous submissions of that particular shop drawing, except those deviations which are the specific result of prior comments from the Engineer.

F. Action Submittals

1. Shop Drawings, Working Drawings, Product Data and Samples.

- a. Shop Drawings.
  - 1) Shop drawings as defined in the General Conditions, and as specified in individual Sections may include, but are not necessarily limited to, custom prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, valve schedules, wiring diagrams, coordination drawings, equipment inspection and test reports, and performance curves and certifications, as applicable to the work.
  - 2) Contractor shall verify all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and coordinate each item with other related shop drawings and the Contract requirements.
  - 3) All details on shop drawings shall clearly show the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.
  - 4) All shop drawings submitted by subcontractors and vendors shall be reviewed by the Contractor. Contractor shall confirm, materials, dimensions, catalog numbers, technical data and performance criteria; and shall coordinate with other related shop drawings and the Contract requirements. In addition, Contractor shall confirm existing field conditions and dimensions and assure that the submittal is coordinated and compatible with existing conditions. Submittals directly from subcontractors or vendors will not be accepted by the Engineer.
  - 5) The Contractor shall be responsible the accuracy of the subcontractor's or vendor's submittal; and, for their submission in a timely manner to support the requirements of the Contractor's construction schedule. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractor or vendor to correct, before submission to the Engineer. All shop Drawings shall be approved by the Contractor.
  - 6) Delays to construction due to the untimely submission of submittals will constitute inexcusable delays, for which Contractor shall not be eligible for additional cost nor additional contract time. Inexcusable delays consist of any delay within the Contractor's control.
  - 7) Submittals for equipment specified under Divisions 11, 13, 14, 15 and 16 shall include a listing of installations where identical or similar equipment manufactured by that manufacturer has been installed and in operation for a period of at least five years.
- b. Working Drawings
  - 1) Detailed installation drawings (sewers, equipment, piping, electrical conduits and controls, HVAC work, and plumbing, etc.) shall be prepared and submitted for review and approval by the Engineer prior to installing such work. Installation drawings shall be to-scale and shall be fully dimensioned.
  - 2) Piping working drawings shall show the laying dimensions of all pipes, fittings, valves, as well as the equipment to which it is being connected. In addition, all pipe supports shall be shown.
  - 3) Equipment working drawings shall show all equipment dimensions, anchor bolts, support pads, piping connections and electrical connections. In addition, show clearances required around such equipment for maintenance of the equipment.
  - 4) Electrical working drawings shall show conduits, junction boxes, disconnects, control devices, lighting fixtures, support details, control panels, lighting and

- power panels, and Motor Control Centers. Coordinate all locations with the Contract Documents and the Contractor's other working drawings.
- c. Product Data
    - 1) Product data, as specified in individual Specification Sections, include, but are not limited to, the manufacturer's standard prepared data for manufactured products (catalog data), such as the product specifications, installation instructions, availability of colors and patterns, rough-in diagrams and templates, product photographs (or diagrams), wiring diagrams, performance curves, quality control inspection and reports, certifications of compliance (as specified or otherwise required), mill reports, product operating and maintenance instructions, recommended spare parts and product warranties, as applicable.
  - d. Samples
    - 1) Furnish, samples required by the Contract Documents for the Engineer's approval. Samples shall be delivered to the Engineer as specified or directed. Unless specified otherwise, provide at least two samples of each required item. Materials or equipment for which samples are required shall not be used in the work unless and until approved by the Engineer.
    - 2) Samples specified in individual Specification Sections, include, but are not limited to: physical examples of the work (such as sections of manufactured or fabricated work), small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and other specified units of work.
    - 3) Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify and Contract Requirements.
    - 4) Approved samples not destroyed in testing shall be sent to the Engineer or stored at the site of the work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which fail testing or are not approved will be returned to the Contractor at his expense, if so requested at time of submission.
  - e. Professional Engineer (P.E.) Certification Form
    - 1) If specifically required in any of the technical Specification Sections, submit a Professional Engineer (P.E.) Certification for each item required, using the form appended to this Section, signed and sealed by the P.E. licensed or registered in the state wherein the work is located.
2. Contractor's Certification
- a. Each shop drawing, working drawings, product data, and sample shall have affixed to it the following Certification Statement:
    - 1) "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."
  - b. Shop drawings, working drawings, and product data sheets 11-in x 17-in and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The transmittal cover sheet for each identified shop drawing shall fully describe the packaged data and include a listing of all items within the package.

3. The review and approval of shop drawings, working drawings, product data, or samples by the Engineer shall not relieve the Contractor from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Engineer will have no responsibility therefor.
4. Project work, materials, fabrication, and installation shall conform to approved shop drawings (including working drawings and product data) and applicable samples.
5. No portion of the work requiring a shop drawing (including working drawings and product data) or sample shall be started, nor shall any materials be fabricated or installed before approval of such item. Procurement, fabrication, delivery or installation of products or materials that do not conform to approved shop drawings shall be at the Contractor's risk. Furthermore, such products or materials delivered or installed without approved shop drawings, or in non-conformance with the approved shop drawings will not be eligible for progress payment until such time as the product or material is approved or brought into compliance with approved shop drawings. Neither the Owner nor Engineer will be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
6. Operation and Maintenance Data
  - a. Operation and maintenance data shall be submitted in assembled manuals as specified. Such manuals shall include detailed instructions for Owner personnel on safe operation procedures, controls, start-up, shut-down, emergency procedures, storage, protection, lubrication, testing, trouble-shooting, adjustments, repair procedures, and other maintenance requirements.
  - b. Schedule of Values
    - 1) On projects consisting of lump sums (in whole or in part) submit a proposed schedule of values providing a breakdown of lump sum items in to reasonably small components – generally disaggregated by building, area, and/or discipline. The purpose of the schedule of values is for processing partial payment applications. If requested by the Engineer, provide sufficient substantiation for all or some items as necessary to determine the proposed schedule of values is a reasonable representation of the true cost breakdown of the Work. The schedule of values shall not be unbalanced to achieve early payment or over-payment in excess of the value of work or any other mis-distribution of the costs. If, in the opinion of the Engineer, the schedule of values is unbalanced, Contractor shall reallocate components to achieve a balanced schedule acceptable to Engineer.
  - c. Payment Application Format
    - 1) If an application form is included in the Contract Documents, use that form unless otherwise approved by the Engineer and Owner. If an application form is not included in the Contract Documents, Contractor may propose a form for approval.
7. Site Usage
  - a. Submit a proposed site staging plan, including but not limited to the location of office trailers, storage trailers and material laydown. Such plan shall be a graphic presentation (drawing) of the proposed locations; and, shall include on-site traffic modifications, and temporary utilities, as may be applicable.

G. Informational Submittals

1. Shop Drawing Schedule
  - a. Prepare and submit a schedule indicating when shop drawings are required to be submitted to support the as-planned construction schedule. The submittal schedule shall allow sufficient time for preparation and submittal, review and approval, and fabrication and delivery to support the construction schedule.
2. Construction Schedule
  - a. Prepare and submit construction schedules and monthly status reports as specified.
3. Statements of Qualifications
  - a. Provide evidence of qualification, certification, or registration, as required in the Contract Documents, to verify qualifications of licensed land surveyor, professional engineer, materials testing laboratory, specialty subcontractor, technical specialist, consultant, specialty installer, and other professionals.
  - b. Health and Safety Plans
    - 1) When specified, prepare and submit a general company Health and Safety Plan (HSP), modified or supplemented to include job-specific considerations.
4. Construction Photography and Videography
  - a. Provide periodic construction photographs and videography as specified – including but not limited to preconstruction photographs and/or video, monthly progress photos and/or video and post-construction photographs and/or video.
5. Work Plans
  - a. Prepare and submit copies of all work plans needed to demonstrate to the Owner that Contractor has adequately thought-out the means and methods of construction and their interface with existing facilities.
6. Maintenance of Traffic Plans
  - a. Prepare maintenance of traffic plans where and when required by the Contract Documents and by local ordinances or regulations. If Contractor is not already knowledgeable about local ordinances and regulations regarding maintenance of traffic requirements, become familiar with such requirements and include all costs for preparation and submittal of traffic management plans and all associated costs for permits and fees to implement the traffic management plan, in the bid amount. In addition, unless a supplemental payment provision is provided in the bid form, include the cost of police attendance, when required.
7. Outage Requests
  - a. Provide sufficient notification of any outages required (electrical, flow processes, etc.) as may be required to tie-in new work into existing facilities. Unless specified otherwise elsewhere, a minimum of seven calendar days' notice shall be provided.
8. Proposed Testing Procedures
  - a. Prepare and submit testing procedures it proposes to use to perform testing required by the various technical specifications.

9. Test Records and Reports
  - a. Provide copies of all test records and reports as specified in the various technical specifications.
10. Vendor Training Outlines/Plans
  - a. At least two weeks before scheduled training of Owner's personnel, provide lesson plans for vendor training in accordance with the specification for O&M manuals.
11. Test and Start-up Reports
  - a. Manufacture shall perform all pre-start-up installation inspection, calibrations, alignments, and performance testing as specified in the respective Specification Section. Provide copies of all such test and start-up reports.
12. Certifications
  - a. Provide various certifications as required by the technical specifications. Such certifications shall be signed by an officer (of the firm) or other individual authorized to sign documents on behalf of that entity.
  - b. Certifications may include, but are not limited to:
    - 1) Welding certifications and welders qualifications
    - 2) Certifications of Installation, Testing and Training for all equipment
    - 3) Material Testing reports furnished by an independent testing firm
    - 4) Certifications from manufacturer(s) for specified factory testing
    - 5) Certifications required to indicate compliance with any sustainability or LEEDS accreditation requirements indicated in the Contract Documents
13. Record Drawings
  - a. No later than Substantial Completion, submit a record of all changes during construction not already incorporated into drawings – in accordance with specification on Project Record Documents.
14. Record Shop Drawings
  - a. Before final payment is made, furnish one set of record shop drawings to the Engineer. These record shop drawings shall be in conformance with the approved documents and should show any field conditions which may affect their accuracy.
  - b. Submittals required by laws, regulations and governing agencies
    - 1) Prepare and submit all documentation required by state or local law, regulation or government agency directly to the applicable agency. This includes, but is not limited to, notifications, reports, certifications, certified payroll (for projects subject to wage requirements) and other documentation required to satisfy all requirements. Provide to Engineer one copy of each submittal made in accordance with this paragraph.
  - c. Submittals required by funding agencies
    - 1) Prepare and submit all documentation required by funding agencies. This includes, but is not limited to segregated pay applications and change orders when required to properly allocate funds to different funding sources; and certified payrolls for projects subject to wage requirements. Provide one copy of each submittal made in accordance with this paragraph to the Engineer.
15. Other requirements of the technical Specification Sections
  - a. Comply with all other requirements of the technical specifications.

16. Warranties and Bonds
  - a. Assemble a booklet or binder of all warranties and bonds as specified in the various technical specifications and in accordance with the specification on Warranties and Bonds; and provide two originals to the Engineer.
17. As-Built Surveys
  - a. Engage the services of a licensed land surveyor in accordance with the Project Controls (Surveying) specification. Prior to Final Completion, provide an as-built survey of the constructed facility, as specified.
18. Contract Close-Out Documents
  - a. Submit Contract documentation as indicated in the specification for Contract Close-out.

## PART 2 PRODUCTS (NOT USED)

## PART 3 EXECUTION

### 3.01 SUBMITTAL SCHEDULE

- A. Provide an initial submittal schedule at the pre-construction meeting for review by Owner and Engineer. Incorporate comments from Owner or Engineer into a revised submittal schedule.
- B. Maintain the submittal schedule and provide sufficient copies for review by Owner and Engineer. An up-to-date submittal schedule shall be provided at each project progress meeting.

### 3.02 TRANSMITTALS

- A. Prepare separate transmittal sheets for each submittal. Each transmittal sheet shall include at least the following: the Contractor's name and address, Owner's name, project name, project number, submittal number, description of submittal and number of copies submitted.
- B. Submittals shall be transmitted or delivered directly to the office of the Engineer, as indicated in the Contact Documents or as otherwise directed by the Engineer.
- C. Provide copies of transmittals forms or cover letters (without attachments) directly to the Resident Project Representative.

### 3.03 PROCEDURES

- A. Action Submittals
  1. Contractor's Responsibilities
    - a. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required). Coordinate with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. Extensions to the Contract Time will not be approved for the Contractor's failure to transmit submittals sufficiently in advance of the Work.

- b. The submittals of all shop drawings (including working drawings and product data) shall be sufficiently in advance of construction requirements to allow for possible need of re-submittals, including the specified review time for the Engineer.
  - c. No less than 30 calendar days will be required for Engineer's review time for shop drawings and O&M manuals involving only one engineering discipline. No less than 45 calendar days will be required for Engineer's review time for shop drawings and O&M manuals that require review by more than one engineering discipline. Resubmittals will be subject to the same review time.
  - d. Submittals of operation and maintenance data shall be provided within 30 days of approval of the related shop drawing(s).
  - e. Before submission to the Engineer, review shop drawings as follows:
    - 1) Make corrections and add field measurements, as required
    - 2) Use any color for its notations except red (reserved for the Engineer's notations) and black (to be able to distinguish notations on black and white documents)
    - 3) Identify and describe each and every deviation or variation from Contract documents or from previous submissions, except those specifically resulting from a comment from the Engineer on a previous submission
    - 4) Include the required Contractor's Certification statement
    - 5) Provide field measurements (as needed)
    - 6) Coordinate with other submittals
    - 7) Indicate relationships to other features of the Work
    - 8) Highlight information applicable to the Work and/or delete information not applicable to the Work
  - f. Submit the following number of copies:
    - 1) Shop drawings (including working drawings and product data) – Submit no fewer than four, three of which will be retained by the Engineer and/or Owner.
    - 2) Samples – three
    - 3) Site Usage Plan – three copies
    - 4) Schedule of values – three copies
    - 5) Payment application format – three copies
  - g. If Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, provide written notice thereof to the Engineer immediately; and do not release for manufacture before such notice has been received by the Engineer.
  - h. When the shop drawings have been completed to the satisfaction of the Engineer, carry out the construction in accordance therewith; and make no further changes therein except upon written instructions from the Engineer.
2. Engineer's Responsibilities
- a. Engineer will not review shop drawings (including working drawings and product data) that do not include the Contractor's approval stamp and required certification statement. Such submittals will be returned to the Contractor, without action, for correction.
  - b. Partial shop drawings (including working drawings and product data) will not be reviewed. If, in the opinion of the Engineer, a submittal is incomplete, that submittal will be returned to the Contractor for completion. Such submittals may be returned with comments from Engineer indicating the deficiencies requiring correction.
  - c. If shop drawings (including working drawings and product data) meet the submittal requirements, Engineer will forward copies to appropriate reviewer(s). Otherwise, noncompliant submittals will be returned to the Contractor without action - with the Engineer retaining one copy.



- d. Submittals which are transmitted in accordance with the specified requirements will be reviewed by the Engineer within the time specified herein. The time for review will commence upon receipt of submittal by Engineer.
3. Review of Shop Drawings (Including Working Drawings and Product Data) and Samples
    - a. The review of shop drawings, working drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
      - 1) As permitting any departure from the Contract requirements
      - 2) As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials
      - 3) As approving departures from details furnished by the Engineer, except as otherwise provided herein
    - b. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
    - c. If the shop drawings (including working drawings and product data) or samples as submitted describe variations and indicate a deviation from the Contract requirements that, in the opinion of the Engineer are in the interest of the Owner and are so minor as not to involve a change in Contract Price or Contract Time, the Engineer may return the reviewed drawings without noting an exception.
    - d. Only the Engineer will utilize the color "RED" in marking submittals.
    - e. Shop drawings will be returned to the Contractor with one of the following codes.
      - 1) Code 1 – "APPROVED" – This code is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
      - 2) Code 2 - "APPROVED AS NOTED" - This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
      - 3) Code 3 - "APPROVED AS NOTED/CONFIRM" - This combination of codes is assigned when a confirmation of the notations and comments is required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the Engineer within 15 calendar days of the date of the Engineer's transmittal requiring the confirmation.
      - 4) Code 4 - "APPROVED AS NOTED/RESUBMIT" - This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the entire package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Engineer within 30 calendar days of the date of the Engineer's transmittal requiring the resubmittal.
      - 5) Code 5 – "NOT APPROVED" – This code is assigned when the submittal does not meet the intent of the contract documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the requirements of the contract documents.

- 6) Code 6 – "COMMENTS ATTACHED" – This code is assigned where there are comments attached to the returned submittal, which provide additional data to aid the Contractor.
- 7) Code 7 – "RECEIPT ACKNOWLEDGED (Not subject to Engineer's Review or Approval)" – This code is assigned to acknowledge receipt of a submittal that is not subject to the Engineer's review and approval, and is being filed for informational purposes only. This code is generally used in acknowledging receipt of means and methods of construction work plans, field conformance test reports, and health and safety plans.

Codes 1 through 5 designate the status of the reviewed submittal. Code 6 indicates that some or all of the Engineer's comments are included in an attachment.

4. Repetitive Reviews:

- a. Shop drawings, O&M manuals and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the Engineer and at the Contractor's expense, based on the Engineer's then prevailing rates. The Contractor shall reimburse the Owner for all costs invoiced by Engineer for the third and subsequent reviews. Submittals are required until approved.
- b. Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to extension of the Contract time.

5. Electronic Transmission

- a. Action Submittals may be transmitted by electronic means provided the following conditions are met:
  - 1) The above-specified transmittal form is included.
  - 2) All other requirements specified above have been met including, but not limited to, coordination by the Contractor, review and approval by the Contractor, and the Contractor's Certification.
  - 3) The submittal contains no pages or sheets large than 11 x 17 inches.
  - 4) With the exception of the transmittal sheet, the entire submittal is included in a single file.
  - 5) The electronic files are PDF format (with printing enabled).
  - 6) The Engineer's review time will commence upon receipt of the hard copies of the submittal.
  - 7) For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit at least three hard-copy originals to the Engineer. In addition, provide additional photocopied or scanned copies, as specified above, showing the required certification, corporate seal, or professional seal.

B. Informational Submittals

1. Contractor's Responsibilities

- a. Number of copies: Submit three copies, unless otherwise indicated in individual Specification sections
- b. Refer to individual technical Specification Sections for specific submittal requirements.

2. Engineer's Responsibilities
  - a. The Engineer will review each informational submittal within 15 days. If the informational submittal complies with the Contract requirements, Engineer will file for the project record and transmit a copy to the Owner. Engineer may elect not to respond to Contractor regarding informational submittals meeting the Contract requirements.
  - b. If an informational submittal does not comply with the Contract requirements, Engineer will respond accordingly to the Contractor within 15 days. Thereafter, the Contractor shall perform the required corrective action, including retesting, if needed, until the submittal, in the opinion of the Engineer, is in conformance with the Contract Documents.
  
3. Electronic Transmission
  - a. Informational submittals may be transmitted by electronic means providing all of the following conditions are met:
    - 1) The above-specified transmittal form is included.
    - 2) The submittal contains no pages or sheets large than 11 x 17 inches.
    - 3) With the exception of the transmittal sheet, the entire submittal is included in a single file.
    - 4) The electronic files are PDF format (with printing enabled).
    - 5) For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.)) transmit two hard-copy originals to the Engineer.

END OF SECTION

P.E. CERTIFICATION FORM

The undersigned hereby certifies that he/she is a professional engineer registered in the State of New Mexico and that he/she has been employed by

\_\_\_\_\_ to design  
(Company Name)

\_\_\_\_\_  
(Insert P.E. Responsibilities)

In accordance with Specification Section \_\_\_\_\_ for the

Buckman Road Recycling and Transfer Station Tipping Floor Rehabilitation and General Structural Repairs  
(Name of Project)

The undersigned further certifies that he/she has performed the said design in conformance with all applicable local, state and federal codes, rules and regulations; and, that his/her signature and P.E. stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all original design drawings and calculations available to the Owner or Owner's representative within seven days following written request therefor by the Owner.

\_\_\_\_\_  
P.E. Name

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
P.E. Registration Number

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

SECTION 01310  
CONSTRUCTION SCHEDULING

PART 1 GENERAL

1.01 PROGRAM DESCRIPTION

- A. A Critical Path Method (CPM) construction schedule shall be used to control the Work and to provide a basis for determining job progress. The construction schedule shall be prepared and maintained by the Contractor. All work shall be done in accordance with the established CPM schedule. The Contractor and all subcontractors shall cooperate fully in developing the construction schedule and in executing the work in accordance with the CPM schedule.
- B. The construction schedule shall consist of a computerized CPM network (diagram of activities) presented in a time-scaled graphic (print-out) with reports, as specified herein.

1.02 QUALIFICATIONS

- A. The Contractor shall have the capability of preparing and utilizing the specified CPM schedule, or engage the services of a specialized scheduling professional to do so. Within seven days of the award of contract, provide a résumé or qualifications statement for the individual within the Contractor's organization, or the outside consultant, who is being proposed as the responsible party for development and maintenance of the CPM schedule. The résumé or qualifications statement shall demonstrate that the proposed responsible party has successfully developed and maintained CPM schedules for at least three construction projects of the same size or greater than this project. The proposed responsible party for the CPM schedule is subject to approval by the Engineer and Owner. If the proposed responsible party for the CPM schedule is not approved by the Engineer and/or Owner, Contractor shall resubmit a more-appropriate candidate for approval.

1.03 SUBMITTALS

- A. Contractor shall submit Interim, Preliminary, Baseline (also known as "as-planned") CPM schedules, revisions, and Monthly Status Reports, all including graphics, reports, and narratives, and an as-built schedule, as specified herein.

PART 2 PRODUCTS

2.01 SOFTWARE

- A. Unless otherwise approved by the Engineer, the computer-based schedule shall be generated using Oracle-Primavera Contractor, or P6 Professional Project Management Software.

