



Robertson County Tennessee

Jody Stewart, Finance Director

Finance Department

523 South Brown Street, Springfield, TN 37172

(615) 384-0202 Fax (615) 384-0237

POST DATE: **April 24, 2019**

BID 1417: SCALES / TRAFFIC FLOW IMPROVEMENT PROJECT for SOLID WASTE

Pre-Bid Meeting: May 1st, 2019 at 2:00 P.M. CST (see details below)

Sealed bids must be received by: **MAY 8th, 2019 at 10:00 A.M. CST**

at

Robertson County Finance Office

523 South Brown Street

Springfield, TN 37172

THE OUTSIDE OF THE ENVELOPE MUST BE MARKED WITH THE BIDDER'S COMPANY NAME, ITEM BID, TIME OF BID OPENING, DATE OF BID OPENING, BID NO. 1417 AND MUST BE MARKED "SEALED BID, DO NOT OPEN."

Bids shall be opened and read aloud to the public at the Robertson County Finance Office, 523 S. Brown Street, Springfield, TN 37172 immediately following the bid receipt deadline. Each bid must be submitted in a separate sealed envelope with the appropriate notation on the outside. All bids must be signed by an authorized agent and submitted on the prescribed forms. Submission of bids by telegraph, telephone, or other electronic means is strictly prohibited. Any proprietary items offered for bid must be equivalent as to function, basic design, type and quality of material, method of construction, and any required dimensions as required in plans with no restrictions or exclusions.

A non-mandatory pre-bid meeting will be conducting at the project site at 2 p.m. on May 1, 2019. Pre-bid meeting will begin at the Robertson County Solid Waste Facility (2916 W County Farm Rd, Springfield, TN 37172) **Advance notification is requested for the pre-bid coordination with jason.reynolds@csrengineers.com.** For assistance with technical / product information contact CSR Engineering, Inc., 1116 Main St., Pleasant View, TN 37146 (615-247-5381). For assistance with bid procedures contact Taylor Tomblin, Robertson County Finance Office at (615) 384-0202 or by email: ttomblin@robcotn.org.

Note: Robertson County reserves the right to reject any or all bids, to waive any technicalities or informalities, and to accept any bid deemed in the best interest of the County. All bids will be considered in accordance with Title VI and without regard to age, sex, color, race, creed, national origin, religious persuasion, marital status, political belief, or disability that does not prohibit the performance of duty.

INFORMATION FOR BIDDERS

BIDS will be received by The Robertson County Finance Department (herein after called the "OWNER"), at 523 South Brown Street, Springfield, TN 37172 until 10:00 A.M. (Central Standard Time) May 8, 2019, and then at said office will be publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to the OWNER at Springfield, Tennessee. Each sealed envelope containing a BID must be plainly marked on the outside as BID for TRUCK SCALE SYSTEM PROJECT and the envelope should bear on the outside the name of the BIDDER, his address and his contractor's license number, if applicable. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at Springfield, Tennessee. All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required.

Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the OWNER and the BIDDER.

The BIDDER shall have been engaged, for at least five (5) years, and properly experienced in the business of performing the type work required on the PROJECT and hold the appropriate classification of a Tennessee contractor's license.

Bidder must clearly be a manufacturer's certified installer at time of bidding, hold a current Robertson County Business License (at time of contracting) and must provide proof of automobile insurance, liability insurance and workers' compensation insurance. Robertson County assumes no liability for accidents incurred to bidder's employees while on the job site.

The BIDDER shall furnish to the OWNER all such information and data as the OWNER may request, to assist the OWNER in determining the ability of the BIDDER to perform the WORK.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities of work in the Bid Schedule by examination of the site and a review of the drawings and specifications including any issued ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or

any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond and labor and material payment bond within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the bidder. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and project bond forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which case the BID bond accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance bond, labor and material payment bond, and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by written notice withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be any reasons why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated herein.

A conditional or qualified BID will not be accepted.

Award will be made as a whole to one BIDDER.

BID FORM

Proposal of _____ (hereinafter called "BIDDER"), organized and existing under the laws of the State of _____, doing business as _____* to the County of Robertson (Springfield, TN) (hereinafter called "OWNER").

**Insert a corporation, a partnership, or an individual as applicable.*

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of TRUCK SCALE SYSTEM PROJECT in strict accordance with the CONTRACT DOCUMENTS, within the time set forth herein, and at the prices stated below.

By submission of the BID, BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 60 consecutive calendar days thereafter (to be reviewed during pre-bid meeting). BIDDER also agrees to complete all work in a manner so as not to adversely affect the daily operation of the existing Solid Waste Facility operations.

BID FORM CONT'D

BIDDER further agrees to pay as liquidated damages, the sum of \$1000 for each calendar day in which he is in default of the 60 days stipulated above.

BIDDER acknowledges receipt of the following ADDENDUM (A):

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following itemized prices:

ITEM	QUANTITY	UNIT	UNIT PRICE	ITEM TOTAL
ASPHALT (PER DETAIL)	1,187	SY		
TRUCK SCALES	2	EA		
SCALE HOUSE (W/ ALL FEATURES)	1	LS		
CONCRETE (INC. STONE BASE)	94	CY		
REINFORCING STEEL	9,000	LB		
WATER SERVICE	310	LF		
SEWER SERVICE	166	LF		
ELECTRIC SERVICE	210	LF		
DATA SERVICE CONDUIT	375	LF		

BID FORM CONT'D

BOLLARDS	10	EA		
DEMOLITION	1	LS		
GATE & FENCE REPAIR	1	LS		
DITCH GRADING, PIPE & ENTRANCE REQUIREMENTS	200	LF		
FLAGMAN	60	DAYS		

and for the **Project** total of

(\$ _____)

_____ Dollars.

(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.)

The above itemized prices, and total price for the project shall include all labor, materials, shoring, removal, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informality in the bidding. The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids. Upon receipt of written notice of the acceptance of this bid, Bidder will execute a formal Agreement and deliver a Surety Bond or Bonds and Insurance Certificates as defined in the attached bid documents.

The undersigned Bidder does hereby declare and stipulate that this bid is made in good faith, without collusion or connection with any other person or persons bidding for the same work, and that it is made in pursuance of and subject to all the terms and conditions of the Bid Documents and Specifications, and the Plans pertaining to the work to be done.

BID FORM CONT'D

The bid security attached in the sum of (5% of bid, including all items):

_____ (\$ _____)
shall become the property of the Owner in the event the Agreement, Bond and Insurance are not executed or delivered within the time above set forth as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted:

Prime Contractor Signature

Name: _____

Company: _____

Title: _____

Business Address: _____

Contractor's License No: _____

License Expiration Date: _____

Telephone Number: _____

Email Contact: _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____
_____ as PRINCIPAL, and _____
_____ as Surety, are hereby held and firmly
bound unto The County of Robertson (Springfield, TN) as **OWNER** in the penal sum of
_____ for the payment of which, well and
truly to be made, we hereby jointly and severally bind ourselves, successor and assigns.

Signed, this _____ day of _____, 20__.

The Condition of the above obligation is such that whereas the PRINCIPAL has submitted
to Robertson County a certain Bid, attached hereto and hereby made a part hereof to
enter into a contract in writing, for the TRUCK SCALE SYSTEM PROJECT.

NOW, THEREFORE,

- a. If said BID shall be rejected, or in the alternate,
- b. If said BID shall be accepted and the PRINCIPAL shall execute and deliver a contract
in the Form of Contract attached hereto (properly completed in accordance with
said BID) and shall furnish a bond for his faithful performance of said contract, and
for the payment of all persons performing labor or furnishing materials in
connection therewith, and shall in all other respects perform the agreement created
by the acceptance of said **BID**, then this obligation shall be void, otherwise the same

shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the PRINCIPAL and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper offices, the day and year first set forth above.

Principal

Surety

By: _____

IMPORTANT – Surety companies executing bonds must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the State of Tennessee where the project is located.

DRUG-FREE WORKPLACE AFFIDAVIT

The undersigned, principal officer of _____, an employer of five (5) or more employees contracting with Robertson County, Tennessee government to provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of _____ (hereinafter referred to as the "Company"), and is duly authorized to execute this affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9, of the *Tennessee Code Annotated*.
3. The Company is in compliance with T.C.A. § 50-9-113.

Authorized Signature, Title (Owner/ Corporate Officer) **Date**

Printed Name

Company Name

Mailing Address

Telephone No. **Fax No.**

Witness Signature **Date**

Witness printed name

Robertson County, Tennessee
NON-COLLUSION AFFIDAVIT

The agent of the bidding firm hereby certifies to the best of his/her knowledge and belief that this bid proposal to Robertson County, Tennessee has not been prepared in collusion with any other seller of similar products. The agent also certifies that the prices, terms and conditions of said bid proposal have not been communicated by the undersigned, nor by any employee or agent of the bidding firm, to any other seller of similar products and will not be communicated to any such seller prior to the official opening of said bid. The agent further states that no official or employee of Robertson County Government has promised any personal financial or other beneficial interest, either directly or indirectly in order to influence award of this bid.

Authorized Signature, Title (Owner/ Corporate Officer)

Date

Printed Name

Company Name

Mailing Address

Telephone No.

Fax No.

Contact preferred email address

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20_____, by and between The County of Robertson (Springfield, TN), hereinafter called “OWNER” and _____ doing business as (an individual,) or (a partnership,) or (a corporation) hereinafter called “CONTRACTOR”.

WITNESSETH: that for an in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of the TRUCK SCALE SYSTEM PROJECT.
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the project described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS on or before a date to be specified in the NOTICE TO PROCEED and shall complete the work within bid document requirements for consecutive calendar days and all stated requirements thereafter.
4. The CONTRACTOR agrees to perform all the WORK described in the CONTRACT DOCUMENTS for the sum of \$_____.
5. The term “CONTRACT DOCUMENTS” means and includes the following:
 - A. Advertisement For Bids
 - B. Information For Bidders

- C. Bid
- D. Bid Bond
- E. Agreement
- F. General Conditions
- G. Supplemental General Conditions
- H. Payment Bond
- I. Performance Bond
- J. Notice of Award
- K. Notice to Proceed
- L. Change Orders
- M. DRAWINGS and SPECIFICATIONS prepared or issued by CSR Engineering, Inc. dated March 2019.
- N. ADDENDA:
 - No. _____, dated _____, 20__
 - No. _____, dated _____, 20__
 - No. _____, dated _____, 20__
 - No. _____, dated _____, 20__

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in two (2) (number of copies) each of which shall be deemed an original on the date first above written.

OWNER:

By: _____

Name: _____

(Please Type)

Title: _____

ATTEST:

Name: _____

(Please Type)

Title: _____

CONTRACTOR:

By: _____

Name: _____

(Please Type)

Address: _____

(SEAL)

ATTEST:

Name: _____

(Please Type)

Address: _____

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____ (Name of Contractor)

_____ (Address of Contractor)

a _____, hereinafter called
(Corporation, Partnership, or Individual)

PRINCIPAL, and _____ (Name of Surety)

_____ (Address of Surety)

hereinafter called SURETY, are held and firmly bound unto **The County of Robertson (Springfield, TN) located at 523 Brown Street, Springfield, Tennessee 37172**

hereinafter called OWNER, in the penal sum of _____ Dollars, \$ (_____) in lawful

money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successor and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the _____ day of _____, 20____ a copy of which is hereto attached and made a part hereof for construction of: TRUCK SCALE SYSTEM PROJECT.

NOW THEREFORE, if the PRINCIPAL, shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alternation or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alternation or addition to the terms of the contract or to the work or to the specifications.

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

IN WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20__

ATTEST:

Principal

(Principal) Secretary

(SEAL)

By: _____ (s)

(Address)

Witness as to Principal

(Address)

ATTEST:

Surety

(Surety) Secretary

(SEAL)

By: _____
Attorney-in-Fact

Witness as to Surety

(Address)

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

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Tennessee where the project is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____ (Name of Contractor)

_____ (Address of Contractor)

a _____, hereinafter called
(Corporation, Partnership, or Individual)

PRINCIPAL, and _____ (Name of Surety)

_____ (Address of Surety)

hereinafter called SURETY, are held and firmly bound unto

The County of Robertson (Springfield, TN)

523 Brown Street, Springfield, Tennessee 37172

hereinafter called OWNER, in the penal sum of _____

_____ Dollars,

\$ (_____) in lawful money of the United States, for the payment of

which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of: TRUCK SCALE SYSTEM PROJECT.

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertaking, covenants, terms, conditions, and agreements of said contract during the original term thereof, and extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alternation or addition of the terms of the contract or to work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

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

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

ATTEST:

Principal

(Principal) Secretary

(SEAL)

By: _____ (s)

(Address)

Witness as to Principal

(Address)

(Address)

ATTEST:

Surety

(Surety) Secretary

(SEAL)

Witness to Surety

By: _____
Attorney-in-Fact

(Address)

(Address)

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

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Tennessee where the project is located.

NOTICE OF AWARD

To: _____

PROJECT Description:

TRUCK SCALE SYSTEM PROJECT, The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated _____, 20____, and Information for Bidders. You are hereby notified that your BID has been accepted for the work in the amount of \$ _____.

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond and Payment Bond within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said bonds within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out

of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 20 _____

TRUCK SCALE SYSTEM PROJECT

Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the NOTICE OF AWARD is hereby acknowledged by _____
_____, this the _____ day of _____, 20_____

TRUCK SCALE SYSTEM PROJECT

By: _____

Title: _____

Contractor should send one completed copy of this form to:

Ms. Taylor Tomblin
Purchasing Officer
Robertson County
523 South Brown Street
Springfield, TN 37172

NOTICE TO PROCEED

To: _____

Date: _____

Project: TRUCK SCALE SYSTEM PROJECT

You are hereby notified to commence work in accordance with the Agreement dated _____, 20____, on or before _____, and you are to complete all WORK within 60 consecutive calendar days thereafter.

The County of Robertson (Springfield, TN)
Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the NOTICE TO PROCEED is hereby acknowledged by _____
_____, this the _____ day of _____ 20_____.

TRUCK SCALE SYSTEM PROJECT

By: _____

Title: _____

Contractor should send one completed copy of this form to:

Ms. Taylor Tomblin
Purchasing Officer
Robertson County
523 South Brown Street
Springfield, TN 37172

CHANGE ORDER

Order No. _____

Date: _____

Agreement Date: _____

NAME OF PROJECT: TRUCK SCALE SYSTEM PROJECT

OWNER: The County of Robertson (Springfield, TN)

CONTRACTOR: _____

The following changes are hereby made to the CONTRACT DOCUMENTS:

Justification:

Change to CONTRACT PRICE: \$ _____

Original CONTRACT PRICE: \$ _____

Current CONTRACT PRICE adjusted by previous CHANGE ORDER: \$ _____

The CONTRACT PRICE due to this CHANGE ORDER will be (increased) by: \$ _____

The CONTRACT PRICE including this CHANGE ORDER will be: \$ _____

Change to CONTRACT TIME:

The CONTRACT TIME will be (increased) (decreased) by _____ calendar days.

The date for completion of all work will be _____ (Date). Sketch should accompany Change Order when necessary for clarification.

Approvals Required:

To be effective this Order must be approved by the owner if it changes the scope or objective of the project, or if it will increase the budgeted amounts of funds needed to complete the project, or as may otherwise be required by the SUPPLEMENTAL GENERAL CONDITIONS.