2.02 NETWORK REQUIREMENTS

- A. Each schedule submittal shall contain the following identifying information:
  - 1. Project Title, Owner's Contract Number, and the Engineer's Project Number
  - 2. Contractor's name

3. All Contract milestones, as specified
  4. The project calendar(s) (including work week and holidays)
  5. Type of submittal (e.g., Interim, Preliminary, Baseline or Monthly Status Report)
  6. A summary of contract milestones
  7. Data date and run (print) date
- B. The network of activities shall show the order and inter-dependence of activities; and, show the sequence in which the work is to be accomplished, as planned by the Contractor. The basic concept of a network analysis diagram shall be followed to show how each activity is dependent on preceding activities (predecessors) and following activities (successors).
- C. Detailed network activities shall include, but are not limited to:
1. mobilization activities,
  2. procurement activities (submittals, review and approval, fabrication, and delivery),
  3. permitting and regulatory activities,
  4. construction activities (including demolition, rehabilitation, new construction and testing),
  5. maintenance of existing facilities,
  6. test and start-up activities (including testing, start-up, training, performance testing, and commissioning),
  7. contract milestones (fixed and floating),
  8. specified sequences, outages and coordination activities, and
  9. any other activities needed to properly identify the scope of work and contract requirements.
- D. All activities shall be sufficiently identified and/or described so that the scope of work of each activity is clear. All work tasks shall be broken down into appropriate scopes and durations to facilitate monitoring progress. Unless otherwise approved by the Engineer, no activities shall have durations of more than one month; except for off-site activities such as procurement and delivery of materials and equipment - or administrative or management activities that span the project duration that do not reflect earned progress.
- E. Network activities shall be organized (grouped) by phases (or stages), physical areas, buildings, elevations, or other portions of the project.
- F. Separate network activities shall be provided for each significant identifiable function in each trade area in each facility. Separate network activities shall be provided for subcontractors.

- G. The number of network activities, sufficiency of description, and level of breakdown shall be subject to the Engineer's review and approval to confirm conformance with the specified requirements.
- H. The format of the schedule network graphic shall be a time-scaled logic diagram - with a list of network activities and the specified data fields presented adjacent to the graphic display.
- I. The following general requirements also apply to the network diagram.
  - 1. The Critical Path (the sequence of project network activities that add up to the longest overall duration and thereby determines the shortest time possible to complete the project) shall be identified - preferably in 'red'.
  - 2. Unless otherwise approved by the Engineer the Contractor's work schedule shall be based on 'normal work week' as defined in the Contract Documents – (typically 40 hours per week, consisting of five 8-hour days).
  - 3. The graphics shall indicate the calendar(s) on which activity durations are based (i.e., 5-day workweek or 7 calendar day week). When multiple calendars or work weeks are used, the graphics shall clearly indicate which calendars are used where.
  - 4. The project calendar shall include exclusions for holidays observed by the Contractor and those indicated in the Contract Documents.
- J. Each network activity shall have the following information (fields) listed alongside the activity on the graphic display.
  - 1. Activity ID – a manually assigned designation (numeric or alphanumeric). The Contractor should use a logical approach to assigning identification to network activities to facilitate grouping (sorting) of activities.
  - 2. Activity Description
  - 3. Original Duration – including allowances for adverse weather interruptions – normal for the project location. Normal weather shall mean seasonally average weather conditions, as recorded by NOAA.
  - 4. Percent complete – the Contractor's estimated percent complete for each network activity as of the data date for the respective report.
  - 5. Remaining Duration - a calculated value based on Original Duration of each network activity and the estimated percent of completion for each activity.
  - 6. Early Start Date
  - 7. Early Finish Date
  - 8. Late Start Date
  - 9. Latest Finish Date

10. Total Float

2.03 SUBMITTAL REQUIREMENTS

A. Each schedule submittal shall include the following elements:

1. Graphics – unless otherwise approved by the Engineer, the network graphics shall be printed on 24-inch by 36-inch sheets; including a list of activities and the specified data fields.
2. Narrative
  - a. The Narrative shall consist of a written report by the Contractor providing an overview of the schedule – specific to each submittal.
  - b. The Narratives for developmental submittals, i.e., Interim and Preliminary, shall describe the Contractor's approach to executing the project Work.
  - c. The Narrative for the Baseline Schedule shall:
    - 1) Explain key activities and assumptions on which the schedule is based;
    - 2) Describe the Critical Path;
    - 3) Discuss key deliveries that might adversely affect the project schedule; and,
    - 4) Explain the Contractor's approach to adverse weather interruptions – normal for the project location. Normal weather shall mean seasonally average weather conditions, as recorded by NOAA.
  - d. The Narratives provided with Monthly Status Reports (updates) shall also identify:
    - 1) Any changes the Contractor has made to the CPM logic (including any added, modified or deleted activities,
    - 2) Any delays that have been encountered, and
    - 3) Remedial actions or recovery steps the Contractor will employ to arrest and/or recover from such delays.

B. Reports

1. The following reports are required to be submitted with Baseline Schedule, when a major revision is made to the schedule, and when requested by the Engineer.
  - a. Activity – a report listing all network activities, sorted by activity ID
  - b. Early Start – a report listing all network activities, sorted by Early Start date
  - c. Total Float – a report listing all network activities, sorted by Total Float (ascending from low to high).
  - d. Predecessor/Successor – a report of all activities, sorted by Activity ID that lists all predecessor and successor activities for each network activity.

2.04 ACCEPTABILITY

- A. The Contractor shall submit the CPM schedule submittals, as specified, and resubmit as needed, until they are in compliance with Contract requirements.
- B. The Engineer's review of the Contractor's construction schedule submittals will only be for conformance with the Contract requirements – including but not limited to contract time and work sequences specified in the contract documents. The Engineer's review of the schedule shall not include the Contractor's means and methods of construction or safety. The Engineer's concurrence, acceptance, or approval of the Contractor's schedule submittals will not relieve the Contractor from responsibility for complying with the Contract Scope, Contract Time or any



other contract requirement. Any indication of concurrence, acceptance, or approval of the Contractor's schedule will only indicate a general conformance with the Contract Requirements.

- C. Engineer's review of the Contractor's construction schedule submittals shall not relieve the Contractor from responsibility for any deviations from the Contract Documents unless the Contractor has in writing called Engineer's attention to such deviations at the time of submission and Engineer has given written concurrence to the specific deviations, nor shall any concurrence by the Engineer relieve Contractor from responsibility for errors and omissions in the submittals. Concurrence of the CPM Activity Network by the Engineer is advisory only and shall not relieve the Contractor of responsibility for accomplishing the Work within the Contract completion date(s).
- D. Concurrence, acceptance, or approval of the Contractor's CPM schedule by the Engineer in no way makes the Engineer an insurer of the CPM schedule's success, nor liable for time or cost overruns resulting therefrom.
- E. Failure to include any element of work required for the performance of this Contract will not excuse the Contractor from completing all Work required within the Contract completion date(s), notwithstanding the review of the network by the Engineer.
- F. CPM schedules that contain activities with negative float, or which extend beyond the contract completion date, will not be acceptable.
- G. Except where earlier completions are specified, CPM schedules which show completion of all work prior to the contract completion date may be indicated; however, in no event shall they constitute a basis for claim for delay by the Contractor.

## PART 3 EXECUTION

### 3.01 IMPLEMENTATION SCHEDULE

#### A. Interim Schedule

- 1. Within 5 working days following the receipt of the Notice to Proceed, submit an Interim Schedule indicating the planned operations during the first 60 calendar days after Notice to Proceed. In addition, the Contractor shall indicate its general approach for the balance of the project.
- 2. While the Preliminary schedule is being developed, the Contractor shall update the Interim schedule on a monthly basis – indicating actual progress - until the Preliminary schedule is submitted.

#### B. Preliminary Schedule

- 1. Within 5 days following the receipt of Notice to Proceed, submit a proposed Preliminary Schedule to the Engineer. The Preliminary Schedule shall consist of a draft computer-generated CPM-schedule showing the entire Scope of Work. The Preliminary Schedule shall not include any actual progress earned during development of the schedule (i.e., stated as of the Notice to Proceed).

2. Within 5 days of submittal of the Preliminary Schedule meet with the Engineer to discuss the review comments.
3. Once the Preliminary Schedule is submitted, Contractor shall discontinue updating the Interim Schedule. Provide monthly updates of the Preliminary Schedule until concurrence, acceptance, or approval of the Baseline Schedule.

C. Baseline (as-planned) Schedule

1. Within 10 days of the review meeting on the Preliminary Schedule submittal, the Contractor shall incorporate the Engineer's comments into the network and submit a Baseline Schedule. Resubmit the Baseline Schedule, as required until it is deemed acceptable as stated in paragraph 2.04, above.
2. Upon concurrence, acceptance, or approval of the Contractor's initial Baseline Schedule, stated as of the Notice to Proceed date, it shall be recognized as the basis against which the Contractor's progress shall be measured.

D. Monthly Status Reports

1. Monthly Status Reports shall include updated graphics and a narrative. In addition, if requested by the Engineer, Contractor shall provide copies of one or more of the standard reports listed in 2.03.B.
2. The Contractor shall provide Monthly Status Reports (schedule updates) commencing approximately 30 days after submission of the Interim Schedule. Unless approved otherwise by the Engineer, the Monthly Status Reports shall be stated as of the end of each calendar month.
3. While the Preliminary Schedule is being developed, the Contractor shall update the Interim schedule on a monthly basis – indicating actual progress - until the Preliminary Schedule is submitted.
4. While the Baseline Schedule is being developed, the Contractor shall update the Preliminary Schedule on a monthly basis – indicating actual progress - until concurrence, acceptance, or approval of the Baseline Schedule.
5. Once the initial Baseline Schedule is complete, Monthly Status Reports shall be based on the Baseline Schedule.

E. As-Built Schedule

1. Upon achieving Substantial Completion, the Contractor shall submit an as-built schedule, showing all activities from the Notice to Proceed through Substantial Completion. In addition, provide the reports listed in 2.03.B. A Narrative is not required.

3.02 DELIVERABLES

- A. Unless approved otherwise by the Engineer, all schedule submittals shall be printed in color on sheets 11-in by 17-in and may be divided into as many separate sheets as required.

- B. Interim Schedule: Submit three copies to the Engineer.
- C. Preliminary Schedule: Submit three hard (paper) copies to the Engineer.
- D. Baseline Schedule: Submit three hard (paper) copies, one electronic copy (PDF), and a copy of the program files to the Engineer.
- E. Monthly Status Reports: Submit three copies and one electronic copy on CD to the Engineer; and if requested, an electronic copy of the program files for the respective update.
- F. As-Built Schedule: Submit one hard copy; one electronic (PDF), and, if requested, an electronic copy of the program files.

### 3.03 PROGRESS REPORTING

- A. Progress under the approved CPM schedule shall be reported monthly by the Contractor by submitting a Monthly Status Report. Unless otherwise approved by the Engineer, not less than seven days prior to the due date of the Monthly Status Report, the Contractor shall meet with the Engineer's representative to jointly evaluate the status of each network activity. Each activity shall be updated to reflect the actual progress (percent complete) and the actual dates activities were started and completed, as applicable.
- B. The Monthly Status Report shall include an update of the computer-generated network graphics and a Narrative report. The Narrative shall include:
  - 1. A description of the progress during the reporting period in terms of completed activities
  - 2. A summary of the Critical Path
  - 3. A description or explanation of each delays to network activities
  - 4. A description of problem areas, current and anticipated delaying factors and their anticipated effect on the performance of other activities and completion dates
  - 5. An explanation of corrective action taken or proposed.
  - 6. This report, as well as the CPM Status Report, will be discussed at each progress meeting.

### 3.04 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. Whenever it becomes apparent from the current CPM schedule and CPM Status Report that delays to the critical path have resulted and the contract completion date will not be met, or when so directed by the Engineer take some or all of the following actions at no additional cost to the Owner. Submit to the Engineer for approval, a written statement of the steps intended to take to remove or arrest the delay to the critical path in the approved schedule.
  - 1. Increase construction manpower in such quantities and crafts,
  - 2. Increase the number of working hours per shift, shifts per day, working days per week,
  - 3. Increase the amount of construction equipment, and/or

4. Reschedule activities to maximize the concurrence of activities and comply with the revised schedule.

B. If when so requested by the Engineer, failure to submit a written statement of the steps intended to take or should fail to take such steps as approved by the Engineer, the Engineer may direct the Contractor to increase the level of effort in man-power (trades), equipment and work schedule (overtime, weekend and holiday work, etc) to be employed by the Contractor in order to remove or arrest the delay to the critical path in the approved schedule and the Contractor shall promptly provide such level of effort at no additional cost to the Owner.

### 3.05 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

A. If the Contractor wants or needs to make changes in his/her execution of the construction schedule that would affect the approved CPM schedule, he/she shall notify the Engineer in writing stating what changes are proposed and the reasons for the changes. If the Engineer approves such changes, the Contractor shall revise and submit a revised schedule for approval - without additional cost to the Owner. The CPM schedule shall be adjusted by the Contractor only after prior approval of his/her proposed changes. Adjustments may consist of changing portions of the activity sequence, activity durations, division of approved activities, or other adjustments as may be approved by the Engineer; however, the addition of extraneous, non-working activities and activities that add unapproved restraints to the CPM schedule will not be allowed.

B. Shop drawings that are not approved on the first submittal will require the addition of network activities for the resubmittals.

C. Equipment that does not pass the specified tests will require the addition of network activities for the retesting.

D. The contract completion time will be adjusted only for causes specified in this Contract. In the event the Contractor requests an extension of any contract completion date, he/she shall furnish such justification and supporting evidence as the Engineer may deem necessary to determine whether the Contractor is entitled to an extension of time under the provisions of this Contract. After receipt of such justification and supporting evidence, the Engineer shall perform an assessment or evaluation of the appropriate change in contract time based upon the currently approved CPM schedule and on all data relevant to the extension. Inexcusable delays (attributable to the Contractor) and non-critical delays (delays to activities which, according to the CPM schedule, do not affect any contract completion date shown by the Critical Path) shall not be the basis for a change in contract time. The Engineer will provide a written recommendation to the Owner based on its assessment, with a copy to the Contractor. The Contractor shall not change any fixed contract milestones or required completion dates without the approval of the Owner, evidenced by the execution of a contract change order. However, the Contractor should make note of such requests for changes in contract time in the narrative of monthly schedule status reports.

E. Each request for change in any contract completion date shall be submitted by the Contractor to the Engineer in accordance with the notification requirements stipulated in the form of contract or general conditions. No time extension will be granted for requests that are not submitted in accordance with the Contract requirements.

- F. Total float in the approved CPM network belongs to the project; i.e., either the Owner or Contractor may take advantage of available total float on a first-come, first-served basis. Therefore, without obligation to extend either the overall completion date, or any intermediate completion dates set out in the CPM network, the Owner may initiate changes to the work or delay work that absorb available total float existing at the time of the change or delay. Owner initiated changes or delays that affect the Critical Path on the approved CPM network shall be the sole grounds for extending (or contracting) contract completion dates or fixed milestones.

END OF SECTION

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SECTION 01370  
SCHEDULE OF VALUES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit a Schedule of Values (a breakdown of the bid) allocated to the various portions of the work, within 10 days of receipt of the Notice to Proceed.
- B. Upon request of the Engineer, support the values with data which will substantiate their correctness.
- C. The accepted Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

1.02 RELATED REQUIREMENTS

- A. Standard General Conditions of the Construction Contract are included in Section 11 of the Contract Documents.
  - 1. Application for Payment is included in Section 01026.

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on an 8-1/2-in by 11-in or 8-1/2-in by 14-in white paper furnished by the Owner; Contractor's standard forms and automated printout will be considered for approval by the Engineer upon Contractor's request. Identify schedule with:
  - 1. Title of Project and location.
  - 2. Engineer and Project number.
  - 3. Name and Address of Contractor.
  - 4. Contract designation.
  - 5. Date of submission.
- B. Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Identify each line item with the number and title of the respective Section.
- D. For each major line item list sub-values of major products or operations under the item.
- E. For the various portions of the work:
  - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.

2. For items on which progress payments will be requested for stored materials, break down the value into:
  - a. The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials upon request by the Engineer.
  - b. The total installed value.

F. The sum of all values listed in the schedule shall equal the total Contract Sum.

#### 1.04 SUBSCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a sub-schedule of unit costs and quantities for:
  1. Products on which progress payments will be requested for stored products.
- B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.
- C. The unit quantity for bulk materials shall include an allowance for normal waste.
- D. The unit values for the materials shall be broken down into:
  1. Cost of the material, delivered and unloaded at the site, with taxes paid.
  2. Copies of invoices for component material shall be included with the payment request in which the material first appears.
  3. Paid invoices shall be provided with the second payment request in which the material appears or no payment shall be allowed and/or may be deleted from the request.
- E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION



SECTION 01700  
CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies administrative, verification and procedural requirements for project closeout, including but not limited to:
  - 1. Final cleaning Section 01710.
  - 2. Project Record Documents Section 01720.
  - 3. Warranties and Bonds Section 01740 and applicable Sections in the Technical Specifications Divisions 2 through 16.
  - 4. Reconciliation of final accounting, final change order, final payment application (General Conditions) and Contractor's releases.
  - 5. Permit close-outs including Certificate of Occupancy or Certificate of Completion.

1.02 CLOSEOUT PROCEDURES

- A. Provide all deliverables as specified, prior to submitting the final payment application.
- B. Provide submittals to Engineer that are required by governing or other authorities having applicable jurisdiction including but not limited to permit close out information, certificates of occupancy, etc.
- C. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due, following submittal and approval of Record Documents and Record Drawings.
- D. Submit Contractor's Final Release and Release of Liens with final payment application.

1.03 FINAL CLEANING

- A. Contractor to complete final cleaning prior to submittal of the final application for payment.
- B. Contractor to comply with requirements as specified in Section 01710.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 01710  
CLEANING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR shall execute cleaning, during progress of the Work, and at completion of the Work.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide onsite containers for the collection of waste materials, debris and rubbish. All waste materials including containers, food debris and other miscellaneous materials must be disposed of daily in onsite containers.
- C. Waste materials, debris and rubbish from the construction site shall be separated and stored on site in an approved area.

3.02 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- C. Prior to substantial completion, or OWNER acceptance, CONTRACTOR shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that the entire Work is clean.

END OF SECTION

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SECTION 01720  
PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall keep and maintain, at the job site, a copy of contract documents, marked up to indicate all changes made during the course of a project, as specified herein.

1.02 RELATED REQUIREMENTS

- A. Contract close-out submittals are included in Section 01700.
- B. Warranties and bonds are included in Section 01740.
- C. As-built construction schedules are included in Section 01310.

1.03 REQUIREMENTS INCLUDED

- A. Contractor shall maintain a record copy of the following documents, marked up to indicate all changes made during the course of a project:
  - 1. Contract Drawings
  - 2. Specifications
- B. Contractor shall assemble copies of the following documents for turnover to the Engineer at the end of the project, as specified.
  - 1. Field Orders, Change Orders, Design Modifications, and RFIs
  - 2. Field Test records
  - 3. Permits and permit close-outs (final approvals)
  - 4. Certificate of Occupancy or Certificate of Completion, as applicable
  - 5. Laboratory test reports (e.g., bacteriological and primary & secondary water quality)
  - 6. Certificates of Compliance for materials and equipment

C. RECORD DRAWINGS

- 1. The Contractor shall annotate (mark-up) the Contract Drawings to indicate all project conditions, locations, configurations, and any other changes or deviations that vary from the original Contract Drawings. This requirement includes, but is not limited to, buried or concealed construction, and utility features that are revealed during the course of construction. Special attention shall be given to recording the locations (horizontal and vertical) and material of all buried utilities that are encountered during construction – whether or not they were indicated on the Contract Drawings. The record information

added to the drawings may be supplemented by detailed sketches, if necessary, clearly indicating, the WORK, as constructed.

2. These annotated Contract Drawings constitute The Contractor's Record Drawings and are actual representations of as-built conditions, including all revisions made necessary by change orders, design modifications, requests for information and field orders.
3. Record drawings shall be accessible to the Owner and Engineer at all times during the construction period.

## PART 2 – PRODUCTS (NOT USED)

## PART 3 – EXECUTION

### 3.01 MAINTENANCE OF RECORD DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
  1. Provide files and racks for storage of the record documents.
  2. Provide locked cabinet(s) or secure storage space for storage of samples.
- B. File documents and samples in accordance with Construction Specifications Institute (CSI) format.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and sample available for inspection by the Engineer or Owner at all times.

### 3.02 MARKING METHOD

- A. Use the color Red (indelible ink) to record information on the Drawings and Specifications,
- B. Label each document "PROJECT RECORD" in neat large printed letters.
- C. Unless otherwise specified elsewhere, notations shall be affixed to hardcopies of documents.
- D. Record information contemporaneously with construction progress.
- E. Legibly mark drawings with as-built information:
  1. Elevations and dimensions of structures and structural elements.
  2. All underground utilities (piping and electrical), structures, and appurtenances
    - a. Changes to existing structure, piping and appurtenance locations.
    - b. Record horizontal and vertical locations of underground structures, piping, utilities and appurtenances, referenced to permanent surface improvements.
    - c. Record actual installed pipe material, class, size, joint type, etc

### 3.03 RECORD INFORMATION COMPILATION

- A. Do not conceal any work until the required information is acquired.
- B. Items to be recorded include, but are not limited to:
  - 1. Location of internal utilities and appurtenances concealed in the construction – referenced to visible and accessible features.
  - 2. Field changes of dimensions and/or details
    - a. Interior equipment and piping relocations.
    - b. Architectural and structural changes, including relocation of doors, windows, etc.
    - c. Architectural schedule changes.
- C. Changes made by Field Order, Change Order, design modification, and RFI.
- D. Details not indicated on the original Contract Drawings.

### 3.04 SUBMITTAL

- A. If specified under the section for progress payments, monthly applications for payment will be contingent upon up-to-date Record Drawings. If requested by the Engineer or Owner, Contractor shall provide a copy of the Record Drawings, or present them for review prior to processing monthly applications for payment.
- B. Upon substantial completion of the WORK and prior to final acceptance, the Contractor shall finalize and deliver a complete set of Record Drawings to the ENGINEER conforming to the construction records of the Contractor. The set of drawings shall consist of corrected and annotated drawings showing the recorded location(s) of the WORK. Unless specified otherwise elsewhere, Record Drawings shall be in the form of a set of prints with annotations carefully and neatly superimposed on the drawings in red.
- C. Upon substantial completion of the WORK and prior to final acceptance, the Contractor shall finalize and deliver a complete set of Record Documents to the ENGINEER conforming to the construction records of the Contractor. The set of documents shall consist of corrected and annotated documents showing the as-installed equipment and all other as-built conditions not indicated on the Record Drawings.
- D. The information submitted by the Contractor into the Record Drawings and Record Documents will be assumed to be correct, and the Contractor shall be responsible for the accuracy of such information, and shall bear the costs resulting from the correction of incorrect data.
- E. Delivery of Record Drawings and Record Documents to the ENGINEER will be a prerequisite to Final payment.
- F. The Contractor shall maintain a copy of all books, records, and documents pertinent to the performance under this Agreement for a period of five years following completion of the contract.