Requested by: County of Robertson (Springfield, TN)

Recommended by: CSR Engineering, Inc.

Ordered by: County of Robertson (Springfield, TN)

Accepted by: (Contractor)

Federal Agency Approval (where applicable): _____

GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in Quantities, Plans or Character of the Work
14. Extra Work
15. Time for Completion and Liquidated Damages
16. Correction of Work
17. Suspension of Work, Termination and Delay
18. Payments to Contractor
19. Acceptance of Final Payment as Release
20. Contract Security
21. Assignments

22. Separate Contracts

23. Subcontracting

24. Engineer's Authority

25. Land and Rights-of-Way

26. Guarantee

1. DEFINITIONS

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:
- 1.2 **ADDENDA** – Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS, and SPECIFICATIONS, by additions, deletions, clarifications or corrections.
- 1.3 **BID** – The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 **BIDDER** – Any person, firm or corporation submitting a BID for the WORK.
- 1.5 **BONDS** – Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his SURETY in accordance with the CONTRACT DOCUMENTS.
- 1.6 **GENERAL CONTRACT PROVISIONS** – Modifications to the General Conditions required by OWNER and/or a Federal Agency for participation in the Project.
- 1.7 **SPECIAL CONTRACT PROVISIONS** – Additional Modifications to the General Conditions and/or the OWNER General Contract Provisions required by OWNER and/or Federal Agency for participation in the Project.
- 1.8 **CHANGE ORDER** – A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.
- 1.9 **CONTRACT DOCUMENTS** – The contract, including Advertisement For Bids, Information For Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, GENERAL PROVISIONS, SUPPLEMENTAL GENERAL CONDITIONS AND OWNER’S GENERAL AND SPECIAL CONTRACT PROVISIONS and ADDENDA.
- 1.10 **CONTRACT ITEM (PAY ITEM)** – A specifically described unit of work for which a price is provided in the CONTRACT DOCUMENTS.
- 1.11 **CONTRACT TIME** – The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

- 1.13 **CONTRACTOR** – The person, firm or corporation with whom the OWNER has executed the Agreement.
- 1.14 **DRAWINGS** – The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- 1.15 **ENGINEER** – The person, firm or corporation named as such in the CONTRACT DOCUMENTS.
- 1.16 **FIELD ORDER** – A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.17 **NOTICE OF AWARD** – The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.
- 1.18 **NOTICE TO PROCEED** – Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.
- 1.19 **OWNER** – A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.
- 1.20 **PROJECT** – The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.21 **RESIDENT PROJECT REPRESENTATIVE** – Authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.
- 1.22 **SHOP DRAWINGS** – All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.23 **SUBCONTRACTOR** – An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.
- 1.25 **SUBSTANTIAL COMPLETION** – That date as certified by the ENGINEER when the construction of the PROJECT is sufficiently completed, in accordance with the CONTRACT

DOCUMENTS, so that the PROJECT can be utilized for the purposes for which it is intended.

- 1.26 **SUPERINTENDENT** – The CONTRACTOR’S authorized representative in responsible charge of the work.
- 1.27 **SUPPLIERS** – Any person, supplier or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.
- 1.28 **WORK** – All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated in the PROJECT.
- 1.29 **WRITTEN NOTICE** – Any notice to any part of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

- 2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the **CONTRACT DOCUMENTS**.
- 2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS AND RECORDS

- 3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the OWNER may request concerning WORK performed or to be performed.
- 3.2 Within 10 days after receipt of the NOTICE OF AWARD, the CONTRACTOR shall submit schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part, and, as applicable:

- 3.2.1 The dates at which special detail drawings will be required, and
- 3.2.2 The respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.
- 3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK when requested by the OWNER.
- 3.4 If the **CONTRACTOR'S** operations are materially affected by changes in the plan or in the amount of the work or if he has failed to comply with submitted progress schedule, the **CONTRACTOR** shall submit a revised project schedule, if requested by the **ENGINEER**, which schedule will show how he proposes to prosecute the balance of the work. The **CONTRACTOR** shall incorporate into every progress schedule submitted, any contract requirements regarding the order of performance of portions of the work. The **CONTRACTOR** shall use all practical means to make the progress of the work conform to that shown on the progress schedule which is in effect. No payment will be made to the **CONTRACTOR** while he is delinquent in the submission of a progress schedule. Should the prosecution of the work, for any reason, be discontinued, the CONTRACTOR shall notify the ENGINEER at least 24 hours in advance of resuming operations.

4. DRAWINGS AND SPECIFICATIONS

- 4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the **CONTRACTOR** shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.
- 4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.
- 4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his

discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

5. SHOP DRAWINGS

- 5.1 The CONTRACTOR shall prepare and submit SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS, showing all details of fabrication for all parts of the structure. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S review and acceptance of any SHOP DRAWINGS shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS and shall require a CHANGE ORDER.
- 5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.
- 5.3 SHOP DRAWINGS prepared by the CONTRACTOR and accepted by the ENGINEER shall be deemed the correct interpretation of the work to be done, but they do not relieve the CONTRACTOR of the responsibility for the accuracy of details and dimensions. Fabrication tolerances shall be shown on the shop drawings. Where necessary to assure proper fit-up members, closer tolerances than those required herein shall be shown.
- 5.4 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

6. MATERIALS, SERVICES AND FACILITIES

- 6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of

any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

- 6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.
- 6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and continued as directed by the manufacture.
- 6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.
- 6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

7. INSPECTION AND TESTING

- 7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards.
- 7.2 The CONTRACTOR shall provide at his expense the necessary testing and inspection services required by the CONTRACT DOCUMENTS, unless otherwise provided.
- 7.3 The ENGINEER shall provide all other inspection and testing services not required by the CONTRACT DOCUMENTS. Any damage to existing facilities will be the responsibility of the CONTRACTOR and the CONTRACTOR shall reimburse the OWNER prior to final payment.
- 7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require and WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

- 7.5 Neither observations by the ENGINEER nor inspections, test or approvals by persons other than the CONTRACTOR shall relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.
- 7.6 The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.
- 7.7 If any WORK is covered contrary to the written request of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.
- 7.8 If any WORK has been covered which the ENGINEER has not specifically requested to observe prior to its being covered, or if the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

8. SUBSTITUTIONS

- 8.1 Whenever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient

requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment or equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to the specified, the ENGINEER may approve, with the OWNER'S approval, its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitution will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

9. PATENTS

9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the CONTRACTOR has reason to believe that the design, process or product specified in an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

10. SURVEYS, PERMITS, REGULATIONS

10.1 The OWNER shall furnish all land surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for constructing such as

slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations, and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or dues.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, laws, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may

affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

11.4 Until final acceptance of the project, the CONTRACTOR shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause arising from the execution or from the non-execution of the work. The CONTRACTOR shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the CONTRACTOR, including but not limited to acts of God, or the public enemy or governmental authorities.

12. SUPERVISION BY CONTRACTOR

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the

CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

13. CHANGES IN QUANTITIES, PLANS OR CHARACTER OF THE WORK

13.1 The ENGINEER reserves the right to make, by CHANGE ORDER, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alternations shall not invalidate the contract nor release the surety, and by signing a CHANGE ORDER, the CONTRACTOR agrees to perform the work as altered and agrees to accept, as payment in full for such work, the monetary amounts set forth in such CHANGE ORDER, as balanced by the ENGINEER. In addition, by signing the CHANGE ORDER, the CONTRACTOR releases the OWNER from any and all claims for compensation with regard to the items of work specified in the CHANGE ORDER, including but not limited to, any and all claims for delay and overhead, unless the ENGINEER is notified in writing at the time of signing the CHANGE ORDER that the CONTRACTOR refuses to release the OWNER from such claims. All increases in quantities which appear in the CONTRACT as PAY ITEMS shall be paid for at the contract unit prices. Decreases in quantities shall be deducted from the contract at the contract unit price.