END OF SECTION

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SECTION 01740  
WARRANTIES AND BONDS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1.02 RELATED WORK

- A. Refer to Conditions of Contract for the general requirements relating to warranties and bonds.
- B. General closeout requirements are included in Section 01700 Project Closeout.
- C. Specific requirements for warranties for the work and products and installations that are specified to be warranted are included in the individual Sections.

1.03 SUBMITTALS

- A. Submit written warranties to the Owner prior to the date fixed by the Engineer for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the work, or a designated portion of the work, submit written warranties upon request of the Owner.
- B. When a designated portion of the work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within 15 days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner for approval prior to final execution.
- D. Refer to individual Sections for specific content requirements, and particular requirements for submittal of special warranties.
- E. At Final Completion compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- F. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents and sized to receive 8-1/2-in by 11-in paper.

- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the Section in which specified and the name of the product or work item.
- H. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer, supplier and manufacturer.
- I. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name and the name, address and telephone number of the equipment supplier.

#### 1.04 WARRANTY REQUIREMENT

- A. Related Damages and Losses: When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the contract Documents.
- F. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporates the products, nor does it relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.

#### 1.05 MANUFACTURERS CERTIFICATIONS

- A. Where required, the Contractor shall supply evidence, satisfactory to the Engineer, that the Contractor can obtain manufacturers' certifications as to the Contractor's installation of equipment.

1.06 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 03741  
CONCRETE REPAIRS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to perform all concrete repair work as shown on the Drawings and as specified herein. Work under this Section shall also include removal of existing concrete and bonding new concrete and repair mortar to existing concrete at areas to be repaired.
- B. The work shall include but not be limited to the following:
  - 1. Spalled/Deteriorated/Disintegrated Concrete Repair.
  - 2. Cementitious Metallic Floor Topping.

1.02 SUBMITTALS

- A. Submit, in accordance with Section 01300, the following:
  - 1. Manufacturer's technical literature and installation/application instructions for all products.
    - a. Manufacturer's current printed recommendations and product data sheets for all products provided under this Section including manufacturers printed performance criteria, product life, working time after mixing, surface preparation and application requirements and procedures, curing, volatile organic compound data, and safety requirements.
    - b. Material Safety Data Sheets (MSDS) for any materials brought on-site including all resurfacing system materials, solvents, and abrasive blast media.
    - c. Storage requirements including temperature, humidity, and ventilation.
  - 2. A list of five of the Contractor's projects for which the types of repair specified herein were successfully completed. The list for each type of repair shall contain the following information for each project:
    - a. Project name and location.
    - b. Owner of project.
    - c. Owner's representative including address and phone number.
    - d. Brief description of work
    - e. Cost of the repair work and the total project cost
    - f. Date of completion of the repair work
  - 3. Documentation of the qualifications as specified in Paragraphs 1.05.A, 1.05.B, 1.05.C, and 1.05.D.
  - 4. Compressive strength and bond strength test results.
  - 5. Inspection Results. Submit a repair drawing indicating the locations and fully dimensioned sizes of deteriorated areas of concrete that require repair.

### 1.03 REFERENCE STANDARDS

#### A. ASTM International (ASTM):

1. ASTM C109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in Cube Specimens).
2. ASTM C273 - Standard Test Method for Shear Properties of Sandwich Core Materials.
3. ASTM C881 - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
4. ASTM C882 - Standard Test Method for Bond Strength of Epoxy-Resin Systems Used with Concrete by Slant Shear.
5. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension.
6. ASTM D570 - Standard Test Method for Water Absorption of Plastics.
7. ASTM D624 - Standard Test Methods for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
8. ASTM D638 - Standard Test Method for Tensile Properties of Plastics.
9. ASTM D695 - Standard Test Method for Compressive Properties of Rigid Plastics.
10. ASTM D732 - Standard Test Method for Shear Strength of Plastics by Punch Tool.
11. ASTM D751 - Standard Test Methods for Coated Fabrics.
12. ASTM D790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
13. ASTM D1042 - Standard Test Method for Linear Dimensional Changes of Plastics Under Accelerated Service Conditions.
14. ASTM D1622 - Standard Test Method for Apparent Density of Rigid Cellular Plastics.
15. ASTM D1623 - Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
16. ASTM D2126 - Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging.
17. ASTM D2240 - Standard Test Method for Rubber Property – Durometer Hardness.
18. ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics.
19. ASTM D3574 - Standard Test Methods for Flexible Cellular Materials-Slab, Bonded, and Molded Urethane Foams.

20. ASTM D4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
21. ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating.
22. ASTM D4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
23. ASTM D4541 - Standard Test Method for L.R. Standard Method for Pull-Off Strength of Coatings using Portable Adhesion Testers.
24. ASTM E96 - Standard Test Method for Water Vapor Transmission of Materials.
25. ASTM G109 - Standard Test Method for Determining the Effects of Chemical Admixtures on the Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments.

B. International Concrete Repair Institute (ICRI):

1. ICRI 03732 - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.

C. The Society for Protective Coatings:

1. SSPC-SP13 - Surface Preparation of Concrete.

D. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.04 QUALITY ASSURANCE

- A. Contractor qualifications. Complete a program of instruction in the application of the approved manufacturer's material and provide certification from the manufacturer attesting to their training and status as an approved applicator.
- B. Manufacturer's qualifications. Have a minimum of ten years' experience within the last ten years in the manufacture and use of the products specified and have an ongoing program of training, certifying and technically supporting the Contractor's personnel.
- C. Manufacturer's qualifications for cementitious metallic floor topping material. Material manufacturers shall be ISO 9001/9002 registered or provide proof of documented quality assurance system. Quality system must be registered by an independent registrar who is accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB) or by another internationally recognized body. ISO 9001/9002 certification shall be included with material submittals.
- D. Provide documentation stating that each material to be provided meets the requirements of this Section and has the manufacturer's current printed literature on the product package or container.

- E. The Contractor's supervisor shall have attended a training program sponsored by the manufacturer supplying the materials approved for this project.
- F. A representative of the product manufacturer shall be present for the first three days of installation to give instructions to the installation crew.
- G. A representative of the product manufacturer shall make periodic site visits to ensure the product is being installed in accordance with published instructions.
- H. Do not shift, cut, remove, or otherwise alter any existing structure or concrete until authorized by the Engineer.
- I. When removing materials or portions of existing structures, or when making openings in existing structures, erect barriers, shoring and bracing and other protective devices to prevent damage to the structures beyond the limits of new work, protect personnel, control dust and prevent damage by falling or flying debris.
- J. Unless otherwise indicated or specified, cut existing concrete by line drilling.
- K. The Contractor shall make available all locations and phases of the work for access by the Engineer or other personnel designated by the Engineer. The Contractor shall provide ventilation and safe access to the work.
- L. The Contractor is solely responsible for the workmanship and quality of the repair work. Inspections by the manufacturer, the Engineer, or others do not limit the Contractor's responsibility for the quality of the work.
- M. Apply the most stringent requirements of other stated specifications, codes, standards, and this Section when conflicts exist.
- N. For the cementitious metallic floor topping, the materials manufacturer shall provide continuous construction inspection during slab preparation and topping application. This inspection may be performed by the Contractor, as long as the Contractor is certified in writing by the manufacturer to do so prior to installation.

#### 1.05 FIELD TESTING

- A. Compressive Strength
  - 1. Test compressive strength of form-and-pump repair mortar in accordance with ASTM C39.
- B. Bond Strength
  - 1. Conduct bond strength testing of the in-place concrete repairs to the substrate in accordance with ASTM C1583. Allow repairs to cure for a minimum of 7 days before testing for bond strength.
  - 2. Average bond strength of repair material to the existing substrate shall be a minimum of 100 psi, with no single bond test falling below 75 psi.



3. Core samples made during bond strength tests should be visually inspected to determine inclination of the interface relative to the core axis. If the angle of the interface is more than a few degrees from a right angle, the bond strength test results may not be accurate.
4. Perform three pull-off tests per product per method of repair.

#### 1.06 DELIVERY, STORAGE AND HANDLING

##### A. Delivery of Materials:

1. Deliver all materials in original, new and unopened packages and containers clearly labeled with the following information:
  - a. Manufacturer's name.
  - b. Name or title of material, and other product identification.
  - c. Manufacturer's stock number and batch number.
  - d. Date of manufacture.
  - e. Instructions.
  - f. Expiration or "use by" date.

##### B. Storage of Materials:

1. Store the products in accordance with the manufacturers' recommendations, and supplementary requirements below.
2. Store only approved materials on site.
3. Store in a suitable location approved by Engineer. Keep area clean and accessible.
4. Restrict storage to repair materials and related equipment.
5. Comply with health and fire regulations including the requirements of the Occupational Safety and Health Administration (OSHA).

##### C. Handling of Materials:

1. Handle the products in accordance with the manufacturers' recommendations, and supplementary requirements below.
2. Handle materials carefully to prevent inclusion of foreign materials.
3. Do not open containers or mix components until necessary preparatory work has been completed and application work will start immediately.

#### 1.07 WARRANTY

- A. The Contractor shall warrant, and shall obtain from the manufacturers their warranties, that the products used will be free from defects in materials and workmanship for a period of five years from the date of substantial completion. Said manufacturer's warranty shall be in a form acceptable to and for the benefit of the Owner and shall be submitted by the Contractor as a condition of final payment. The Contractor shall repair or replace, at the sole option of, and at

no cost to, the Owner, any work found to be defective within said warranty period. Such repair or replacement shall include the cost of removal and reinstallation.

## PART 2 PRODUCTS

### 2.01 MATERIALS

#### A. General:

1. Materials shall comply with this Section and any state or local regulations.

B. Cementitious Metallic Topping: Heavy-Duty iron aggregate topping, "EucoFloor 404", manufactured by The Euclid Chemical Company. The Contractor shall use this supplier and substitutions will not be allowed. Product shall be preformulated specially processed and graded iron aggregate, tested cement and other high performance proprietary complementary components. Material shall be formulated and processed under stringent quality control free from non-ferrous material and rust, in manufacturer's owned and controlled facilities. Product must attain a minimum strength of 15,000 psi @ 28 days. All materials used by the Contractor to complete the installation of topping (metallic floor topping, binding agent, evaporation retardant/finishing aid, curing compound, joint filler, concrete) shall be compatible with the existing untreated concrete transfer station floor. It is the responsibility of the Contractor to ensure the materials are compatible floor.

1. Compressive Strength per ASTM C 109 or ASTM C 39:

1 day: 9,000 psi

7 day: 14,000 psi

28 day: 18,500 psi

2. Abrasion Resistance ASTM C 779 7 days: -0.008 in (-0.002 mm) at 30 minutes

3. Chaplin Abrasion Results:

7 days: -0.008 in (-0.002 mm) at 15 minutes

-0.024 in (-0.006 mm) at 30 minutes

28 days: -0.002 in (-0.0005 mm) at 15 minutes

-0.006 in (-0.002 mm) at 30 minutes

C. Bonding agent: "EucoFloor Epoxy Primer", a 100 percent reactive, two component type epoxy epoxy bonding agent, designed for bonding concrete topping, "EucoFloor 404" to a well cured and properly prepared and hardened base concrete.

### 2.02 EPOXY BONDING AGENT

A. Epoxy Bonding Agent shall be a two-component, solvent-free, asbestos-free moisture insensitive epoxy resin material used to bond plastic concrete to hardened concrete where

indicated on the Drawings and complying with the requirements of ASTM C881, Type V, Grade 2, Class C.

B. Approved Manufacturers:

1. Sika Corporation, Lyndhurst, NJ – Sikadur 32, Hi-Mod.
2. Euclid Chemical Company, Cleveland, OH – Dural 452 MV.
3. Simpson Strong-Tie Company Inc., Pleasanton, CA – FX-762.
4. or approved equal.

2.03 REPAIR MORTARS (POLYMER-MODIFIED PORTLAND CEMENT MORTAR)

A. Horizontal Surfaces:

1. Repair mortar is a two-component polymer-modified, portland cement based mortar used to repair horizontal surfaces with a migrating corrosion inhibitor and having a minimum compressive strength at 28 days of 7,000psi.
2. Approved Manufacturers:
  - a. Sika Corporation, Lyndhurst, NJ – SikaTop 122 Plus.
  - b. Euclid Chemical Company, Cleveland, OH – DuralTop Flowable Mortar.
  - c. BASF Corporation Shakopee, MN – MasterEmaco T 310CI.
  - d. or approved equal.

B. Vertical and Overhead Surfaces:

1. Repair mortar is a two-component polymer-modified, portland cement based, fast setting, non-sag mortar used to repair vertical and overhead surfaces with a migrating corrosion inhibitor and having a minimum compressive strength at 28 days of 7,000psi.
2. Approved Manufacturers:
  - a. Sika Corporation, Lyndhurst, NJ – SikaTop 123 Plus.
  - b. Euclid Chemical Company, Cleveland, OH – Euco Repair V-100
  - c. US MIX Co., Denver, CO – US SPEC H2.
  - d. or approved equal.

2.04 BACKER RODS

- A. Open Cell Backer Rod – Extruded, open cell polyurethane foam. Diameter shall not be less than 200 percent of the joint width dimension.
- B. Closed Cell Backer Rod – Extruded, non-staining, resilient closed cell polyethylene foam, compatible with sealant. Diameter shall not be less than 25 percent greater than the joint width. Sealant shall not adhere to backer rod.

2.05 EPOXY PASTE ADHESIVE

A. General:

1. Epoxy paste adhesive shall be a two-component, solvent-free, moisture insensitive epoxy resin material used as an adhesive for mating surfaces where the glue line is 1/8-in or less

and to bond fresh, plastic concrete to clean, sound hardened concrete. The material shall comply with the requirements of ASTM C881, Type IV, Grade 3, Class C.

2. Approved Manufacturers:
  - a. Sika Corporation, Lyndhurst, NJ – Sikadur 31 Hi-Mod Gel.
  - b. Euclid Chemical Company, Cleveland, OH – Dural 452 Gel.
  - c. BASF Corporation, Shakopee, MN – MasterEmaco ADH 1420.
  - d. or approved equal.

## PART 3 EXECUTION

### 3.01 INSPECTION

- A. Prior to proceeding with any concrete repair work, inspect the entire surface as directed by the Engineer. It is anticipated that inspection will consist of visual observation and sounding of the entire surface. Mark-out areas of deteriorated concrete with paint.
- B. The purpose of the inspection is to confirm the types of deficiencies, repair methods and estimated quantities of concrete repair, as indicated herein.
- C. Submit a plan drawing indicating the results of the inspection, including dimensioned areas of existing deteriorated concrete. Do not proceed with concrete removal until the submitted drawing is reviewed by the Engineer.
- D. If required by Engineer, provide access to the surfaces for Engineer to review any areas of deteriorated concrete identified by the Contractor.
- E. The Engineer shall notify the Contractor of any variation in type of repair methods and quantities of repairs from those indicated herein within 14 days of receiving the inspection results.

### 3.02 GENERAL

- A. The locations, details, and limits of the repairs are shown on the Drawings. All work shall comply with the requirements of this Section and as indicated on the Drawings.
- B. Examine areas and conditions under which repair work is to be installed, and notify Engineer in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Engineer.
- C. All commercial products shall be stored, mixed, applied and cured in strict compliance with the manufacturer's instructions.
- D. Where concrete is repaired in the vicinity of an expansion joint or control joint, preserve the isolation between components on either side of the joint.
- E. When drilling holes for dowels/bolts, stop drilling if reinforcing is encountered. As approved by the Engineer, relocate the hole to avoid reinforcing. Do not cut reinforcing without prior approval by the Engineer. Where possible, identify reinforcing locations prior to drilling using "rebar locators" so that drill hole locations may be adjusted to avoid reinforcing interference.

- F. Concrete designated to be removed to specific limits as shown on the Drawings or directed by the Engineer, shall be done by saw cutting (1-in deep as shown on the Drawings) at limits of removal followed by line drilling and chipping or sandblasting, or airblasting, as appropriate in the areas where deteriorated, damaged unsound concrete is to be taken out. Remove concrete such that surrounding concrete and existing reinforcing to be left in place and existing in place equipment are not damaged.
- G. All saw-cut edges for repair areas shall be vertically and horizontally straight. Intersecting cuts shall be perpendicular to each other.
- H. Saw cutting shall stop if rebar is encountered. Rebar shall not be cut without prior approval by the Engineer. Where possible, Contractor shall identify rebar locations within one foot of saw cut locations in any direction prior to saw cutting using "rebar locators."
- I. Clean concrete surfaces of all efflorescence, deteriorated concrete, dirt, laitance, existing repair materials (liners, adhesives, epoxies, etc.), and foreign matter by sandblasting, airblasting, scarifying or other mechanical means to sound original concrete.
- J. Care shall be taken to fully consolidate the repair material, completely filling all portions of the area to be filled.
- K. The finished repair surfaces shall be brought into alignment with the adjacent existing surfaces to provide a uniform, even surface. The repair surfaces shall match adjacent existing surfaces in texture and shall receive any coatings or surface treatments that had been provided for the existing surface.
- L. The Engineer may from time to time direct the Contractor to make additional repairs to existing concrete. These repairs shall be made as specified or by such other methods as may be appropriate.
- M. Repair or replace concrete shown or specified to be left in place which is damaged as a result of the work by approved means at no additional cost to the Owner.

### 3.03 FLOOR TOPPING INSTALLATION

- A. Surface Preparation:
  - 1. Saw cut perimeter of work areas and prepare existing slab surface to receive new topping as shown on the plans along the repair and overlay boundaries.
  - 2. Prepare all remaining surfaces to be repaired or overlaid using shot-blasting, scabblers, hydrodemolition, or concrete milling machines to remove all deleterious material and create a surface profile of 1/4" amplitude. Acid-etched surface preparations are not acceptable. Surface preparation shall result in a surface profile acceptable to the bonding agent manufacturer, both in terms of amplitude and removal of surface grease, oils, or other materials that may adversely affect the bond of the topping. Surface preparation must be meet a minimum of ICRI CSP 7-9.
  - 3. Clean scarified surface thoroughly until all laitance, dirt and similar deleterious materials have been removed.

4. Survey the surface of the existing slab. Map and report to the Owner any existing cracks that might telegraph through the new concrete repair or topping. The Owner shall evaluate any such cracks for the need for additional repair prior to repair or topping placement.
5. Apply bonding agent to the prepared surface to receive repair or topping in accordance with the manufacturer's recommended instructions and sand saturate the wet epoxy until refusal (recommended 2040 sand gradation or 16/20 mesh dried silica sand). Allow the epoxy to cure and remove all looses and prior to placement of the topping material by sweeping and or vacuuming the area. Strict adherence to the working life of the bonding agent will be enforced. Manufacturer's representative shall be present during bonding agent application and shall approve surface preparation, moisture levels, and application procedures.
6. Install triangular shaped wear indicators every 1000 ft<sup>2</sup> to show amount of floor wear over time.

B. Installation:

1. Thorough mixing of the topping material shall be in accordance with the manufacturer's recommendations.
2. Slab preparation, moisture content, topping termination, bonding agents, topping placement, finishing and curing shall be in accordance with material manufacturer's written instructions.
3. Pre-formulated topping manufacturer shall provide continual construction inspection during slab preparation and topping application. This inspection may be performed by the Contractor, as long as the Contractor is certified in writing by the manufacturer to do so prior to installation.
4. The topping shall be continuously field tested and the results shall be approved by the manufacturer. Documentation of the tests shall be recorded and submitted to the owner, manufacturer, and contractor.
5. Bonding agent must be epoxy-based and substrate condition must be approved by pre-formulated topping manufacturer's representative prior to topping installation.
6. Any deviations from the pre-formulated topping manufacturer's installation instructions must be approved by the manufacturer in writing prior to execution.

C. Application:

1. Two-Course Bonded
  - a. All slabs in the topping area shall receive a minimum of 1 ½" thick metallic or natural aggregate topping over a properly prepared based slab. Prior to the topping placement, the surface shall be coated with "EucoFloor Epoxy Primer" epoxy adhesive, sand saturated and fully cured. The bond coat shall be mixed, placed, compacted and finished in strict accordance with the instructions of the manufacturer.
  - b. The base slab preparation shall be approved by the pre-formulated topping manufacturer's representative prior to the application of the bonding compound or epoxy adhesive.

D. Placing and Finishing:

1. Immediately after thorough mixing is completed, discharge topping material for immediate placing and screeding. Use "EucoBar" to keep moisture in topping material.
2. The minimum thickness of "EucoFloor 404" shall be 1-½ inches.

E. Protecting and Curing:

1. General: Protect freshly placed pre-formulated topping from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
2. Protect pre-formulated toppings from physical damage due to continuing existing facility operations.

F. Cure Time and Compressive Strength to Begin Operations:

1. "EucoFloor 404" mixture shall cure for a minimum of 48 hours after final placement prior to engaging normal facility operations.
2. The "EucoFloor 404" mixture shall achieve the lesser of 5000 psi or 35% of the 28-day compressive strength prior to engaging normal facility operations.

3.04 SPALLED/DETERIORATED CONCRETE REPAIR (REPAIRS TYPE "C", "E", AND "F")

- A. The only material acceptable for surface repair of spalled or deteriorated concrete is polymer-modified cementitious repair mortar as specified herein.
- B. Saw cut perimeter of deteriorated concrete to form a rectangle with straight edges to a depth as shown on the Drawings. Remove all fractured, loose, broken, softened, and deteriorated concrete by abrasive blasting, chipping or other appropriate means down to sound concrete. Chip concrete substrate to obtain a surface profile with a new fractured aggregate surface.
- C. Remove all dirt, oil, grease, and other bond inhibiting materials from the surface by dry mechanical means such as sand blasting, chipping, or wire brushing. Thoroughly clean surface of loose or weakened material and dust by dry mechanical means such as air blast. Additional surface preparation shall follow the recommendations of the repair mortar manufacturer.
- D. Do not damage reinforcing steel that is to be incorporated into new concrete. Where reinforcing steel with active corrosion is encountered, the procedure shall be as follows:
  1. Use dry mechanical means to remove all loose material, contaminants and rust from exposed reinforcing steel.
  2. When more than half of the diameter of a reinforcing bar is exposed, chip out behind the reinforcing steel, 1-in minimum.
  3. The distance chipped behind a reinforcing bar shall be equal to or exceed the minimum placement depth of the material to be used, 1-in minimum.

4. If existing reinforcing steel has lost more than 15 percent of its original cross sectional area, splice in new reinforcing as shown on the Drawings.
- E. Cracks encountered in the substrate in the area of the spalled/deteriorated concrete repair shall be repaired as directed by the Engineer.
- F. Repair Mortar Placement:
1. Follow the procedures recommended by the manufacturer for the mixing and placement of the repair mortar.
  2. After the initial mixing of the repair mortar, additional water shall not be added to change the consistency should the mix begin to stiffen.
  3. Substrate shall be saturated surface dry (SSD) with no standing water during application.
  4. Apply scrub coat to substrate, filling all pores and voids.
  5. While scrub coat is still plastic, apply the polymer-modified repair mortar. The repair mortar shall be placed to an even, uniform plane to restore the member to its original surface.
  6. For applications greater than 1-in in depth, apply repair mortar in lifts. Score the exposed surface of each lift to produce a roughened surface before applying the next lift. Allow the lift to reach final set before proceeding with the next lift.
- G. Finishing:
1. The repair mortar shall receive a smooth, steel trowel finish, unless otherwise noted.
  2. When completed, there shall be no sharp edges. All exterior corners, such as at penetrations, shall be made with a one-inch radius. All interior corners shall be square.
- H. Curing: Curing shall be performed as recommended by the repair mortar manufacturer except that the cure period shall be at least 24 hours and shall be by means of a continuous fog spray or moist cure with wet burlap.
- I. Remove fractured, loose, deteriorated and unsound concrete by bush hammering, chipping, high pressure water blast or other appropriate dry mechanical means. Remove all dirt, oil, grease and all other bond inhibiting materials from concrete surface. Existing anchor bolts, exposed reinforcing steel, and reinforcing to be incorporated into repair mortar, shall be treated as specified below. Construct leakproof forms as required. Forms shall be lined or coated with release agents recommended by the manufacturer of the repair mortar. Forms shall be of adequate strength, securely anchored in place and shored to resist the forces imposed by the repair mortar and its placement. Saturate existing concrete surfaces with water, with no standing water during application. Prime concrete surface with a scrub coat of repair mortar. Restore area to original limits or as shown using repair mortar before scrub coat dries. Extend repair mortar with 3/8 inch aggregate only as recommended by manufacturer of repair mortar. Comply with manufacturer's recommendations for concrete removal, surface preparation, mixing, application, lift thickness, finishing, moist curing and form removal.



### 3.05 FIELD QUALITY CONTROL

#### A. Compressive Strength Field Testing:

1. Sets of field control cylinder specimens shall be taken by the Contractor during the progress of the work, in compliance with ASTM C31. The number of sets of concrete test cylinders taken each day will not be less than one set per day, nor less than one set for each 5 cu yds of concrete. Specimens will be formed in 6-in diameter by 12-in long non-absorbent cylindrical molds.
  - a. A "set" of test cylinders shall consist of four cylinders: one to be tested at seven days and two to be tested and their strengths averaged at 28 days. The fourth may be used for a special test at 3 days or to verify strength after 28 days if 28 day test results are low.
  - b. When the average 28 day compressive strength of the cylinders in any set falls below the compressive strength values published by the form-and-pump repair mortar manufacturer, change the amount of water used or temperature conditions to achieve the required strengths at no additional cost to the Owner. The amount of water must stay within the limits required by the form-and-pump repair mortar manufacturer.
2. Cooperate in the making of tests by allowing free access to the work for the selection of samples. Provide an insulated closed curing box for the specimens and protect the specimens against injury or loss through construction operations. Furnish material and labor required for the purpose of taking concrete cylinder samples. All shipping of specimens will be paid for by the Contractor.

#### B. Bond Strength Field Testing:

1. Perform three pull-off tests per test site at a frequency of one test site every 400 sq ft of concrete repairs.
2. Conduct bond strength testing of the in-place concrete repairs to the substrate in accordance with ASTM C1583. Allow repairs to cure for a minimum of 7 days before testing for bond strength.
3. Average bond strength of repair material to the existing substrate shall be a minimum of 100 psi, with no single bond test falling below 75 psi.
4. Core samples made during bond strength tests should be visually inspected to determine inclination of the interface relative to the core axis. If the angle of the interface is more than a few degrees from a right angle, the bond strength test results may not be accurate.

- C. At completion of all repairs, the Contractor, Engineer, and installers of the materials used on the repairs shall inspect the work. Cracks or voids in the concrete repairs shall be repaired in accordance with the manufacturer's instructions at no additional cost to the Owner. Repairs not in conformance with the Drawings or Specifications shall be repaired in accordance with the manufacturer's instructions at no additional cost to the Owner. At the completion of these repairs, the Contractor, Engineer, and installers of the materials shall inspect the repaired problem areas.

END OF SECTION

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SECTION 05500  
MISCELLANEOUS METALS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install all miscellaneous metal complete as shown on the Drawings and as specified herein.

1.02 SUBMITTALS

- A. Submit, in accordance with Section 01300, shop drawings and product data showing materials of construction and details of installation for:
  - 1. Shop drawings, showing sizes of members, method of assembly, anchorage and connection to other members.

1.03 REFERENCE STANDARDS

- A. ASTM International (ASTM):
  - 1. ASTM A36 - Standard Specification for Carbon Structural Steel.
  - 2. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
  - 3. ASTM A108 - Standard Specification for Steel Bars, Carbon, Cold Finished, Standard Quality.
  - 4. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - 5. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - 6. ASTM A276 - Standard Specification for Stainless Steel Bars and Shapes.
  - 7. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60,000 Psi Tensile Strength.
  - 8. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
  - 9. ASTM A570 - Standard Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality.
  - 10. ASTM A1008 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.

11. ASTM F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
  12. ASTM F594 - Standard Specification for Stainless Steel Nuts.
  13. ASTM F1554 -Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
  14. ASTM F2329 - Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon Screws, Washers, Nuts, and Special Threaded Fasteners.
- B. American Institute of Steel Construction (AISC):
1. Specification for Structural Steel Buildings – Allowable Stress Design and Plastic Design.
- C. American Welding Society (AWS):
1. AWS D1.1 - Structural Welding Code - Steel.
  2. AWS D1.2 - Structural Welding Code - Aluminum.
  3. AWS D1.6 - Structural Welding Code - Stainless Steel
- D. Federal Specifications:
1. FS-FF-B-575C - Bolts, Hexagonal and Square.
- E. Occupational Safety and Health Administration (OSHA).
- F. International Code Council (ICC):
1. International Building Code (IBC).
- G. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

#### 1.04 QUALITY ASSURANCE

- A. The work of this Section shall be completely coordinated with the work of other Sections. Verify, at the site, both the dimensions and work of other trades adjoining items of work in this Section before fabrication and installation of items herein specified.
- B. Furnish to the pertinent trades all items included under this Section that are to be built into the work of other Sections.
- C. All welding shall be performed by qualified welders and shall conform to the applicable AWS welding code. Welding of steel shall conform to AWS D1.1 and welding of aluminum shall conform to AWS D1.2 and welding of stainless steel shall conform to AWS D1.6.

## 1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver items to be incorporated into the work of other trades in sufficient time to be checked prior to installation.
- B. Store materials on skids and not on the ground and block up so that they will not become bent or otherwise damaged. Handle materials with cranes or derricks. Do not dump material off cars or trucks nor handle in any other way that will cause damage.
- C. Repair items that have become damaged or corroded to the satisfaction of the Engineer prior to incorporating them into the work.

## 1.06 PROJECT/SITE REQUIREMENTS

- A. Field measurements shall be taken at the site, prior to fabrication of items, to verify or supplement indicated dimensions and to ensure proper fitting of all items.

## PART 2 PRODUCTS

### 2.01 GENERAL

- A. The use of manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.
- B. Like items of materials shall be the end products of one manufacturer in order to provide standardization for appearance, maintenance and manufacturer's service.

### 2.02 MATERIALS

- A. Unless otherwise noted, materials for miscellaneous metals shall conform to the following standards:
  - 1. Structural Steel: Wide flange shapes: ASTM A992.
  - 2. Other shapes; plates; rods and bars: ASTM A36.
  - 3. Structural Steel Tubing: ASTM A500, Grade B.
  - 4. Welded and Seamless Steel Pipe: ASTM A501 or ASTM A53, Type E or S, Grade B Schedule 40. Use standard malleable iron fittings, galvanized for exterior work.
  - 5. Steel Sheets: ASTM A1008.
  - 6. Stainless Steel Plates, Sheets, and Washers:
    - a. Exterior, Submerged or Industrial Use: ASTM A240, Type 316 (Type 316L for welded components).
    - b. Interior and Architectural Use: ASTM A240, Type 304.

7. Stainless Steel Shapes and Bars:
  - a. Exterior, Submerged or Industrial Use: ASTM A276, Type 316 (Type 316L for welded components).
  - b. Interior and Architectural Use: ASTM A276, Type 304.
8. Stainless Steel Bolts: ASTM F593, Type 316.
9. Stainless Steel Nuts: ASTM F594, Type 316.
10. Carbon Steel Bolts and Studs: ASTM A307, Grade A (hot dip galvanized nuts and washers where noted).
11. High Strength Steel Bolts, Nuts and washers: ASTM A325 (mechanically galvanized per ASTM B695, Class 50, where noted)
  - a. Elevated Temperature Exposure: Type I.
  - b. General Application: Type I or Type II.
12. Galvanizing: ASTM A123, Zn w/0.05 percent minimum Ni.
13. Galvanizing, hardware: ASTM A153, Zn w/0.05 percent minimum Ni.
14. Galvanizing, anchor bolts: ASTM F2329, Zn w/0.05 percent minimum Ni.
15. Welding electrodes, steel: AWS A5.1 E70xx.

## 2.03 ANCHORS, BOLTS AND FASTENING DEVICES

- A. Unless otherwise noted, anchor bolts shall be ASTM F1554, Grade 36. Provide standard headed bolts with heavy hex nuts and Grade A washers. Where galvanized anchor bolts are shown or specified, provide standard headed bolts with heavy hex nuts and Grade A washers, all galvanized in accordance with ASTM F2329.
- B. Unless otherwise noted, bolts for the connection of carbon steel or iron shall be steel machine bolts; bolts for the connection of galvanized steel or iron shall be galvanized steel or stainless steel machine bolts; and bolts for the connection of aluminum or stainless steel shall be stainless steel machine bolts.
- C. Unless otherwise noted, expansion anchors shall be zinc plated carbon steel wedge type anchors complete with nuts and washers. Type 316 stainless steel wedge type anchors shall be used where they will be submerged or exposed to the weather or where stainless steel wedge type anchors are shown or specified. When the length or embedment of the bolt is not noted on the Drawings, provide length sufficient to place the wedge and expansion cone portion of the bolt at least 1-in behind the concrete reinforcing steel. Expansion anchors shall be Hilti, Kwik-Bolt TZ; Simpson Strong-Tie Strong-Bolt 2 Wedge Anchor; Powers Power-Stud+ or equal.
- D. Adhesive anchor system, for fastening to solid concrete substrate, shall be a system manufactured for the installation of post installed studs including anchoring hardware and chemical dispenser. Injection adhesive shall be a two-component epoxy system including a

hardener and a resin, furnished in pre-measured side-by-side cartridges which keep the two components separate. Side-by-side cartridges shall be designed to accept a static mixing nozzle which thoroughly blends the two components and allows injection directly into the drilled hole. Provide zinc plated carbon steel or Type 316 stainless steel stud assemblies as indicated on the Drawings consisting of an all-thread anchor rod with nut and washer. Adhesive anchor system shall be Hilti RE 200; Simpson Strong Tie SET-XP; ITW Ramset Red Head Epcon G5; or equal. Unless otherwise noted, anchorage designs shown on the Drawings are based on Hilti RE 500 SD.

- E. Machine bolts and nuts shall conform to Federal Specification FF-B-575C. Bolts and nuts shall be hexagon type. Bolts, nuts, screws, washers and related appurtenances shall be Type 316 stainless steel.

#### 2.04 MISCELLANEOUS STEEL

- A. All miscellaneous metal work shall be formed true to detail, with clean, straight, sharply defined profiles and smooth surfaces of uniform color and texture and free from defects impairing strength or durability. Holes shall be drilled or punched. Edges shall be smooth and without burrs. Fabricate supplementary pieces necessary to complete each item though such pieces are not definitely shown or specified.
- B. Connections and accessories shall be of sufficient strength to safely withstand the stresses and strains to which they will be subjected. Exposed joints shall be close fitting and jointed where least conspicuous. Threaded connections shall have the threads concealed where practical. Welded connections shall have continuous welds or intermittent welds as specified or shown. The face of welds shall be dressed flush and smooth. Provide holes for temporary field connections and for attachment of the work of other trades.
- C. Miscellaneous steel items shall include any miscellaneous steel called for on the Drawings and not otherwise specified.
- D. Steel pipe pieces for sleeves, lifting attachments and other functions shall be Schedule 40 pipe unless otherwise shown on the Drawings. Wall and floor sleeves, of steel pipe, shall have welded circumferential steel waterstops at mid-length.
- E. Galvanizing, where required, shall be the hot-dip zinc process after fabrication. Coating shall be not less than 2 oz/sq ft of surface.

#### 2.05 MISCELLANEOUS STAINLESS STEEL

- A. All miscellaneous metal work shall be formed true to detail, with clean, straight, sharply defined profiles and smooth surfaces of uniform color and texture and free from defects impairing strength or durability. Holes shall be drilled or punched. Edges shall be smooth and without burrs. Fabricate supplementary pieces necessary to complete each item though such pieces are not definitely shown or specified.
- B. Connections and accessories shall be of sufficient strength to safely withstand the stresses and strains to which they will be subjected. Exposed joints shall be close fitting and jointed where least conspicuous. Threaded connections shall have the threads concealed where practical. Welded connections shall have continuous welds or intermittent welds as specified or shown.

The face of welds shall be dressed flush and smooth. Provide holes for temporary field connections and for attachment of the work of other trades.

- C. Miscellaneous stainless steel items shall include any miscellaneous stainless steel called for on the Drawings and not otherwise specified.

### PART 3 EXECUTION

#### 3.01 INSTALLATION

- A. Zinc coating which has been burned by welding, abraded, or otherwise damaged shall be cleaned and repaired after installation. The damage area shall be thoroughly cleaned by wire brushing and all traces of welding flux and loose or cracked zinc coating removed prior to painting. The cleaned area shall be painted with two coats of zinc oxide-zinc dust paint conforming to the requirements of Military Specifications MIL-P-15145. The paint shall be properly compounded with a suitable vehicle in the ratio of one part zinc oxide to four parts zinc dust by weight.
- B. Specialty products shall be installed in accordance with the manufacturer's recommendations.
- C. Expansion bolts shall be checked for tightness a minimum of 24 hours after initial installation.
- D. Install adhesive anchor system in strict compliance with the manufacturer's recommendations, including drill bit diameter, surface preparation, temperature, moisture conditions, injection and installation of bolts. Use oil free compressed air to blast out loose particles and dust from the drilled holes. Bolts must be clean and free of dirt, oil, grease, ice or other material which would reduce bond.
- E. All steel surfaces that come into contact with exposed concrete or masonry shall receive a protective coating of an approved heavy bitumastic troweling mastic applied in accordance with the manufacturer's instructions prior to installation.
- F. Where aluminum contacts a dissimilar metal, apply a heavy brush coat of zinc-chromate primer followed by two coats of aluminum metal and masonry paint to the dissimilar metal.
- G. Where aluminum contacts masonry or concrete, apply a heavy coat of approved alkali resistant paint to the masonry or concrete.
- H. Where aluminum contacts wood, apply two coats of aluminum metal and masonry paint to the wood.
- I. Between aluminum gratings, aluminum stair treads, or aluminum handrail brackets and steel supports, insert 1/4-in thick neoprene isolator pads, 85 plus or minus 5 Shore A durometer, sized for full width and length of bracket or support.

END OF SECTION



# **Construction Plans**

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SANTA FE SOLID WASTE MANAGEMENT AGENCY  
**BUCKMAN ROAD RECYCLING & TRANSFER STATION**

# TIPPING FLOOR REHABILITATION AND GENERAL STRUCTURAL REPAIRS

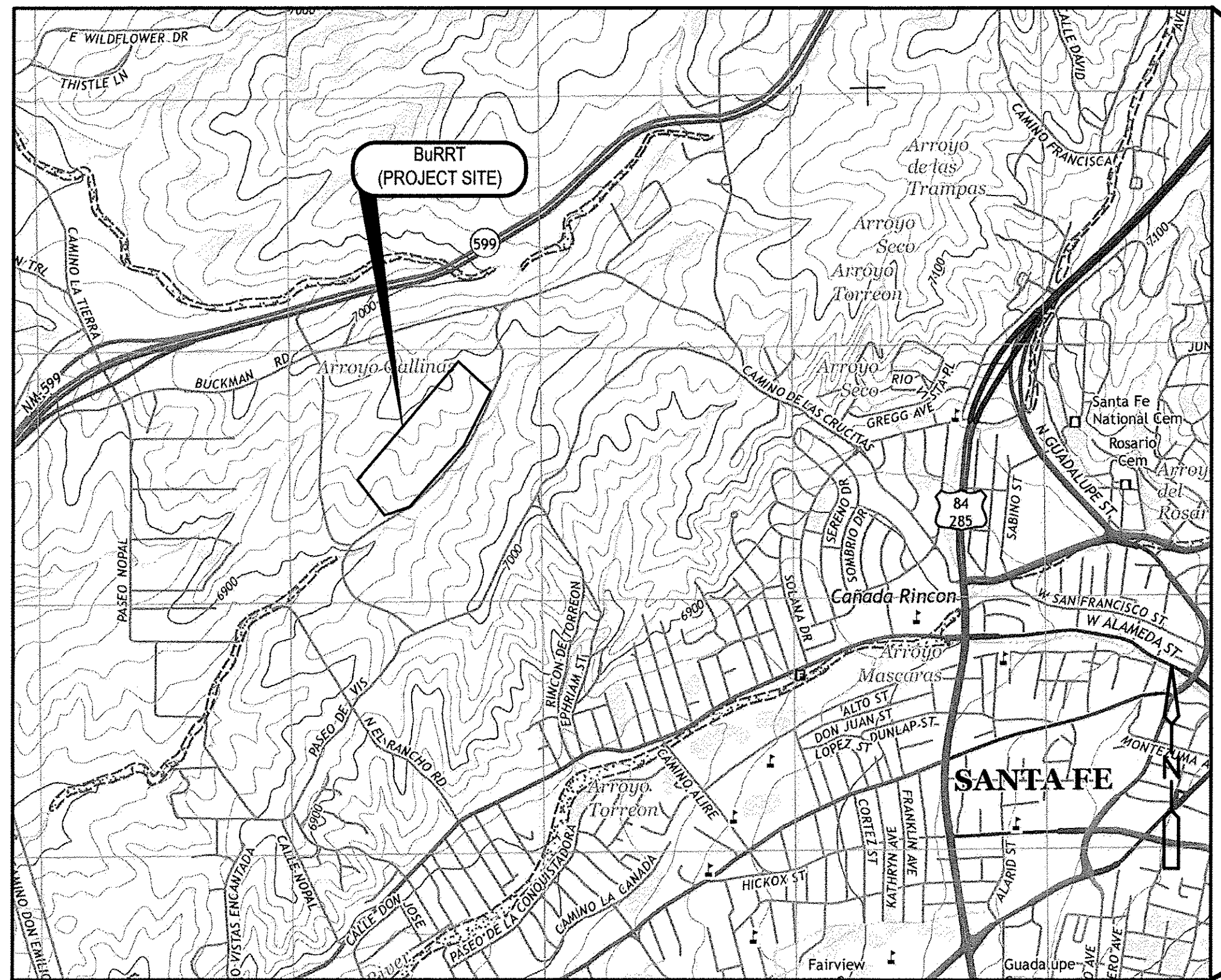
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 APRIL 2018

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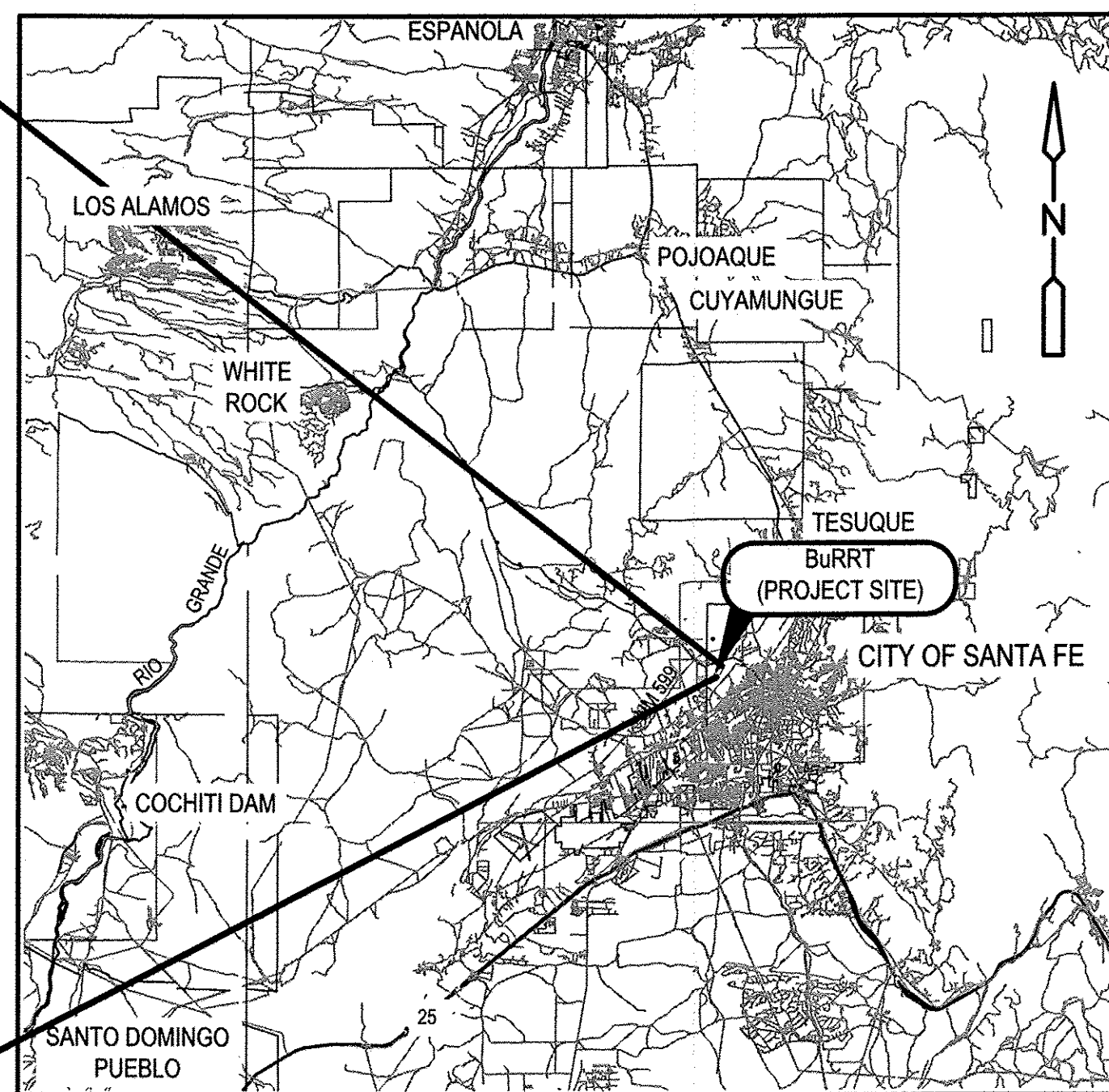
EXECUTIVE DIRECTOR  
 RANDALL KIPPENBROCK, P.E.