13.1a If the alterations or changes in quantities significantly change the character of the work under the Contract, whether or not changed by any such different quantities or alterations, an adjustment will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for on the basis of the actual quantity completed at the unit price for such named in the Contract. The term "significant change" shall be construed to apply only to the following circumstances:

1. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or
2. When an item or work, whose total cost is determined by multiplying the contract quantity by the contract unit price and is greater than 5 percent of the original contract price, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed, or
3. When such changes or alterations are sufficient in magnitude to affect the unit cost by 10 percent or more, considering all of the estimated quantity used for bidding purposes, or considering the altered portion of the item, the change in cost shall equal 25,000 dollars or more whichever is the lesser.

13.1b During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed. Upon written notification, the ENGINEER will investigate the conditions, and if the ENGINEER determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the CONTRACT, an adjustment will be made and the CONTRACT modified in writing accordingly. The ENGINEER will notify the CONTRACTOR of the determination whether or not an adjustment of the CONTRACT is warranted.

No contract adjustment which results in a benefit to the CONTRACTOR will be allowed unless the CONTRACTOR has provided the required written notice.

No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

No contract adjustment will be allowed unless such changes or alterations are sufficient in magnitude to affect the unit cost by 10 percent or more, considering all of the estimated quantity used for bidding purposes, or considering the altered portion of the item, the change in cost shall equal 25,000 dollars or more, whichever is lesser.

In no event shall a differing site condition invalidate the contract or release Surety.

14. EXTRA WORK

14.1 In connection with the work covered by the contract, the ENGINEER may, at any time during the progress of the work, order extra work, including materials incidental thereto. The CONTRACTOR shall perform this work whenever it is deemed necessary by the ENGINEER to fully complete the project as contemplated, and such work shall be done in accordance with the intent of the SPECIFICATIONS under the direction of the ENGINEER. Prior to ordering any extra work, the ENGINEER shall furnish written notification stating the location, kind and estimated quantity of the extra work to be done. The CONTRACTOR shall indicate in writing to the Engineer the compensation (unit price or lump sum) for which the extra work will be performed. This proposal shall be submitted to the ENGINEER for approval. If the ENGINEER considers the unit price or lump sum price excessive, the proposal may be disapproved and the work ordered done by force account in accordance with Subsection 14.2.

14.2 When extra work is required, it shall be performed in accordance with the requirements and provisions of Subsection 14.1. Payment for such work will be on the unit price or lump sum basis agreed upon in accordance with Subsection 14.1. When such agreement cannot be reached, the ENGINEER may order such work, including any off-site work, to be done by force account. The compensation as herein provided shall be accepted by the CONTRACTOR as payment in full for extra work done by force account, and the said percentages shall cover profit, superintendence, general expense, overhead, miscellaneous tools and equipment. For approved subcontract work, the CONTRACTOR will be paid an amount equal to 6 percent of the total cost of the subcontract work, as reimbursement for administrative costs incurred in connection with the subcontract work.

When it is necessary for the CONTRACTOR to hire a firm to perform a specialized type of work or service for which the CONTRACTOR or SUBCONTRACTORS are not qualified to do, payment will be made at the invoice cost. The CONTRACTOR will be paid an amount equal to 6 percent of invoice cost, as reimbursement for administrative costs. Prior approval by the ENGINEER is required.

- 14.2a The CONTRACTOR shall furnish to the ENGINEER, itemized reports of the costs of all force account work. The reports shall be furnished each week and shall include a certified copy of the weekly payroll and copies of bills for the materials used and the freight charges paid on same. Discount for prompt payment or penalty for late payment will not be considered in determining the net amount of the bill. The net amount of the bill shall be charged to the force account work. Where materials used are not specifically purchased for use on extra work but are taken from the CONTRACTOR'S stock, the CONTRACTOR shall submit a certification of the quantity, price, and freight on such materials in lieu of original bills and invoices.

The CONTRACTOR shall prepare itemized statements containing the following detailed information:

- Name, class, dates, number of hours worked each day, total hours computed to nearest half hour, rate, and extension for each laborer and foreman engaged.
- Designation, number of hours computed to nearest half hour worked each day, total hours and rental rate for each unit of equipment engaged.
- Quantities of materials and prices.
- Freight on materials.

The CONTRACTOR and the ENGINEER shall compare records of force account work and bring them into agreement at the end of each day.

- 14.2b For all labor and all craft foremen directly engaged in the specific work, the CONTRACTOR shall be paid the actual rate of wages and the number of hours paid said labor and foremen in accordance with approved labor agreements, computed to the nearest half hour, to which the sum of 26 percent will be added. Project Foremen will be classified as

Superintendents and their compensation will not be included in the payment provided herein.

Bond premium; Workmen's Compensation Insurance; Personal Injury Public Liability and Property Damage Public Liability Insurance; Unemployment Compensation; Federal Social Security; and payments required to be made to Employer and Employee Trusteships, the proceeds from which accrue exclusively to the benefit of the employee; will be paid for at actual cost, to which sum 20 percent will be added to the taxable fringe benefits. The CONTRACTOR shall furnish satisfactory evidence of the amounts paid for each of these required costs as related to force account work.

- 14.2c For materials, the CONTRACTOR will receive the actual cost delivered on the work including freight charges, as shown by copies of bills, to which the sum of 20 percent will be added.

If a change in the amount or type of force account work results in a surplus of the material ordered and delivered to the project site, the OWNER will reimburse the CONTRACTOR for the costs incurred returning the surplus material to the supplier.

- 14.2d No payment will be allowed for small hand and power tools which are not listed in the Rental Rate Blue Book for Construction Equipment as published by the Equipment Guide-Book Company. All small hand and power tools listed in the Rental Rate Blue Book at a rate of less than one dollar per hour will be considered as part of overhead and will not be paid for separately.

- 14.2e For any machinery and equipment, including the foreman's transportation unit, which the ENGINEER approves for use on extra work done by force account, the CONTRACTOR will be paid as follows:

The time paid for shall be the period that the equipment is required at the site of the extra work and, in addition, shall include traveling time to the location of the extra work when the equipment is moved under its own power, the actual operating time during periods of loading and unloading will be paid at the regular rental rate and transportation costs will be allowed. When the periods of work are not consecutive and the interval between termination of a period of work and the commencement of the subsequent

period does not exceed 30 days, the rates allowed will be the same as if the periods of work were consecutive.

The rental rate established for each piece of CONTRACTOR owned equipment, including appurtenances and attachments to equipment, used will be determined by use of the Rental Rate Blue Book for Construction Equipment Volume 1, 2, or 3 as applicable; the edition which is current at the time the force account work was started will apply. The established rental rate will be equal to the "Monthly" rate divided by 176; modified by the rate adjustment factor and the applicable map adjustment factor, plus the "Estimated Operating Costs per Hour", to which the sum of 10 percent will be added.

For equipment not listed in the Rental Rate Blue Book, Volume 1, 2, or 3, the rental rate will be determined by using the rate listed for a similar piece of equipment or by proportioning a rate listed so that the capacity, size, horsepower, and age are properly considered.

For equipment for which there are no comparable in the Rental Rate Blue Book, Volume 1, 2, or 3, the monthly rate shall be reasonable, but not more than 5 percent of the current list price, or invoice, of the equipment. The base hourly rate shall then be determined by dividing the monthly rate by 176 to which the sum of 20 percent will be added. The 20 percent includes adjustments and operating costs.

The rental rate for the foreman's transportation unit will be 7 dollars per hour, to which the sum of 20 percent will be added.

When leased or rented equipment is used on force account work, the hourly rate used in computation of payment will be the leased or rented rate, except that if the leased or rented rate exceeds the rental rate established by the Rental Rate Blue Book, the established rate determined from the Blue Book will apply. In either case, the Estimated Operating Cost per Hour will be added to the appropriate hourly rate to which the sum of 10 percent will be added.