BuRRT SITE MANAGER  
 RANDY WATKINS

JOINT POWERS BOARD MEMBERS  
 COUNCILOR MIKE HARRIS – CHAIR  
 COMMISSIONER ANNA HAMILTON – VICE CHAIR  
 COMMISSIONER ANNA HANSEN  
 COMMISSIONER ED MORENO  
 COUNCILOR JOSEPH M. MAESTAS  
 COUNCILOR RENE VILLAREAL



**VICINITY MAP**  
 NO SCALE



**VICINITY MAP**  
 NO SCALE

FACILITY ADDRESS:  
 2600 BUCKMAN ROAD  
 SANTA FE, NM 87507



**ALBUQUERQUE, NEW MEXICO**

*Water*

*Environment*

*Transportation*

*Energy*

*Facilities*



**ISSUED FOR CONSTRUCTION**

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**DESIGN CRITERIA:**

CODES:  
 IBC-2015 (INTERNATIONAL BUILDING CODE 2015) WITH NEW MEXICO COMMERCIAL BUILDING CODE AMENDMENTS  
 ACI 318-14 (BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE)  
 AISC 360 STEEL CONSTRUCTION MANUAL, 14TH EDITION

**DESIGN LOADS:**

LIVE LOADS:  
 STAIRS AND PLATFORMS 100 PSF

**BUILDING RISK CATEGORY III**

**WIND DESIGN DATA:**

BASIC WIND SPEED  $V_{ULT} = 120$  MPH (3 SECOND GUST)  
 EXPOSURE CATEGORY  $V_{ASD} = 93$  MPH  
 C

**SEISMIC DESIGN DATA:**

SOIL SITE CLASS D  
 MAPPED SPECTRAL RESPONSE ACCELERATIONS  
 SHORT PERIOD  $S_s = 0.454$   
 ONE SECOND PERIOD  $S_1 = 0.136$   
 SPECTRAL RESPONSE COEFFICIENTS  
 SHORT PERIOD  $S_{ds} = 0.435$   
 ONE SECOND PERIOD  $S_{d1} = 0.204$   
 SEISMIC DESIGN CATEGORY D  
 SEISMIC IMPORTANCE FACTOR  $I_e = 1.25$

**SNOW:**

GROUND SNOW LOAD  $P_g = 15$  PSF

**GENERAL CONDITIONS:**

ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE OTHER PROJECT DRAWINGS AND SPECIFICATIONS.

SEE MECHANICAL DRAWINGS FOR ANCHORS, PIPE SLEEVES, CONDUITS OR OTHER ITEMS TO BE EMBEDDED IN OR PASS THROUGH THE CONCRETE. IN GENERAL, EMBEDMENTS AND PENETRATIONS LESS THAN 12 INCHES IN DIAMETER ARE NOT SHOWN ON STRUCTURAL DRAWINGS.

STANDARD DETAILS SHALL BE USED AT ALL APPLICABLE LOCATIONS, UNLESS NOTED OTHERWISE ON DRAWINGS.

FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION.

WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED SIZES.

**CONSTRUCTION NOTES:**

TEMPORARY SHORING SHALL NOT BE REMOVED UNTIL THE FULL STRENGTH ( $f'c$ ) AND/OR ( $f'm$ ) IS ACHIEVED.

PRIOR TO INSTALLATION OF EQUIPMENT, COORDINATE AND CONFIRM THE ANCHORAGE REQUIREMENTS WITH THE MANUFACTURER. THE ANCHORAGE SYSTEM SHALL NOT DAMAGE THE CONCRETE.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. THE PROJECT MANAGER SHALL BE NOTIFIED OF ANY DISCREPANCY BETWEEN DRAWINGS IMMEDIATELY UPON DISCOVERY.

**CAST-IN-PLACE CONCRETE:**

REINFORCED CONCRETE SHALL CONFORM TO ACI 318 AND ACI 301.

REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE.

ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4" CHAMFER, UNLESS OTHERWISE NOTED.

WALL REINFORCEMENT AT CORNERS OR JUNCTIONS OF WALLS SHALL BE CONTINUOUS, LAPPED, OR TERMINATED IN AN ACI STANDARD 90 DEGREE HOOK DETAIL.

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS SHALL BE DOWELED. DOWELS SHALL BE THE SAME SIZE AND SPACING AS THE REINFORCEMENT WHICH IS SPLICED UNLESS OTHERWISE NOTED.

SLABS, BEAMS, AND COLUMN REINFORCING BARS SHALL HAVE A MINIMUM EXTENSION OR ANCHORAGE INTO SUPPORTS IN ACCORDANCE WITH ACI 318.

STIRRUP SUPPORT BARS SHALL BE PROVIDED AS REQUIRED TO SECURE TOP BARS AGAINST DISPLACEMENT.

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINFORCING BARS SHALL BE AS FOLLOWS:

- SLABS AND JOISTS:
  - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS.....2"
  - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR LOCATED OVER FLUIDS.....2"
- BEAMS AND COLUMNS:
  - FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
    - STIRRUPS, SPIRALS AND TIES.....2"
    - PRINCIPAL REINFORCEMENT.....2 1/2"
  - FORMED CONCRETE SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR BEAMS LOCATED OVER FLUIDS:
    - STIRRUPS AND TIES.....2"
    - PRINCIPAL REINFORCEMENT.....2 1/2"
- WALLS:
  - FORMED CONCRETE SURFACES FOR DRY CONDITIONS.....2"
  - FORMED CONCRETE SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH SOIL OR FLUIDS.....2"
- FOOTINGS AND SLABS ON GRADE:
  - FORMED CONCRETE SURFACES.....2"
  - AT UNFORMED CONCRETE SURFACES CAST AGAINST THE SOIL OR CONCRETE WORK MATS.....3"

CONCRETE COVER IS THE LEAST DISTANCE BETWEEN EMBEDDED REINFORCEMENT AND THE SURFACE OF THE CONCRETE. THE SURFACE OF THE CONCRETE IS THE BOTTOM OF THE RUSTICATION OR REVEAL STRIPS WHEN USED.

CONCRETE CURING SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO BACKFILL SHALL BE PLACED AGAINST WALLS UNTIL CONCRETE HAS REACHED THE SPECIFIED STRENGTH AND ALL CONNECTING SLABS AND BEAMS PROVIDING SUPPORT TO THE WALLS HAVE BEEN CAST AND HAVE REACHED THE SPECIFIED STRENGTH. BACKFILL MATERIALS AND TECHNIQUE SHALL FOLLOW THE GEOTECHNICAL REPORT RECOMMENDATIONS.

**MISCELLANEOUS METALS:**

FASTENERS FOR ALUMINUM CONSTRUCTION SHALL BE TYPE 316 STAINLESS STEEL, UNLESS OTHERWISE NOTED.

ALL ANGLE FRAMES ARE TO BE MITERED AND WELDED OR MOLDED AT CORNERS.

HOT-DIP GALVANIZING, WHERE REQUIRED, SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

GUARDRAIL AND LADDERS SHALL CONFORM TO OSHA REQUIREMENTS.

**CONCRETE ANCHORS:**

CONTRACTOR SHALL LOCATE EXISTING REINFORCING USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR ADHESIVE AND EXPANSION ANCHORS. ADJUST SPACING OF ANCHORS TO MISS REINFORCING, HOWEVER, TOTAL NUMBER OF ANCHORS PROVIDED MUST EQUAL NUMBER SHOWN ON DRAWINGS.

ADHESIVE FOR EMBEDDED DOWELS AND ANCHORS SHALL BE HILTI HIT-RE 500-SD (ICC EVALUATION REPORT 2322), OR APPROVED EQUAL. ALL DRILLED HOLES SHALL BE SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ, (ICC EVALUATION REPORT 1917). OR APPROVED EQUAL.

**TYPICAL STRUCTURAL MATERIALS:**

SEE PROJECT SPECIFICATIONS AND NOTES ON DRAWINGS FOR INDIVIDUAL STRUCTURES FOR DETAILED OR SPECIAL REQUIREMENTS.

**CONCRETE**

FILL, DUCT ENCASUREMENT, WHERE NOTED: CLASS A ( $f'c = 2500$  PSI)  
 MISCELLANEOUS CIVIL STRUCTURES: CLASS B ( $f'c = 3000$  PSI)  
 STRUCTURAL CONCRETE: CLASS C ( $f'c = 4000$  PSI)  
 REINFORCING STEEL: ASTM A615, GRADE 60 ( $F_y = 60,000$  PSI)  
 REINFORCING STEEL (WELDABLE): ASTM A706, GRADE 60 ( $F_y = 60,000$  PSI)  
 CEMENT: ASTM C150, TYPE II

**STRUCTURAL STEEL:**

SHAPES - W AND WT: ASTM A992 ( $F_y = 50$  KSI)  
 SHAPES - S, M, HP, C, MC, L, PLATE AND BAR: ASTM A36 ( $F_y = 36$  KSI)  
 HOLLOW STRUCTURAL SECTIONS:  
 ROUND: ASTM A500, GRADE B ( $F_y = 42$  KSI)  
 SQUARE AND RECTANGULAR: ASTM A500, GRADE B ( $F_y = 46$  KSI)  
 ANCHOR RODS: ASTM F1554, 3/4"Ø MINIMUM UNO ( $F_y = 36$  KSI)  
 WELDING ELECTRODES: E70XX ( $F_t = 70$  KSI)  
 ASSEMBLY BOLTS: HIGH STRENGTH ASTM A325-N GALVANIZE PER ASTM B695  
 ALL STRUCTURAL STEEL AND GRATING SHALL BE GALV., UNO.  
 STRUCTURAL ALUMINUM:  
 ALLOY: 6061-T6  
 SHAPES: ASTM B308  
 SHEET: ASTM B209  
 BOLTS, NUTS AND WASHERS: STAINLESS STEEL OR TYPE 2024-T4 ALUMINUM  
 WELDING FILLER MATERIAL: 5356

**STRUCTURAL LEGEND AND SYMBOLS**

	EARTH FILL		MASONRY		GRATING
	UNDISTURBED EARTH		STEEL		CHECKERED PLATE
	CONCRETE		ALUMINUM		GRANULAR FILL
	GROUT		CONCRETE TOPPING		

**ABBREVIATIONS:**

ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT MANUAL OF STEEL CONSTRUCTION BY AISC.

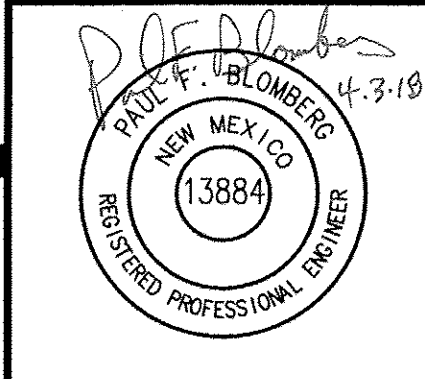
ABBREVIATIONS OF TECHNICAL SOCIETIES AND TRADE ASSOCIATIONS MAY BE FOUND IN THE SPECIFICATIONS.

WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 2.4.

**ABBREVIATIONS:**

&	AND	INT	INTERIOR
@	AT	INVT	INVERT
Ø	DIAMETER	JT	JOINT
#	NUMBER	KO	KNOCKOUT
AB	ANCHOR BOLT	L	ANGLE DESIGNATION OR LENGTH
ABV	ABOVE	LLH	LONG LEG HORIZONTAL
ADDL	ADDITIONAL	LLV	LONG LEG VERTICAL
AGG	AGGREGATE	LNTL	LINTEL
AL	ALUMINUM	LOC	LOCATION/LOCATED
ALT	ALTERNATE (ING)	LONG	LONGITUDINAL
APPROX	APPROXIMATE (LY)	LP	LOW POINT
ARCH	ARCHITECT (URAL) (URE)	LT	LEFT
B TO B	BACK TO BACK	LW	LIGHTWEIGHT
BEV	BEVEL (ED)	MAS	MASONRY
BLK	BLOCK	MATL	MATERIAL
BLKG	BLOCKING	MAX	MAXIMUM
BOT	BOTTOM	MB	MACHINE BOLTS
BRG	BEARING	MCJ	MASONRY CONTROL JOINT
C TO C	CENTER TO CENTER	MECH	MECHANICAL
CIRC	CIRCUMFERENTIAL	MFG	MANUFACTURED
CJ	CONSTRUCTION JOINT	MFR	MANUFACTURER
CL OR CL	CENTERLINE	MIN	MINIMUM
CLJ	CONTROL JOINT	MISC	MISCELLANEOUS
CLR	CLEAR	MO	MASONRY OPENING
CMU	CONCRETE MASONRY UNITS	NF	NEAR FACE
COL	COLUMN	NSG	NON-SHRINK GROUT
COMP	COMPRESSIBLE	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CONN	CONNECTION	OD	OUTSIDE DIAMETER
CONT	CONTINUOUS	OF	OUTSIDE FACE
CPLG	COUPLING	OPNG	OPENING
CRS	COURSE (S)	OPP	OPPOSITE
C/SK	COUNTERSINK	OPP HD	OPPOSITE HAND
CTG	CUTTING	OPT	OPTIONAL
CTR	CENTER (ED)	PCF	POUNDS PER CUBIC FOOT
d	PENNEY	PCJ	PARTIAL CONTRACTION JOINT
DET	DETAIL	PJF	PREMOLDED JOINT FILLER
DIA	DIAMETER	R OR PL	PLATE
DIAG	DIAGONAL	PLYWD	PLYWOOD
DIR	DIRECTION	PRCAST	PRECAST
DL	DEAD LOAD	PREFAB	PRE-FABRICATED
DO	DITTO	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
DWL	DOWEL	PVMT	PAVEMENT
EA	EACH	R	RISER (S)
EB	EXPANSION BOLT	RAD	RADIUS
EF	EACH FACE	RC	REINFORCED CONCRETE
EL	ELEVATION	REF	REFERENCE/REFER
ELEC	ELECTRIC (AL)	REINF	REINFORCE (D) (ING) (MENT)
EMBED	EMBEDMENT	REQD	REQUIRED
EQ	EQUAL (LY)	REV	REVISION
EQPT	EQUIPMENT	RLG	RAILING
ES	EACH SIDE	RO	ROUGH OPENING
EW	EACH WAY	RT	RIGHT
EXP JT	EXPANSION JOINT	SCHED	SCHEDULE
EXST	EXISTING	SCJ	SLAB CONTROL JOINT
EXT	EXTERIOR	SECT	SECTION
f'c	CONCRETE COMPRESSION STRESS	SFR	SYNTHETIC FIBER REINFORCED
f'm	MASONRY PRISM STRESS	SIM	SIMILAR
FAB	FABRICATE (OR) (ED)	SP	SPACE (S) (D)
FD	FLOOR DRAIN	SPEC	SPECIFICATION/SPECIFIED
FDN	FOUNDATION	SQ	SQUARE
FF	FACE	SST	STAINLESS STEEL
FHMS	FLATHEAD MACHINE SCREW	STD	STANDARD
FHWS	FLATHEAD WOOD SCREW	STIF	STIFFENER
FIN	FINISH (ED)	STIR	STIRRUP (S)
FL	FLOOR	SYM	SYMMETRICAL
FLG	FLANGE (ED)	T	TREAD (S)
FRP	FIBERGLASS REINFORCED PLASTIC	T&B	TOP AND BOTTOM
FT	FEET/FOOT	TF	TOP FACE
FTG	FOOTING/FITTING	THD	THREADED
GA	GAGE	THK	THICK (NESS)
GALV	GALVANIZED	TOC	TOP OF CONCRETE
GI	GALVANIZED IRON	TOS	TOP OF STEEL
GLB	GLASS BLOCK	TOW	TOP OF WALL
GR	GRADE	TRNSV	TRANSVERSE
GRTG	GRATING	TSL	TOP OF SLAB
HAS	HEADED ANCHOR STUD	TYP	TYPICAL
HD	HEAVY DUTY	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	VB	VAPOR BARRIER
HOR	HORIZONTAL	VERT	VERTICAL
HP	HIGH POINT	W	WIDE FLANGE
HR	HANDRAIL	W/O	WITHOUT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	WP	WORKING POINT
IAW	IN ACCORDANCE WITH	WS	WATERSTOP
ID	INSIDE DIAMETER	WWF	WELDED WIRE FABRIC
IF	INSIDE FACE		
IN	INCH		

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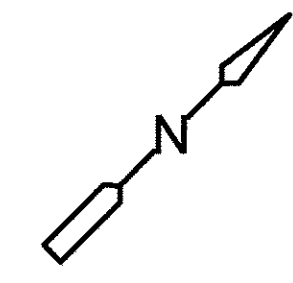
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 SHEET CHK'D BY: P. BLOMBERG  
 CROSS CHK'D BY: D. WILLIAMS  
 APPROVED BY: P. BLOMBERG  
 DATE: APRIL 2018

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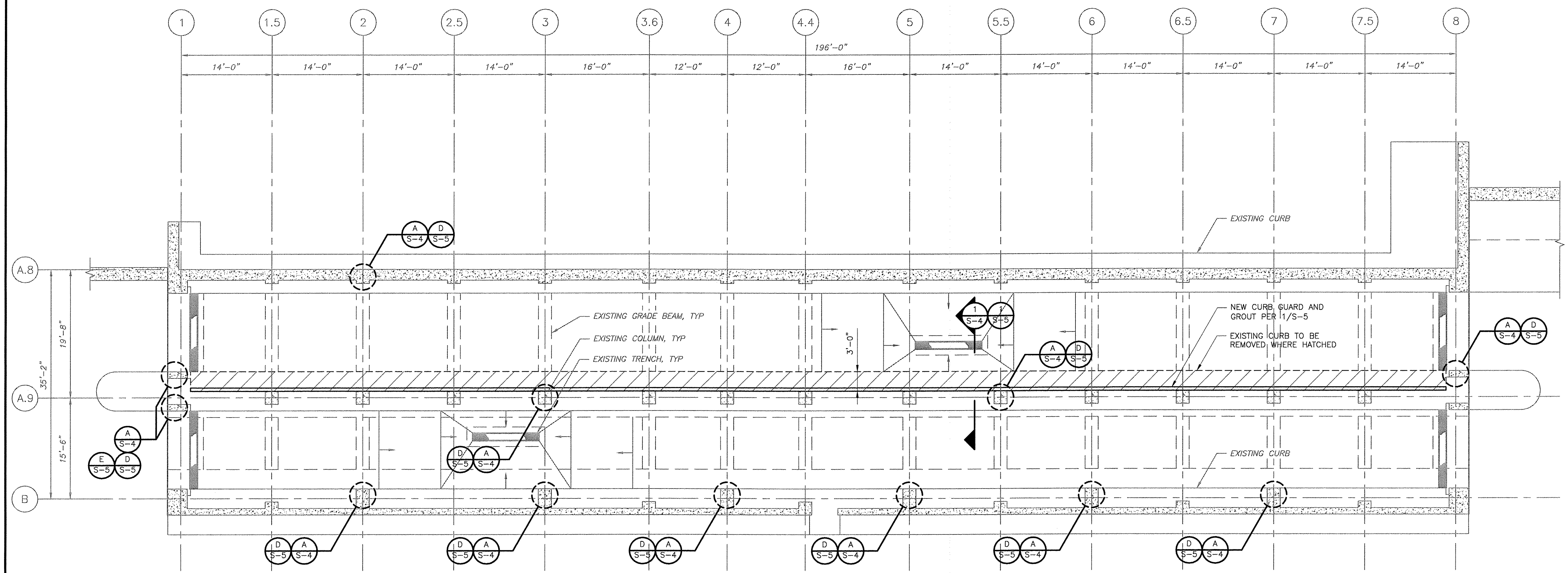
SANTA FE SOLID WASTE MANAGEMENT AGENCY  
**BUCKMAN ROAD RECYCLING & TRANSFER STATION**  
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 AND GENERAL STRUCTURAL REPAIRS

**STRUCTURAL GENERAL NOTES**

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**S-1**



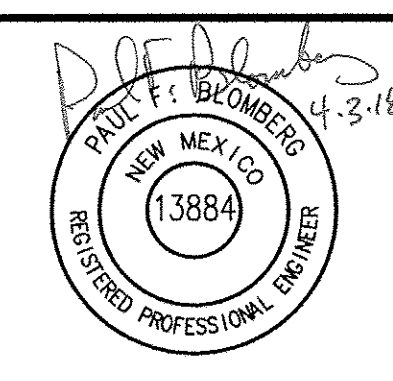
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TUNNEL STRUCTURAL REPAIR PLAN