In all cases the "Estimated Operating Cost per Hour" includes all fuel, oil, lubricants, tires, parts, and other operating expendables such as truck and labor assigned to the truck for servicing the equipment.

The rental rates allowed herein include the cost of insurance covering usual insurable risks, including fire and theft. The OWNER will not be liable for losses which can be covered by insurance.

In no instance, however, will the OWNER pay, on a total project basis, equipment costs in excess of the equipment's original invoice cost plus any documented improvements to the piece of equipment. The CONTRACTOR shall furnish to the ENGINEER either original bills and invoices or a certification documenting the equipment's original invoice price plus improvements in any instance which equipment costs are being sought under this Subsection for a period in excess of 30 days.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- 15.1 The date of beginning and the time for completion of the work are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.
- 15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. The CONTRACTOR shall have completed the work on or before the calendar date specified in the CONTRACT DOCUMENTS, or on or before a later date as extended by CHANGE ORDER. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
- 15.3 If the CONTRACTOR finds it impossible for reasons beyond his control to complete the WORK by the date as specified in the CONTRACT DOCUMENTS or as extended by CHANGE ORDER, he may make a written request to the ENGINEER for an extension of time setting forth therein the reasons he believes will justify the granting of his request. Requests for extensions of time shall be filed in writing by the CONTRACTOR with the ENGINEER. The CONTRACTOR'S plea that insufficient time was specified is not a valid reason for extension of time. If the OWNER and ENGINEER find that the WORK was delayed because of

conditions beyond the control and without the fault of the CONTRACTOR, the OWNER may extend the time for completion in such amount as the conditions justify. An appropriate CHANGE ORDER will be issued for the granting of any time extensions and the extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

15.4 Delays caused by weather or season conditions should be anticipated and will be considered as the basis for an extension of time only when the actual number of work days lost exceeds the number of workdays lost each month due to inclement weather as determined by the following schedule:

MONTH	NUMBER OF WORK DAYS LOST DUE TO WEATHER
January	9
February	8
March	8
April	8
May	5
June	5
July	4
August	4
September	5
October	6
November	6
December	8

A work day will be counted as lost if the CONTRACTOR'S efficiency is reduced by more than 50 percent on the critical item under construction at that time. Weekends and Holidays will not be counted as lost work days.

- 15.5 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted through CHANGE ORDER by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.
- 15.5.1 If the CONTRACTOR fails to complete the work within the CONTRACT TIME or extension of time granted by CHANGE ORDER, the OWNER, if satisfied that the CONTRACTOR is carrying the work forward with reasonable progress, may allow him to continue in control of the work. It shall be necessary for the CONTRACTOR to make written application to the OWNER to warrant such continuance. Payments to the CONTRACTOR for work performed and material furnished will be made.
- 15.5.2 For each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS, the amount for liquidated damages as specified in the BID will be deducted from any money due to the CONTRACTOR; provided, however, that the due amount shall be taken of any adjustment of completion dates granted.
- 15.5.3 Permitting the CONTRACTOR to continue and furnish WORK or any part of it after the date or dates of completion fixed for its completion or after which the date or dates to which completion may have been extended will in no way operate as a waiver on the part of the OWNER of any of its rights under the CONTRACT.
- 15.6 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.
- 15.6.1 To any preference, priority or allocation order duly issued by the OWNER.
- 15.6.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather as defined in Section 15.4; and

15.6.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

17. SUSPENSION OF WORK, TERMINATED AND DELAY

17.1 The OWNER may at any time and without cause, suspend the WORK or any portion thereof for a period of not more than ninety (90) days of such further time as agrees upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

17.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or

equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his SURETY a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess shall be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

17.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

17.4 Upon delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus a prorated share of their profit based on an independent audit of their records. The OWNER shall select and pay the auditor and all parties shall make their records available.

17.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days

after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by the arbitrators within sixty (60) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all work executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days notice to the OWNER and the ENGINEER stop the work until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of WORK.

- 17.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessary caused by the failure of the OWNER or ENGINEER.

18. PAYMENTS TO CONTRACTOR

- 18.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER

will, within ten (10) days after receipt of each partial payment estimate either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within thirty (30) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimated. The OWNER shall retain ten percent (10%) of the amount of each payment until final completion and acceptance of all WORK covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty percent (50%) of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five percent (5%) on the current and remaining estimates. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

18.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site. This shall be verified by paid invoices.

18.3 Payment for materials stored offsite will be allowed in the following manner:

- Receipted bills or paid invoices must be presented with the partial pay estimate.
- Certificates of compliance with the specifications and plan details shall be provided with each pay estimate for the material which is paid for.
- Off-site storage area shall be identified and accessible for inspection.
- The price allowed for the stored materials shall not exceed 80% of the price of the delivered materials.
- Payment for unpaid bills will be limited to 40% of the total cost of the material. Upon proof of payment to the supplier for the materials, an additional 40% shall be paid. When the partial payment is made for the materials, such materials shall become the property of the OWNER but this does not relieve the CONTRACTOR of the

responsibility for any loss or damage to such materials until they are incorporated into the work and the work is accepted.

- 18.4 All WORK covered by partial payment made shall thereupon become the sole property of the OWNER, but this provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK upon which payments have been made or the restoration of any damaged WORK, or as a waiver of the right of the OWNER to require the fulfillment of all terms of the CONTRACT DOCUMENTS.
- 18.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.
- 18.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, material men, and furnishes or machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his SURETY, or any third party. In paying an unpaid bill of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment

made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

18.7 Sales tax on all material shall be paid for by the Contractor. The cost of the tax shall be passed on to OWNER in the appropriate bid items. No separate compensation or waiver will be given for sales tax on this project.

19. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

19.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance Bond and Payment Bonds.

20. CONTRACT SECURITY

20.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNERS with a Performance Bond and a Labor and Material Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the State of Tennessee in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the State of Tennessee in which the WORK is to be performed or is removed

from the list of Surety Companies accepted on Federal Bonds, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums of such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due not shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

21. ASSIGNMENTS

21.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

22. SEPARATE CONTRACTS

22.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

22.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

22.3 If the performance of additional WORK by other CONTRACTORS or the OWNERS is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written

notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefore as provided in Sections 14 and 15.

23. SUBCONTRACTING

23.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty CONTRACTORS.

23.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(S), in excess of fifty percent (50%) of the CONTRACT PRICE, without prior written approval of the OWNER. Assignment of any portion of the work by subcontract must be approved in advance by the OWNER.

23.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

23.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

23.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

24. ENGINEER'S AUTHORITY

24.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT

DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

24.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspection may be made at the factory or fabrication plant of the source of material supply.

24.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

24.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

25. LAND AND RIGHTS-OF-WAYS

25.1 Prior to insurance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.

25.2 The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

25.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

26. GUARANTEE

26.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will

give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR shall fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period. This section does not preclude any stated material or workmanship warranties otherwise stated in the contract and bidding documents.

26.2 Nothing in the above intends or implies that this guarantee shall apply to work which has been abused or neglected by the OWNER.

SUPPLEMENTAL GENERAL CONDITIONS

1. CONTRACT CHANGES

Any proposed change in this contract shall be submitted to the County of Robertson (Springfield, TN) for its prior approval.

2. GOVERNMENT INSPECTION

The government shall have access to the site of construction and shall have the right to inspect all project works.

3. NOTICE TO ROBERTSON COUNTY OF LABOR DISPUTES

Whenever the contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the contractor shall immediately give notice thereof, including all relevant information with respect thereto, to THE COUNTY.

4. CONVICT LABOR

In connection with the performance of work under this contract the contractor agrees not to employ any person undergoing sentence of imprisonment at hard labor. This does not include convicts who are on parole or probation.

6. OWNERSHIP OF DOCUMENTS

ROBERTSON COUNTY will retain ownership of all plans, specifications, and related documents.

7. PROTEST PROCEDURES

Protests concerning these instructions, the contract requirements, the specifications, the bidding procedures or the contract award, or any other request for explanation or clarification shall be submitted in writing and will include the following information:

1. The name of the protester;
2. The name and telephone number of the protester's contract person having responsibility; and
3. A complete statement of the ground of the protest with full documentation of the protester's claim.

Protests regarding the bid documents, specifications, instructions, or bidding procedure must be received by ROBERTSON COUNTY not less than ten (10) working days before the scheduled bid opening. Protest involving the award of the bid must be received by ROBERTSON COUNTY no later than five (5) working days after notification of the award of the bid.

8. REQUESTS

Requests for approved equals, clarification of specifications and protest of specifications must be received by ROBERTSON COUNTY, in writing, not less than ten (10) days before the scheduled bid opening. Any request for an approved equal or protest of the specifications must be fully supported with all necessary technical data, test results, or other pertinent information. ROBERTSON COUNTY's replies to requests will be postmarked at least five (5) days before the scheduled bid opening. The supplier must demonstrate the equality of his product to ROBERTSON COUNTY in order that ROBERTSON COUNTY may determine whether the supplier's product is or is not equal to that specified.

DETAILED SPECIFICATIONS

All Items of Work, Reference Standards, Measurements and Payments, and Shop Drawings shall be in strict accordance with Plans attached herein and according to the latest version of **Standard Specifications for Road and Bridge Construction of the Tennessee Department of Transportation**, unless noted otherwise in the Plans, which are referenced herein and made a part thereof. All questions related to the Contract Proposal, Plans or Specifications shall be directed to the Engineer. Information received from other persons or offices shall be strictly advisory.

(Specification Attached by Reference)

END OF SECTION

Construction Plans

(attached and dated April 17, 2019)

TRUCK SCALE SYSTEM UPGRADE FOR THE TRANSFER FACILITY AT ROBERTSON COUNTY SOLID WASTE & RECYCLING ROBERTSON COUNTY APRIL 2019

CSR
Engineering
CSR Engineering, Inc.
1116 Main Street
Pleasant View, TN 37146
P: 615.212.2389
F: 615.246.3815
www.csrengineers.com



TITLE SHEET
TRUCK SCALE SYSTEM UPGRADE
FOR THE
TRANSFER FACILITY
AT THE
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY FARM RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



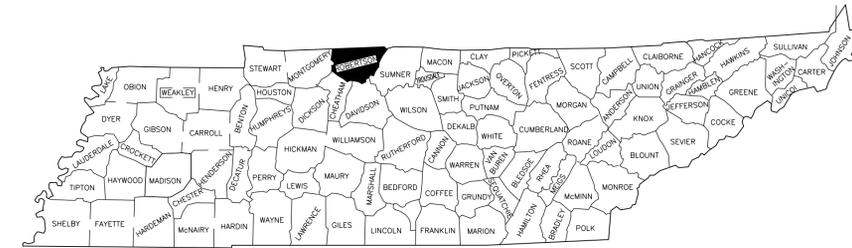
NO.	DATE	BY	DESCRIPTION

DESIGNER DRO
REVIEWER JLR

PROJECT 18-142

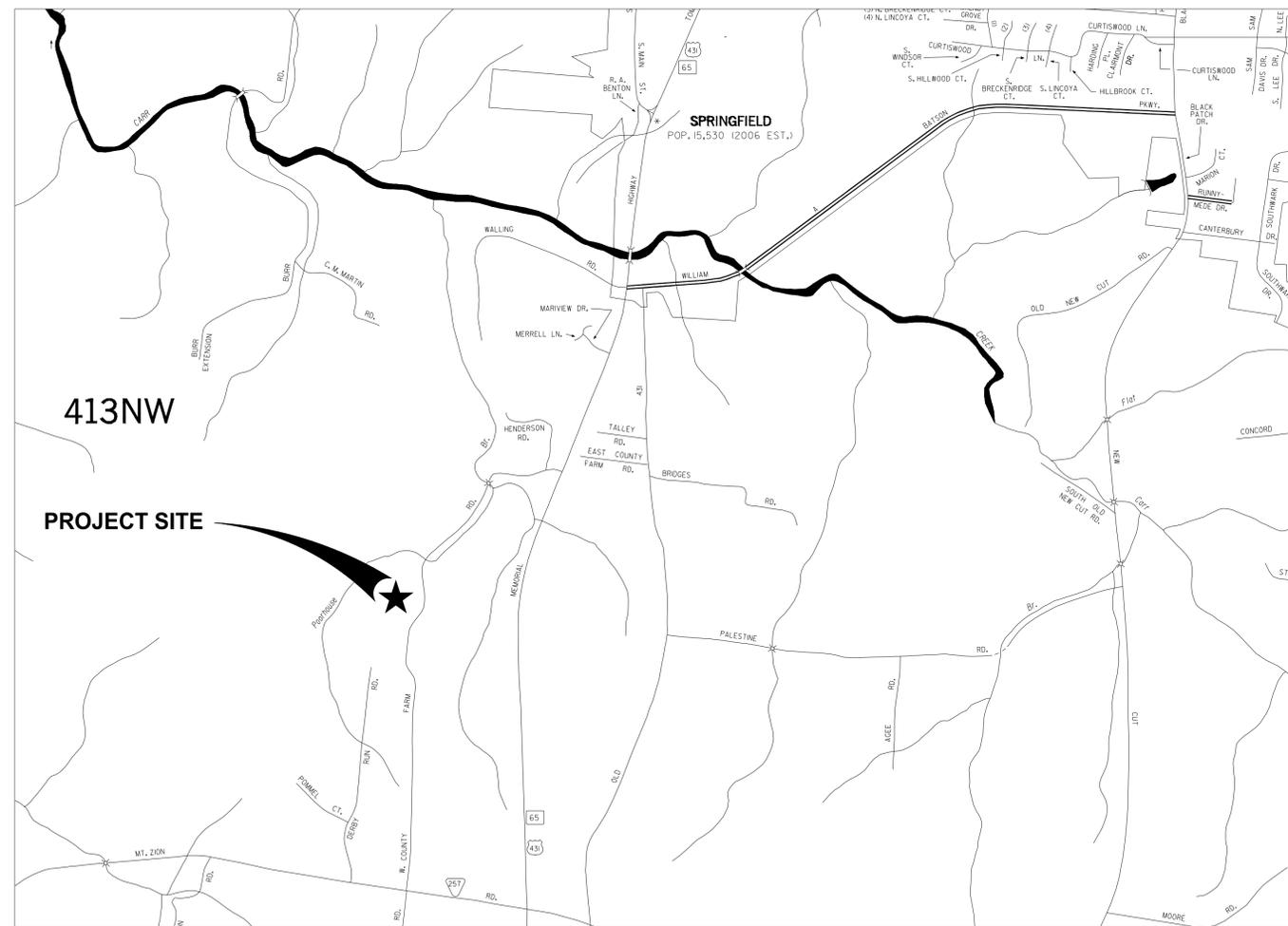
DATE 4-17-19

SHEET G-1



INDEX OF DRAWINGS

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G-1	TITLE SHEET
G-2	GENERAL NOTES AND ESTIMATED QUANTITIES
C-1	EXISTING SITE AND DEMOLITION PLAN
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C-3	GRADING PLAN
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A-1	SCALE HOUSE PLAN AND ELEVATIONS
A-2	SCALE HOUSE - STRUCTURAL