PLAN  
 1/8" = 1'-0"

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STRUCTURAL REPAIR PLAN I

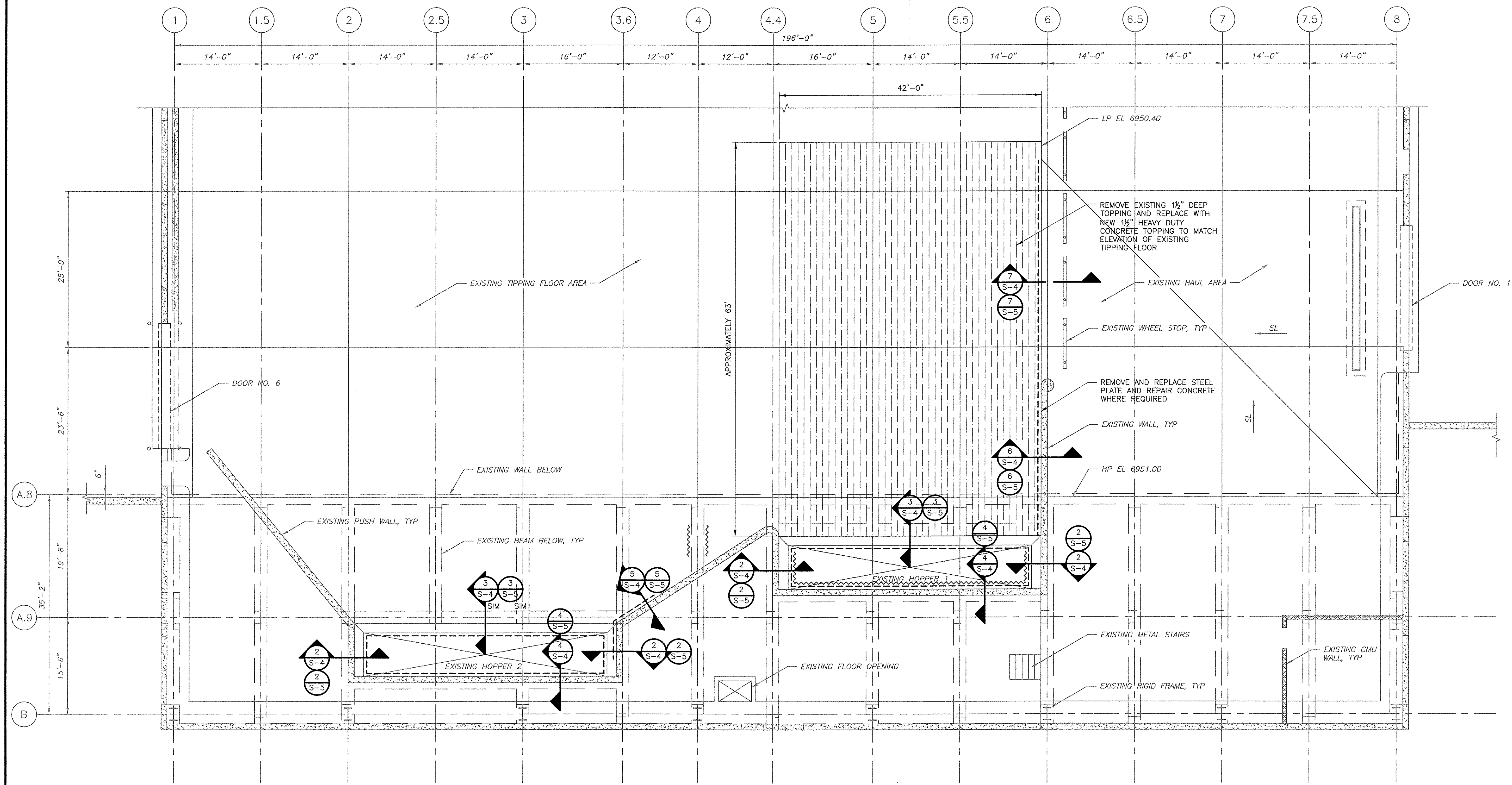
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NOTES:  
 1. VERIFY DIMENSIONS OF CONCRETE REPAIR DURING PRE-BID SITE WALK.



TIPPING FLOOR STRUCTURAL REPAIR PLAN

PLAN  
 1/8" = 1'-0"