LOCATION MAP

UTILITY OWNERS	
NATURAL GAS UTILITY SERVICE	
SPRINGFIELD GAS DEPARTMENT 1311 R. W. GORDON DRIVE, SPRINGFIELD TN (615) 382-2200	
WATER SERVICE	
SPRINGFIELD WATER DEPARTMENT 824 CENTRAL AVE, SPRINGFIELD, TN (615) 382-1600	
SANITARY SEWER SERVICE	
SPRINGFIELD WASTEWATER DEPT 824 CENTRAL AVE, SPRINGFIELD, TN (615) 382-1600	
ELECTRIC SERVICE	
CUMBERLAND ELECTRIC MEMBERSHIP CORPORATION 1201 5TH AVE NORTH, SPRINGFIELD, TN (615) 384-5566	



TRUCK SCALE NOTES

1. PART 1 - GENERAL

1.1. SCOPE. THIS SECTION SETS FORTH THE REQUIREMENTS FOR ONE ABOVE-GRADE TRUCK SCALE. THE SCALE SHALL BE FURNISHED AND INSTALLED COMPLETE AS SPECIFIED IN THE FOLLOWING PARAGRAPHS, INCLUDING PLATFORM, FOUNDATION, LOAD CELLS, INSTRUMENTS, SURGE VOLTAGE PROTECTION SYSTEM, AND THE SERVICES OF THE MANUFACTURER'S SERVICE REPRESENTATIVE.

1.1.1. ACCEPTABLE MANUFACTURER. THE TRUCK SCALES FURNISHED UNDER THIS SECTION SHALL BE MANUFACTURED BY FAIRBANKS, METTLER TOLEDO, RICE LAKE, CARDINAL OR APPROVED EQUAL.

1.2. GENERAL. EQUIPMENT FURNISHED AND INSTALLED UNDER THIS SECTION SHALL BE ASSEMBLED, ERECTED, AND PLACED IN PROPER OPERATING CONDITION IN FULL CONFORMITY WITH DRAWINGS, SPECIFICATIONS, ENGINEERING DATA, INSTRUCTIONS, AND RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER UNLESS EXCEPTIONS ARE NOTED BY THE ENGINEER.

1.2.1. GENERAL EQUIPMENT STIPULATIONS. THE GENERAL EQUIPMENT STIPULATIONS SHALL APPLY TO ALL EQUIPMENT FURNISHED UNDER THIS SECTION.

1.2.2. GOVERNING STANDARDS. THE SCALE SYSTEMS SHALL HAVE BEEN ISSUED A CERTIFICATE OF CONFORMANCE BY THE NATIONAL TYPE EVALUATION PROGRAM, (N.T.E.P.) AND SHALL CONFORM TO THE FOLLOWING FEDERAL, STATE, LOCAL, AND INDUSTRIAL STANDARDS.

- NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST), HANDBOOK 44, "SPECIFICATIONS, TOLERANCES, AND TECHNICAL REQUIREMENTS FOR WEIGHING AND MEASURING DEVICES".
- APPLICABLE STATE REGULATIONS FOR COMMERCIAL WEIGHING DEVICES.
- AMERICAN WELDING SOCIETY AWS D1.1, 2006.
- WEIGHBRIDGE STRUCTURAL STEEL AND STRUCTURAL STEEL EMBEDMENTS SHALL CONFORM TO ASTM A36.
- FOUNDATION REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40 OR 60.

1.0.1. ANCHOR BOLTS. ALL ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE MADE OF CARBON STEEL OR COMPARABLE, AND MAY BE PLATED.

1.0.2. EDGE GRINDING. SHARP PROJECTIONS OF CUT OR SHEARED EDGES OF FERROUS METALS, WHICH ARE NOT TO BE WELDED, SHALL BE GROUND AS REQUIRED TO ENSURE PAINT ADHERENCE.

1.0.3. SURFACE PREPARATION. ALL FERROUS METAL SURFACES, EXCEPT STAINLESS STEEL OR PLATED STEEL, SHALL BE BLAST CLEANED IN THE SHOP IN ACCORDANCE WITH THE PAINT MANUFACTURER'S RECOMMENDATIONS. ALL MILL SCALE, RUST, AND CONTAMINANTS SHALL BE COMPLETELY REMOVED BEFORE SHOP PRIMER IS APPLIED. THE COMPONENTS OF EACH MODULE SHALL BE CLEANED TO AN SSPC-SP6 FINISH PRIOR TO PAINTING.

1.0.4. SHOP PAINTING. ALL STEEL SURFACES, EXCEPT STAINLESS STEEL OR PLATED STEEL, SHALL BE COATED WITH A PPG AUE-370 HIGH SOLIDS ACRYLIC URETHANE, A TWO COMPONENT CHEMICALLY CROSS-LINKED COMMERCIAL COATING SYSTEM. THE PAINT SYSTEM WILL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS. SEE ATTACHED DATA SHEET.

ADDITIONAL FIELD PAINTING OTHER THAN TOUCHUP PAINTING OF DAMAGED SURFACES WILL NOT BE REQUIRED.

1.0.5. POWER SUPPLY. UNLESS OTHERWISE SPECIFIED, THE POWER SUPPLY TO THE EQUIPMENT WILL BE A DEDICATED 120 VOLT, SINGLE PHASE, 60 HZ CONNECTION. WHERE CONTROL VOLTAGES LOWER THAN THE POWER SUPPLY VOLTAGE IS REQUIRED, SUITABLE CONTROL POWER TRANSFORMERS SHALL BE FURNISHED.

1.0.6. SURGE VOLTAGE PROTECTION. THE SCALE SYSTEM SHALL BE SURGE AND LIGHTNING PROTECTED. THIS PROTECTION SHALL INCLUDE A SURGE PROTECTION DEVICE WHICH PLUGS INTO A STANDARD 115 VAC OUTLET. THE LOAD CELLS SHALL BE OPTICALLY ISOLATED, AND SURGE PROTECTED. THE SCALE SHALL HAVE A DUAL POINT GROUND ROD SYSTEM FOR THE GROUNDING OF THE WEIGHBRIDGE, POWER SUPPLY, AND THE SECTIONAL CONTROLLERS. ELECTRICAL DIAGRAMS OF THE SCALE GROUNDING AND SURGE PROTECTION SHALL BE SUPPLIED WITH SUBMITTALS. THE SURGE VOLTAGE PACKAGE SHALL BE PROVIDED AS A UNIT AND BE TESTED AND APPROVED BY THE SCALE MANUFACTURER.

SURGE PROTECTION DEVICES OR COMPONENTS NOT DESIGNED OR TESTED BY THE SCALE MANUFACTURER AS A UNIT ARE UNACCEPTABLE.

1.1. SUBMITTALS. COMPLETE FOUNDATION AND INSTALLATION DRAWINGS, TOGETHER WITH DETAILED SPECIFICATIONS AND DATA COVERING MATERIALS, PARTS, DEVICES, AND ACCESSORIES FORMING A PART OF THE EQUIPMENT FURNISHED, SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. DRAWINGS SHALL COVER ALL SCALE COMPONENTS, FOUNDATION DETAILS, AND PIER LOADING INFORMATION NECESSARY FOR THE DESIGN OF THE SCALE FOUNDATION OR INSTALLATION.

2.1. SCALE DESIGN

2.1.1. GENERAL DESCRIPTION. THE SCALE SHALL BE A ABOVE-GRADE, FULLY-ELECTRONIC TRUCK SCALE WITH CONCRETE DECK. SCALE SHALL BE A "FLAT TOP" DESIGN AND NOT REQUIRE SIDE BEAMS ABOVE THE SURFACE OF THE DECK. EQUIPMENT IS TO CONSIST OF PARTS DESIGNED TO ACT AS A UNIT BY A MANUFACTURER EXPERIENCED IN DESIGN, CONSTRUCTION, MANUFACTURE OF ELECTRONIC COMPONENTS, AS WELL AS OPERATION OF EQUIPMENT FOR THE PURPOSE REQUIRED.