- - - - - INDICATES LOCATION OF REMOVAL AND REPLACEMENT OF STEEL PLATE  
 ~~~~~ INDICATES CONCRETE BEAM LOWER CORNER REPAIR

| REV. NO. | DATE | DRWN | CHKD | REMARKS |
|----------|------|------|------|---------|
|          |      |      |      |         |
|          |      |      |      |         |

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 DRAWN BY: A. JOHNSON  
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 CROSS CHK'D BY: D. WILLIAMS  
 APPROVED BY: P. BLOMBERG  
 DATE: APRIL 2018

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 TIPPING FLOOR REHABILITATION  
 AND GENERAL STRUCTURAL REPAIRS

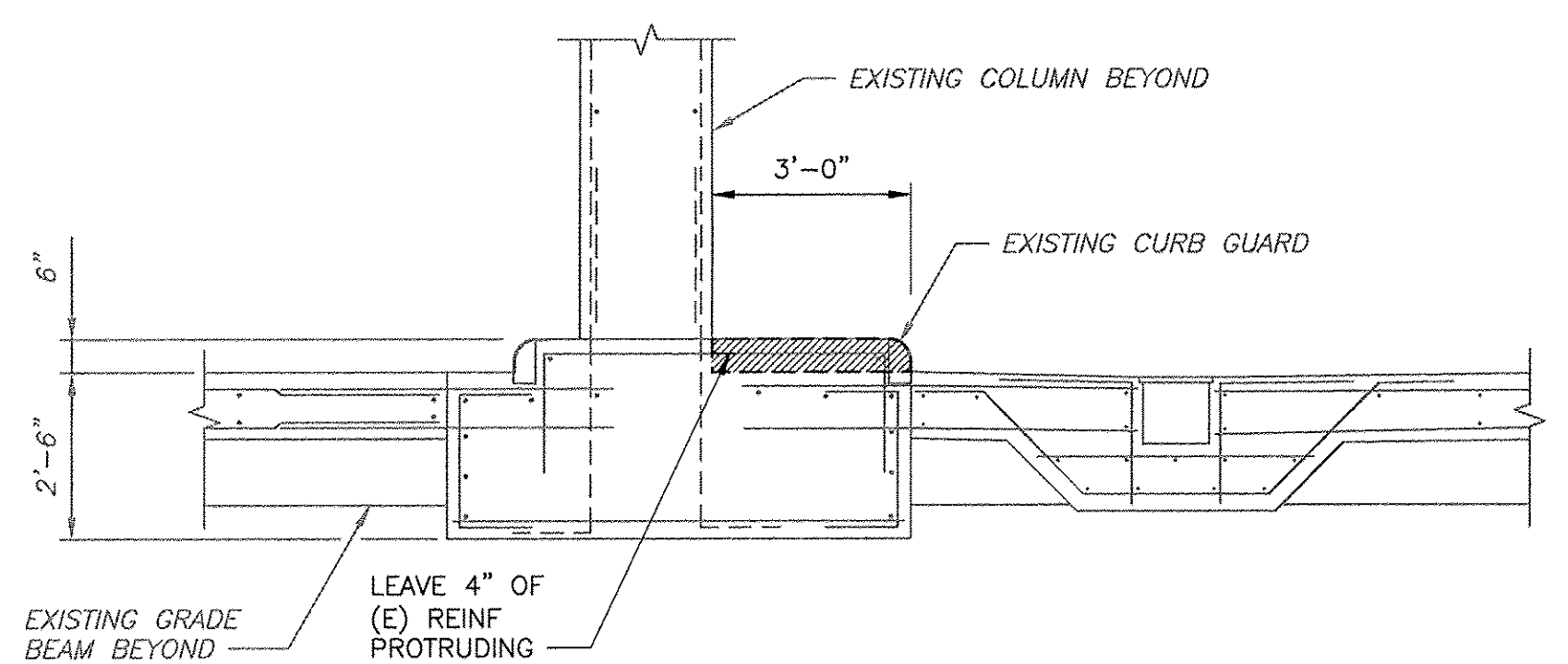
STRUCTURAL REPAIR PLAN II

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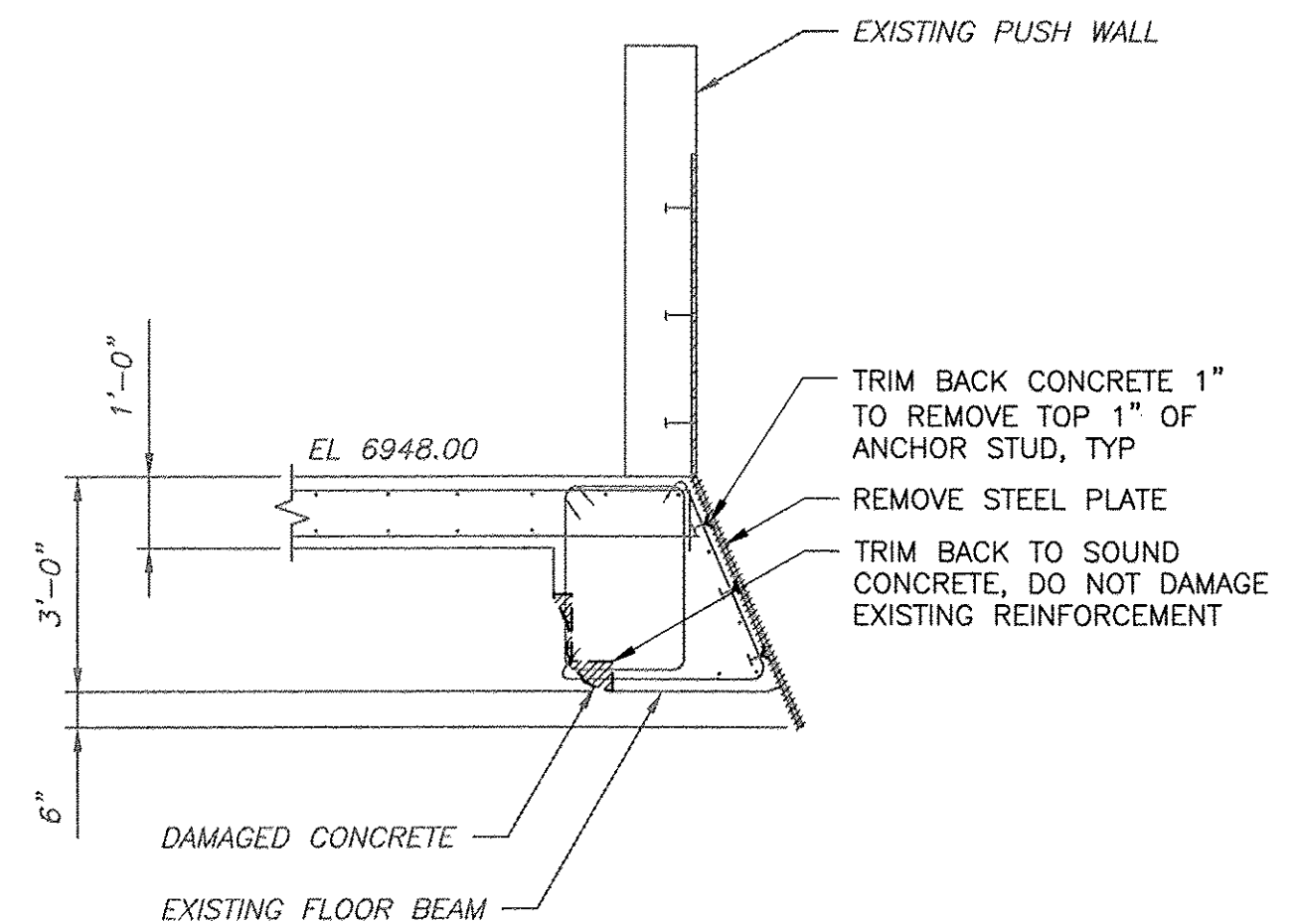
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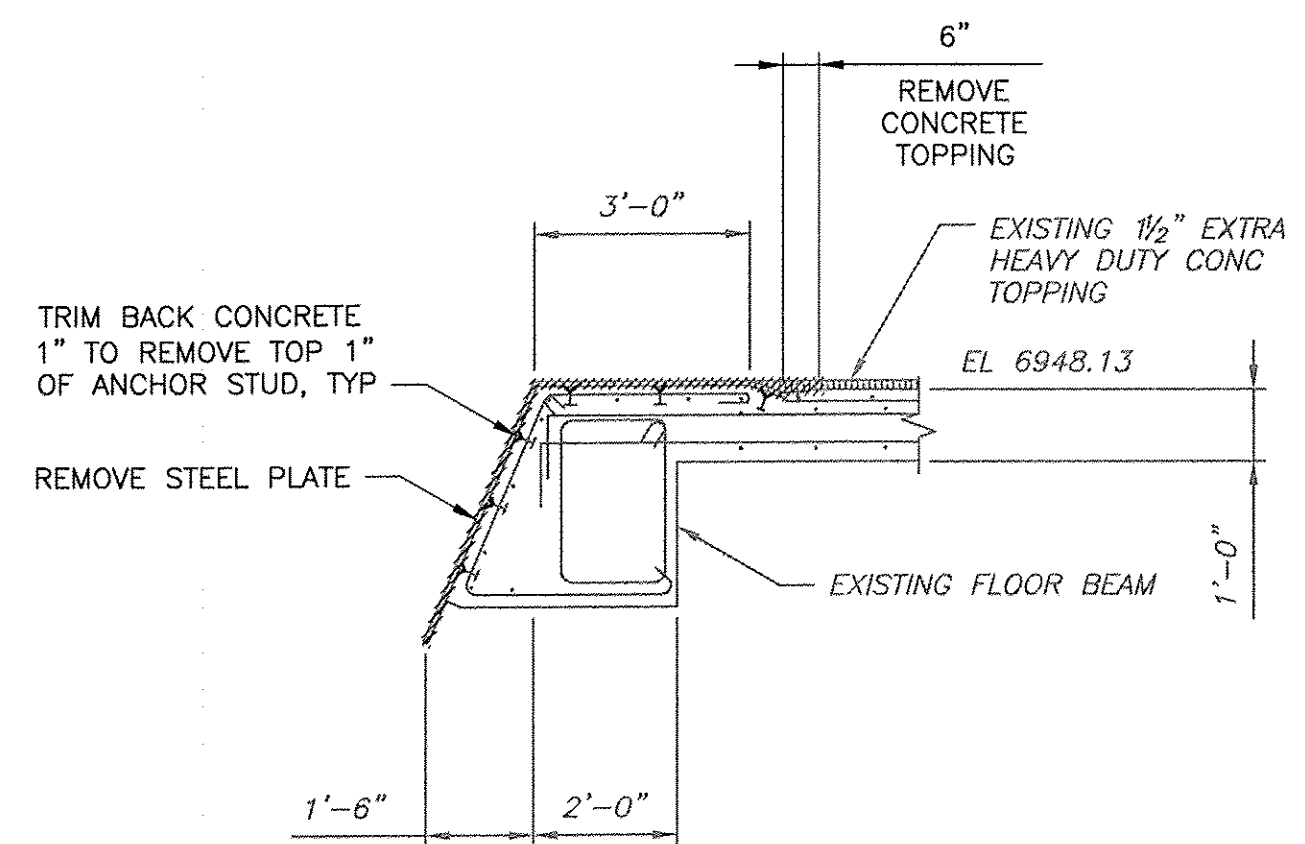
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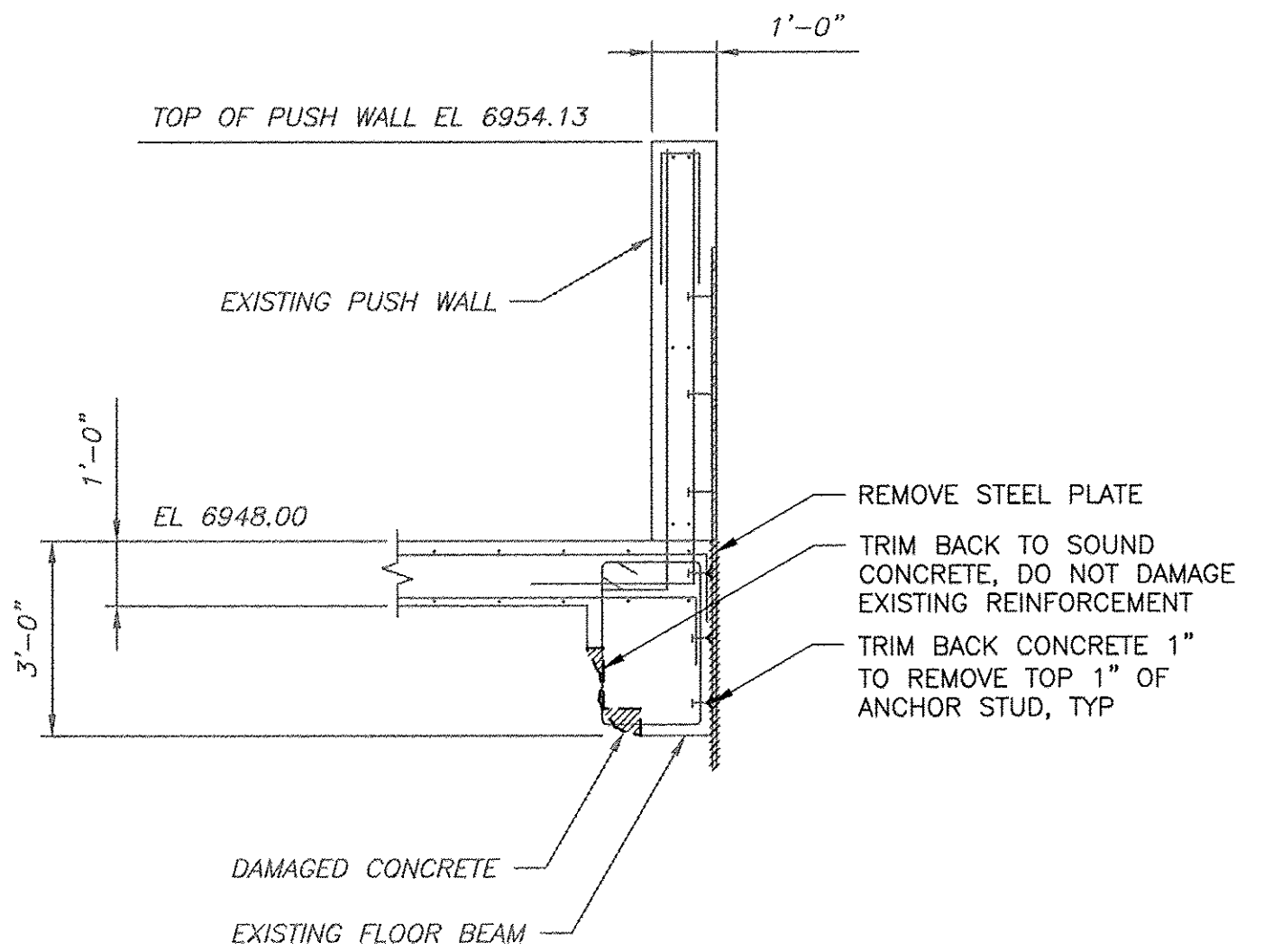
**TUNNEL FOUNDATION**  
**SECTION 1**  
 3/8" = 1'-0" S-2



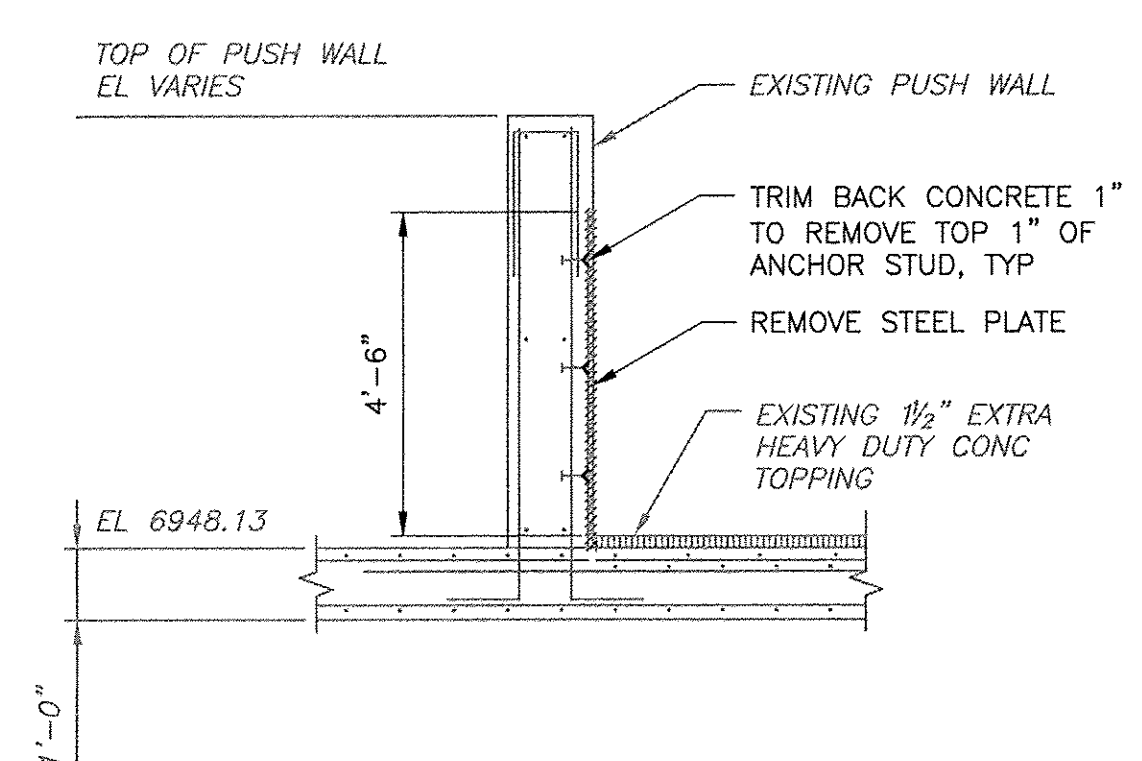
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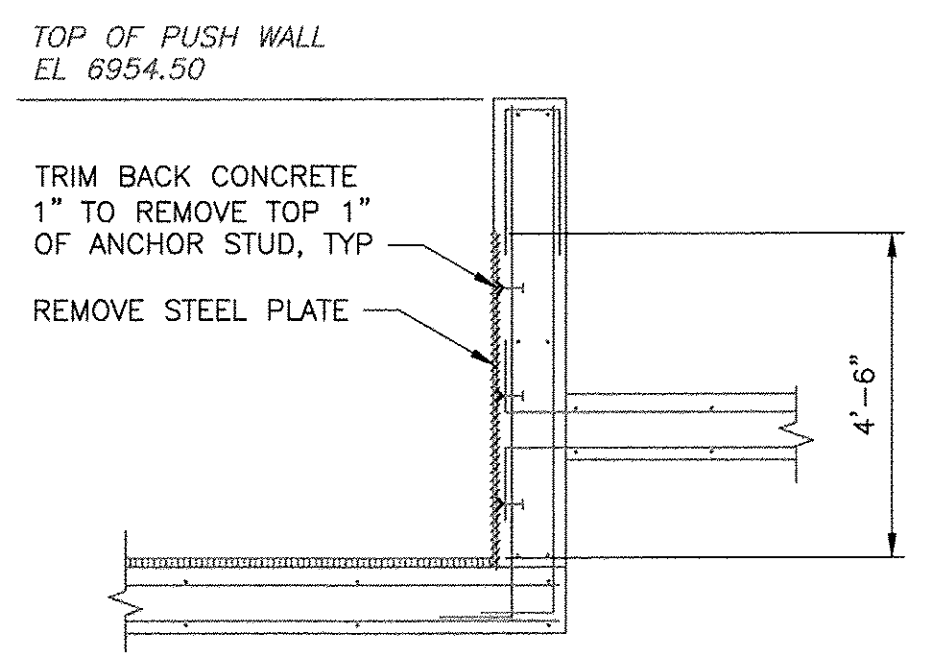
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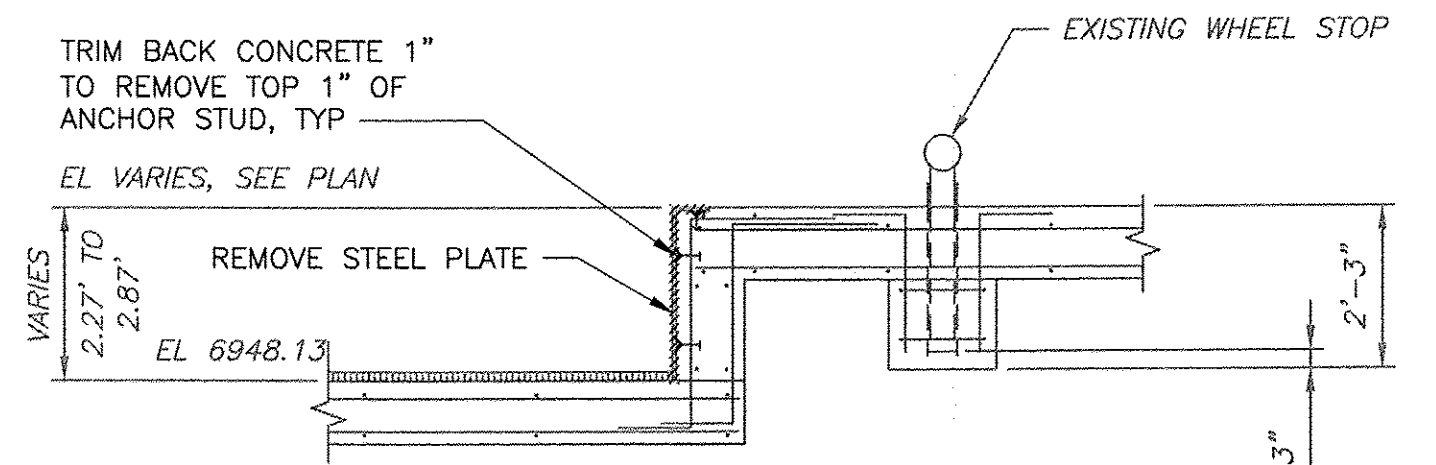
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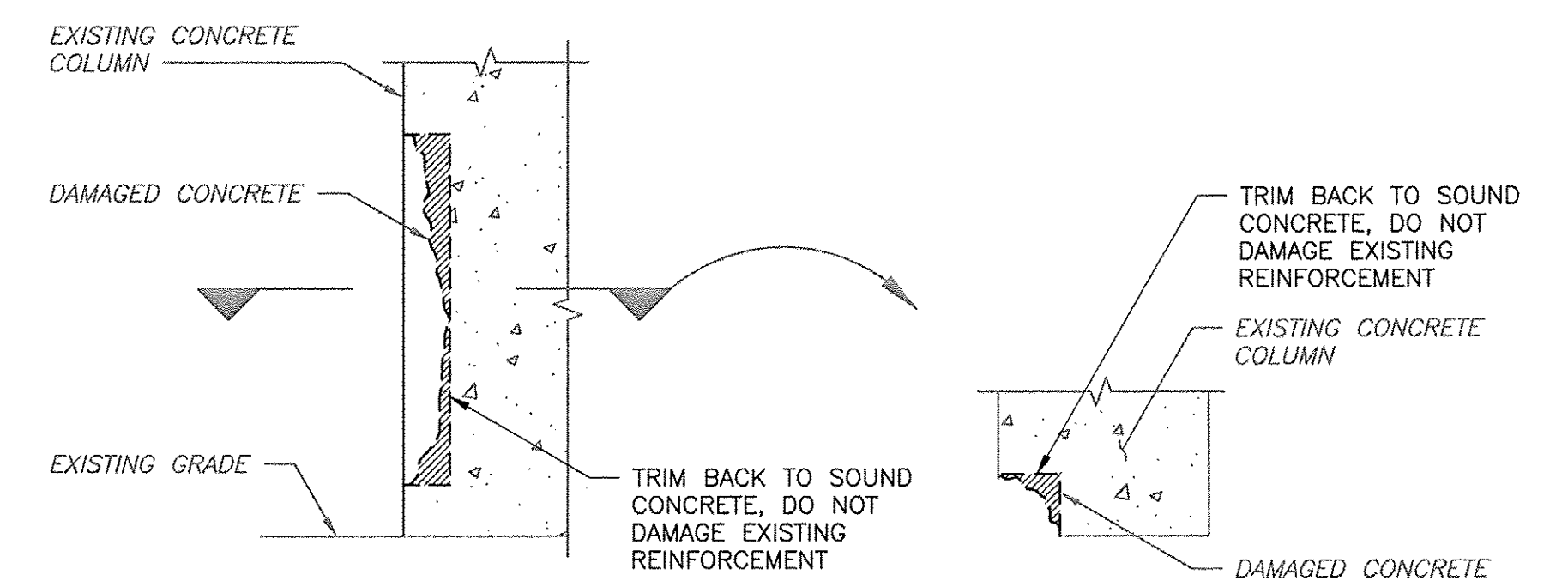
**SECTION 5**  
 3/8" = 1'-0" S-3



**SECTION 6**  
 3/8" = 1'-0" S-3



**SECTION 7**  
 3/8" = 1'-0" S-3



**DETAIL A**  
 3/8" = 1'-0" S-2

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**STRUCTURAL DEMOLITION DETAILS**  
**S-4**

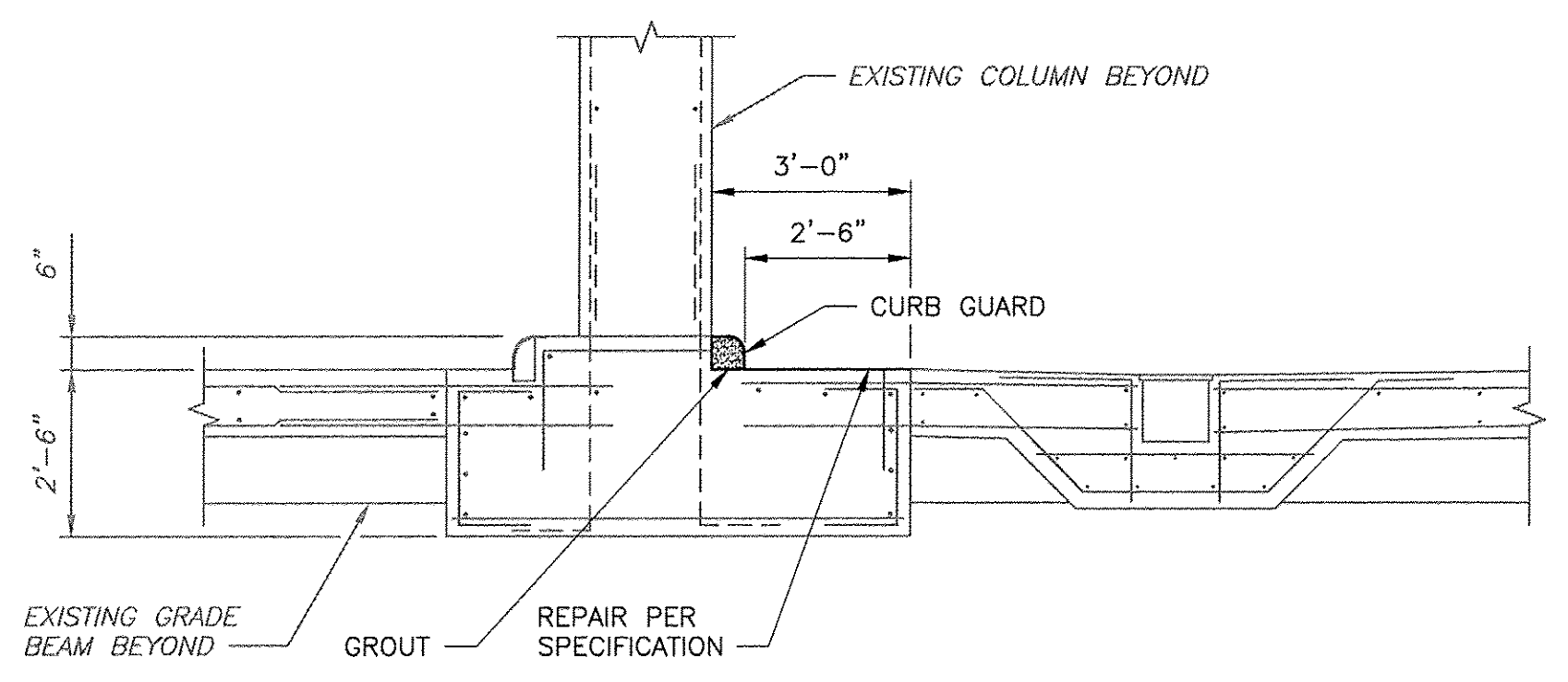
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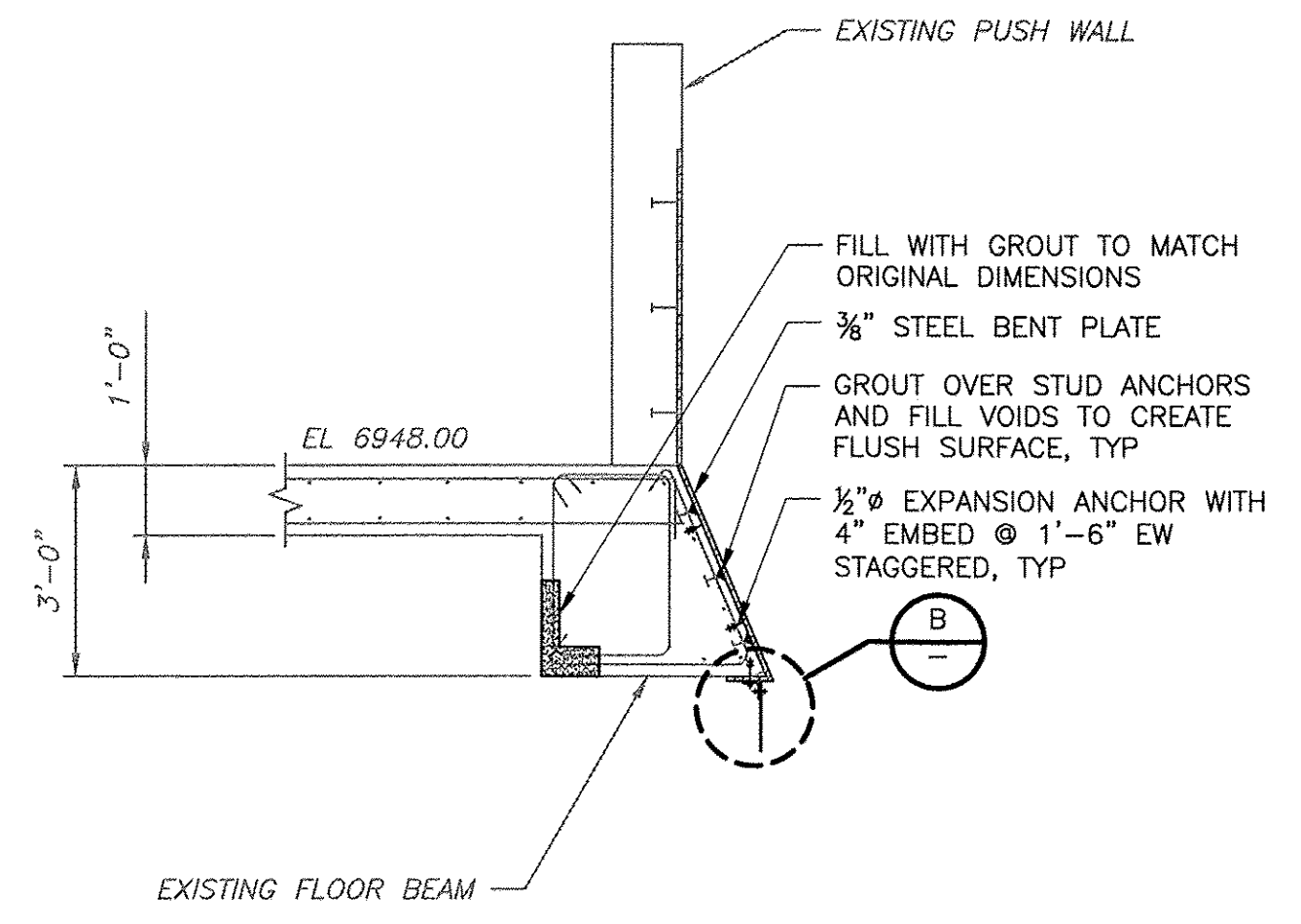
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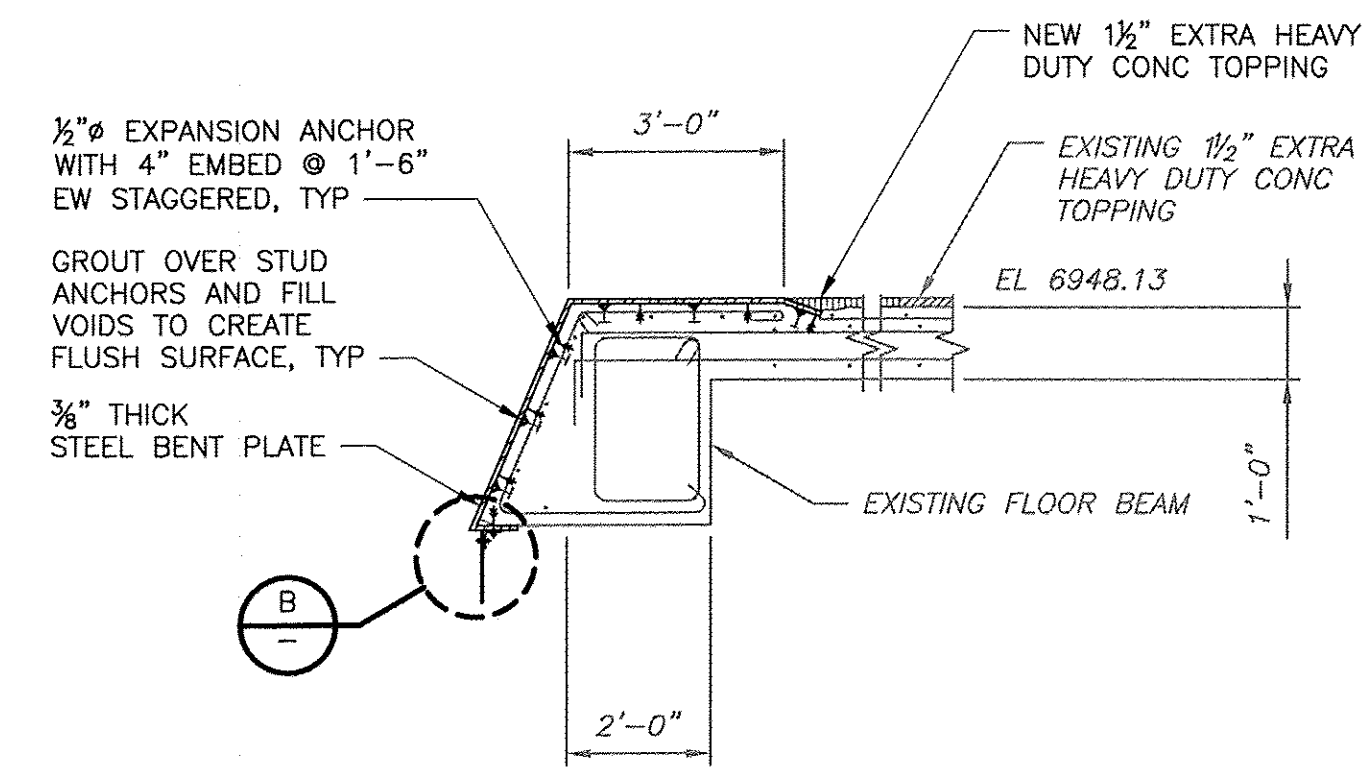
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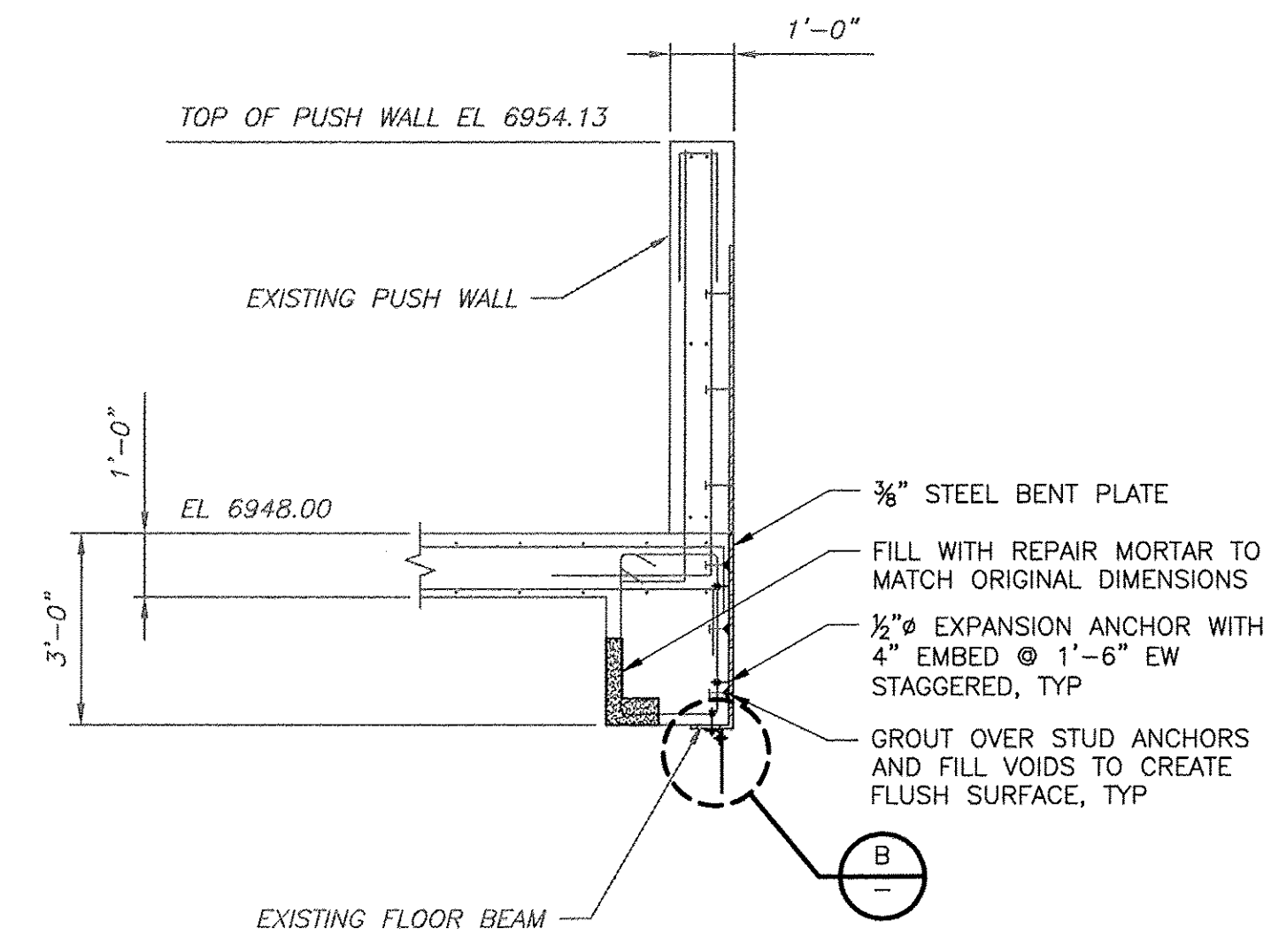
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 TUNNEL FOUNDATION  
 3/8" = 1'-0"  
 S-2



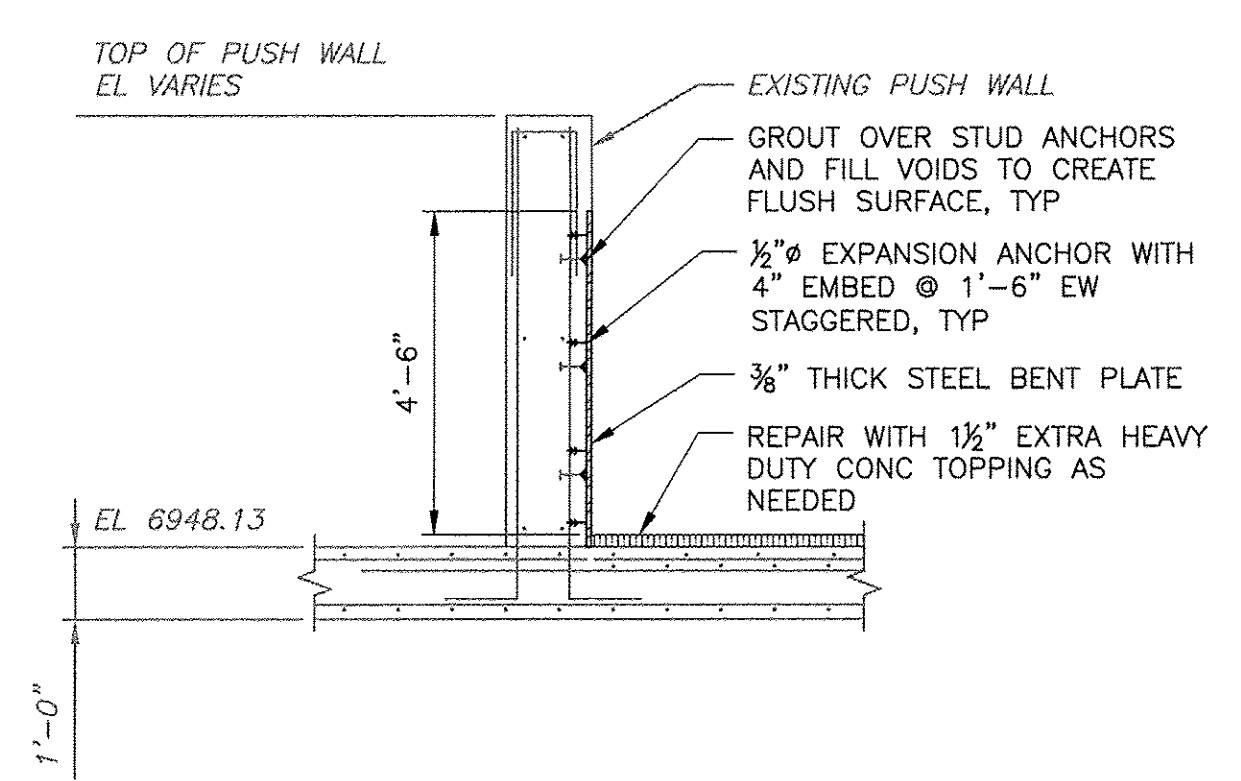
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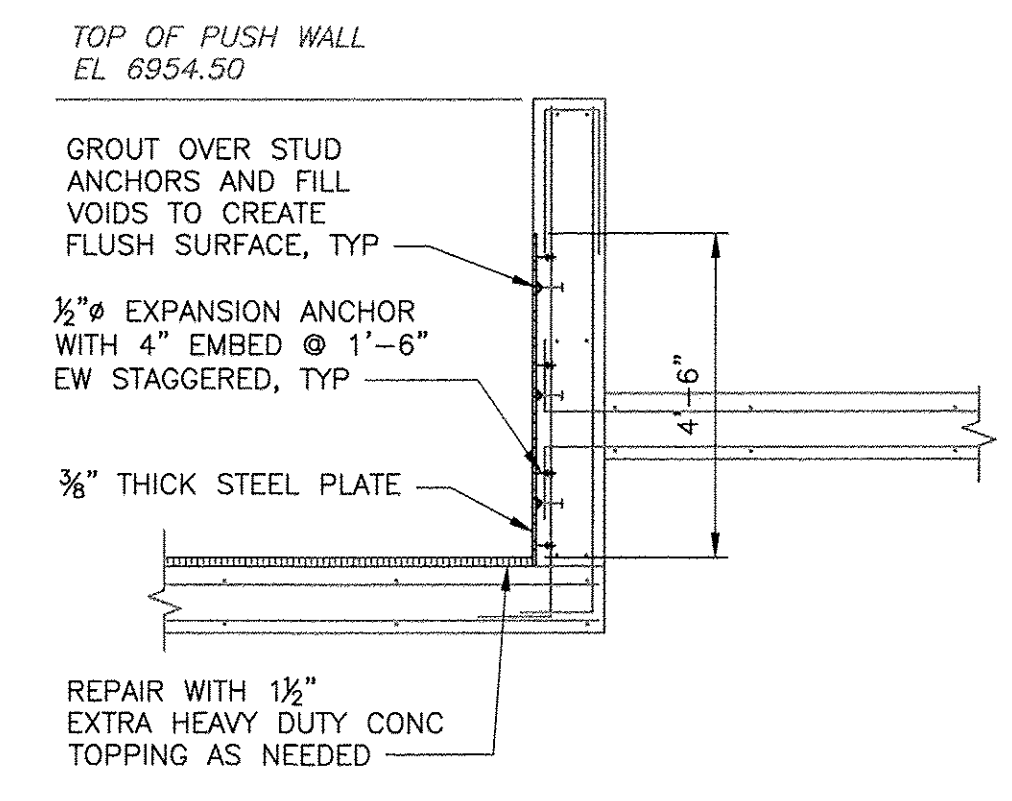
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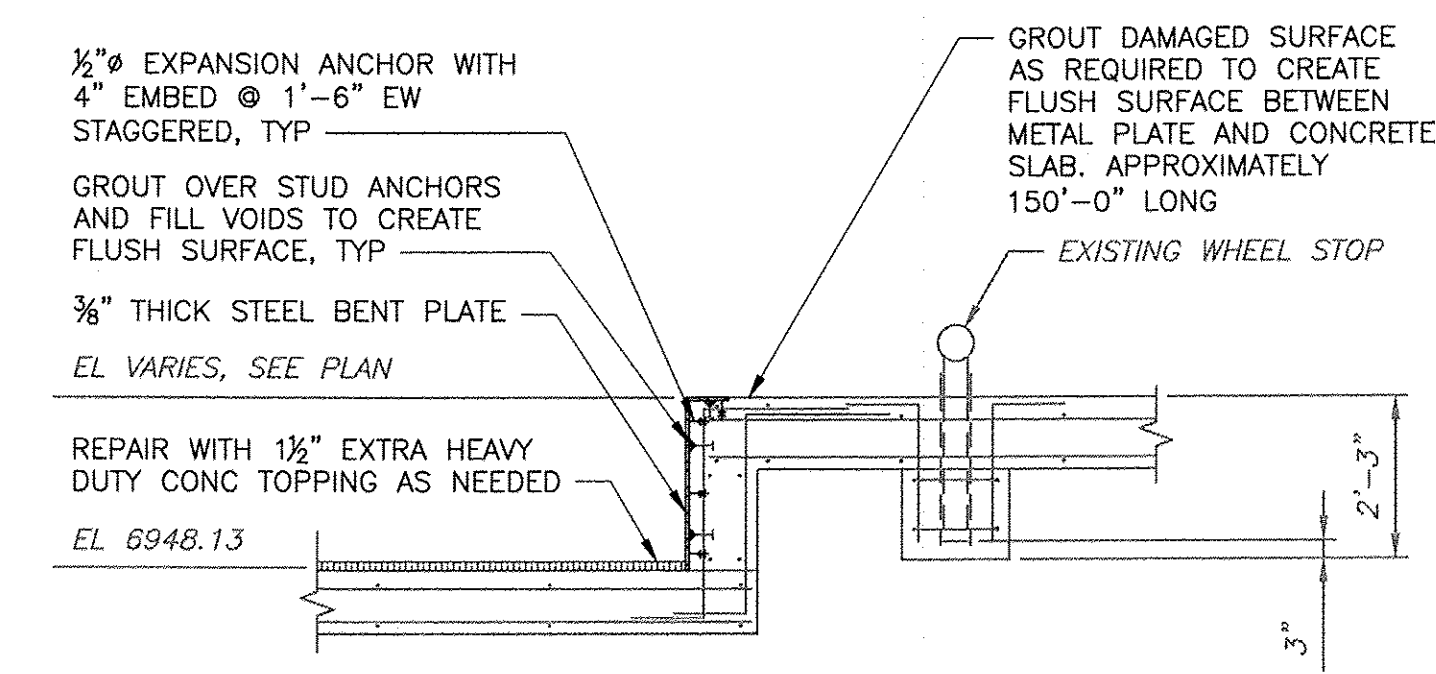
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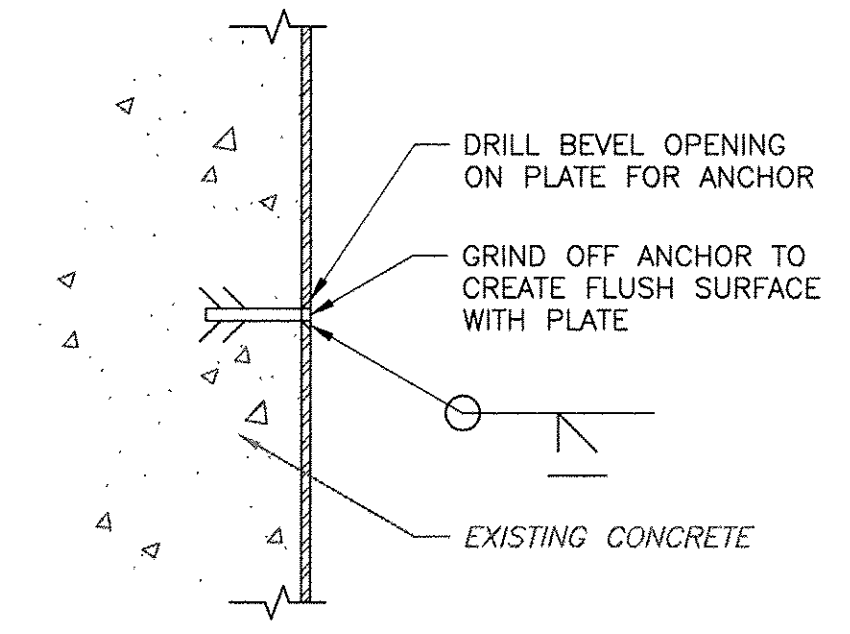
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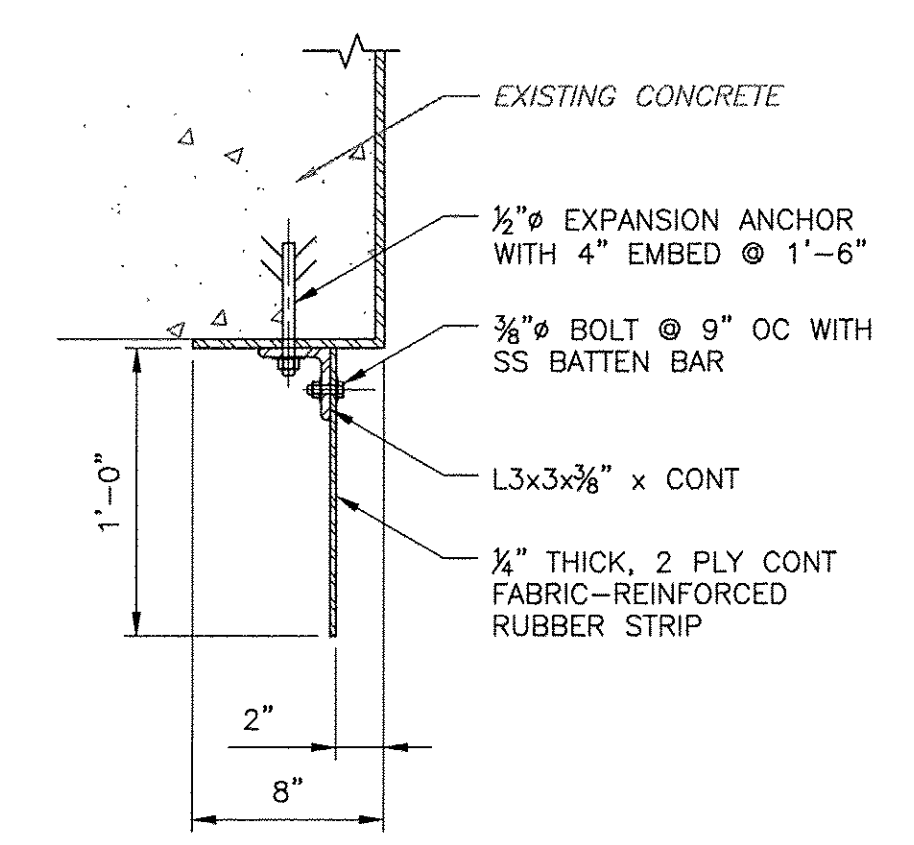
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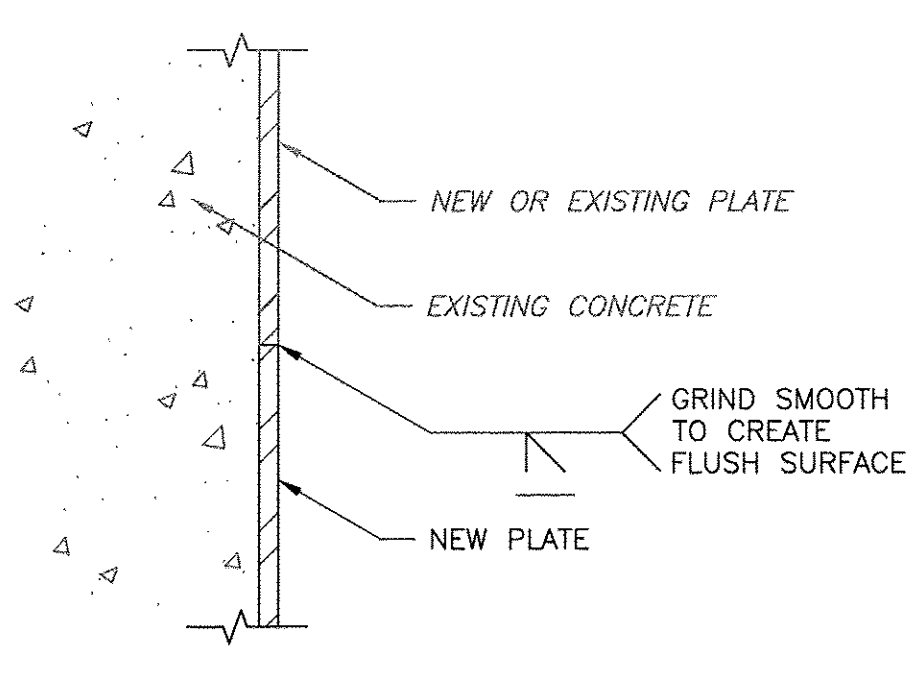
**SECTION 7**  
 3/8" = 1'-0"  
 S-3



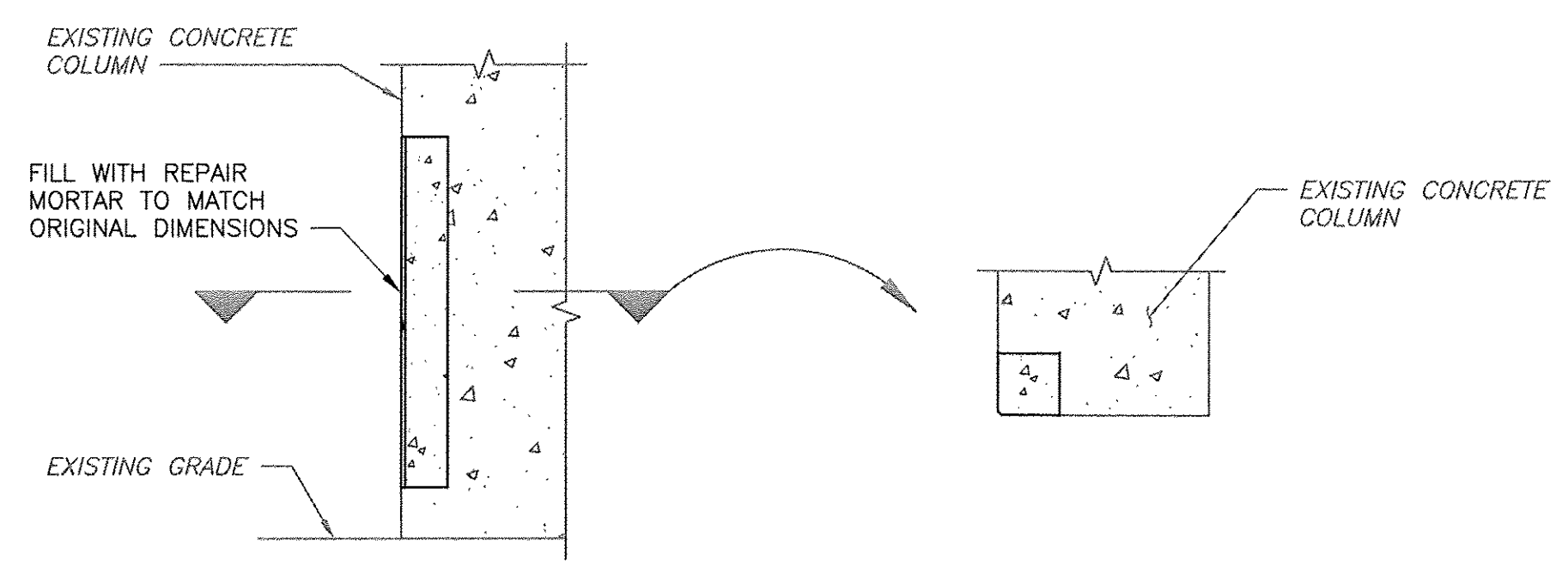
**DETAIL A**  
 ANCHOR TO PLATE CONNECTION  
 1 1/2" = 1'-0"  
 S-3



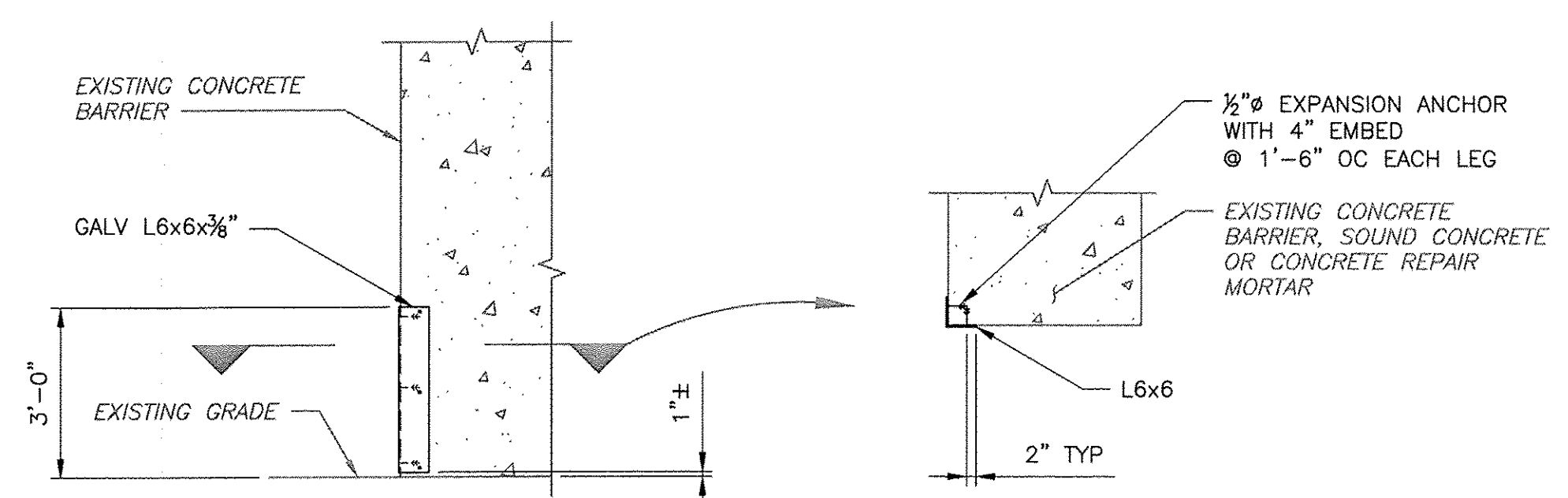
**DETAIL B**  
 1 1/2" = 1'-0"  
 S-3



**DETAIL C**  
 PLATE SPLICE  
 1 1/2" = 1'-0"  
 S-2

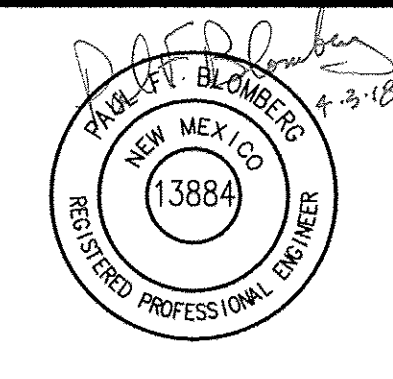


**DETAIL D**  
 3/8" = 1'-0"  
 S-2



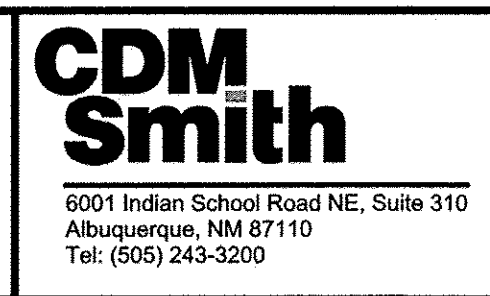
**DETAIL E**  
 3/8" = 1'-0"  
 S-2

**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" = 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.



| REV. NO. | DATE | DRWN | CHKD | REMARKS |
|----------|------|------|------|---------|
|          |      |      |      |         |
|          |      |      |      |         |

DESIGNED BY: A. HAHN  
 DRAWN BY: A. JOHNSON  
 SHEET CHK'D BY: P. BLOMBERG  
 CROSS CHK'D BY: D. WILLIAMS  
 APPROVED BY: P. BLOMBERG  
 DATE: APRIL 2018



SANTA FE SOLID WASTE MANAGEMENT AGENCY  
 BUCKMAN ROAD RECYCLING & TRANSFER STATION  
 TIPPING FLOOR REHABILITATION  
 AND GENERAL STRUCTURAL REPAIRS

**STRUCTURAL REPAIR DETAILS**  
 PROJECT NO. 10679-214241  
 FILE NAME: S005TSDT.DWG  
 SHEET NO. S-5