2.1.2. SCALE CAPACITY. THE N.T.E.P. APPROVED SCALE SHALL HAVE A MINIMUM CAPACITY OF 100,000 LBS.

2.1.3. SCALE EMIN. THE N.T.E.P. APPROVED SCALE SHALL HAVE AN EMIN (AS DEFINED BY NIST HB 44) APPROVAL OF 10 LBS. THE CURRENT NTEP CERTIFICATE OF CONFORMANCE SHALL BE PROVIDED AS PART OF THE PROJECT DOCUMENTATION PACKAGE TO SUPPORT THIS APPROVAL.

2.1.4. WEIGHBRIDGE DESIGN. THE PLATFORM SHALL BE "SEE PLANS" FEET LONG AND "SEE PLANS" FEET WIDE AND BE COMPRISED OF 12" CONCRETE DECK REINFORCED BY 6" STRUCTURAL STEEL WIDE FLANGE BEAM STRINGERS WHICH RUN THE FULL LENGTH OF EACH MODULE. SIDE BEAMS SHALL BE STRUCTURAL STEEL MEMBERS HAVING NELSON STUDS ATTACHED TO THE INTERNAL SIDES OF EACH BEAM TO CREATE A COMPOSITE CONNECTION BETWEEN THE CONCRETE AND THE STEEL. BOTTOM PLATES OF THE MODULE WILL BE 1/4" SMOOTH PLATE TO WHICH THE ABOVE MENTIONED STRUCTURAL STEEL STRINGERS WILL BE WELDED. SCALE SHALL NOT REQUIRE ACCESS PLATES ON DECK SURFACE TO SERVICE LOAD CELLS OR JUNCTION BOXES. REMOVABLE COVER PLATES ARE NOT ACCEPTABLE ON DECK SURFACE.

THE MAXIMUM DEFLECTION FOR LEGAL HIGHWAY LOADS SHALL NOT EXCEED 1/1300TH OF SPAN AND THE BENDING STRESS IN ANY MEMBER SHALL NOT EXCEED 20,000 PSI AT THE RATED CLC OF 100,000 LBS.

2.1.5. CHECKING. THE SCALE SHALL UTILIZE LONGITUDINAL AND LATERAL BUMPER CHECKING. THE SCALE SHALL BE COMPLETELY SELF-CHECKING. NO CHECK RODS OR FLEXURE CHECKING PLATES ARE TO BE USED. CHECKING SHALL BE MECHANICALLY ISOLATED FROM THE LOAD CELL AND LOAD CELL STANDS/BASE PLATES.

2.1.6. LOAD CELL AND CONTROLLER/JUNCTION BOX SPECIFICATIONS. THE SCALE SHALL HAVE ROCKER COLUMN LOAD CELLS. EACH ROCKER COLUMN LOAD CELL SHALL HAVE A MINIMUM GROSS RATED CAPACITY OF 110,000 LBS EACH. THE LOAD CELLS SHALL BE CONSTRUCTED OF STAINLESS STEEL AND SHALL BE COMPLETELY HERMETICALLY SEALED TO PREVENT MOISTURE FROM ENTERING THE CELL. LOAD CELLS SHALL BE NITROGEN FILLED TO RETARD INTERNAL CORROSION. LOAD CELLS SHALL MEET THE FOLLOWING SPECIFICATIONS:

LOAD CELL CONSTRUCTION: STAINLESS STEEL
 MINIMUM CAPACITY: 100,000 LBS
 PROTECTION: NEMA 6P/IP69K
 INSULATION RESISTANCE (MEGOHMS): ≥5000
 OPERATING TEMPERATURE: -40 TO 203^oF (-40 TO 95^oC)
 TEMPERATURE EFFECT ON SENSITIVITY (%/°C): ≤ 0.0007%
 SAFE LOAD LIMIT (% OF CAPACITY): 200%
 NTEP ACCURACY CLASS: IIII, 10,000 DIVISIONS

THE LOAD CELL SHALL HAVE AN AVAILABLE 25 YEAR WARRANTY.

THE LOAD CELL SHALL BE PROVIDED WITH A SHIELDED, 4 CONDUCTOR CABLE WITH A POLYURETHANE JACKET. LOAD CELL CABLING SHALL BE PROTECTED BY A STAINLESS STEEL BRAIDED ARMOR TO PROTECT AGAINST ABRASION OR RODENT DAMAGE. LOAD CELL CABLES MUST BE HARD WIRED TO THE LOAD CELL.

THE SCALE SHALL HAVE SELF DIAGNOSTIC CAPABILITIES ABLE TO IDENTIFY LOAD CELL PROBLEMS, FAILURE, AND PREDICT FAILURE BEFORE IT OCCURS TO PREVENT DOWNTIME. ALL TROUBLE SHOOTING SHALL BE DONE FROM WITHIN THE SCALE HOUSE.

2.2. PLATFORM AND FOUNDATION REQUIREMENTS. THE WEIGHBRIDGE AND LOAD CELL ASSEMBLIES SHALL BE SUPPORTED BY A REINFORCED CONCRETE PIER TYPE FOUNDATION AS INDICATED ON THE DRAWINGS. THE DIMENSIONS FOR THE SCALE FOUNDATION AND PLATFORM SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER AND ACCEPTED BY THE ENGINEER. REINFORCING STEEL PLACEMENT AND STRUCTURAL STEEL EMBEDMENT PLACEMENT SHALL BE PERFORMED AS SHOWN ON THE MANUFACTURER'S FOUNDATION DRAWINGS.

THE SCALE MANUFACTURER SHALL FURNISH THE FOLLOWING ITEMS FOR CONSTRUCTION OF THE SCALE PLATFORMS:

- WEIGHBRIDGE MODULES
- LONGITUDINAL AND LATERAL BUMPER CHECKING DEVICES
- LOAD CELLS AND LOAD CELL ASSEMBLIES
- ANCHOR BOLTS
- PLATFORM AND ENDWALL PAINTED STRUCTURAL STEEL EMBEDMENTS

3. PART 3 - EXECUTION

3.1. INSTALLATION. THE SCALE SHALL BE MANUFACTURED, PROVIDED, AND INSTALLED BY A SCALE COMPANY THAT HAS A MINIMUM OF FIVE YEARS OF EXPERIENCE INSTALLING SIMILAR TRUCK SCALE SYSTEMS.

THE INSTALLER SHALL CONFIGURE THE SCALE SYSTEM AS INDICATED ON THE CERTIFIED DRAWINGS. ALL CONCRETE WORK SHALL BE AS SPECIFIED IN THE CAST-IN-PLACE CONCRETE SECTION. ANCHOR BOLTS SHALL BE SET AS REQUIRED BY THE SCALE MANUFACTURER'S DRAWINGS.

3.2. MANUFACTURER'S FIELD SERVICES. WHERE SCHEDULED IN THE EQUIPMENT SCHEDULE SECTION, AN EXPERIENCED, COMPETENT, AND AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER SHALL PROVIDE FIELD SERVICES FOR EQUIPMENT FURNISHED UNDER THIS SECTION. FIELD SERVICES SHALL MEET THE REQUIREMENTS OF MANUFACTURER'S FIELD SERVICES IN THE QUALITY CONTROL SECTION.

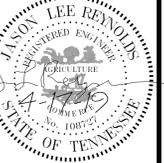
3.3. FIELD TESTING AND ACCEPTANCE. AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE THE REQUIRED SCALE CERTIFICATION FOR CAPACITY AND ACCURACY TO THE ENGINEER AS REQUIRED BY THE APPLICABLE STATE DEPARTMENT OF WEIGHTS AND MEASURES AND ANY OTHER APPLICABLE STATE OR COUNTY AGENCY.

PERSONNEL TRAINING. AN EXPERIENCED, COMPETENT, AND AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER SHALL TRAIN THE OWNER'S PERSONNEL IN OPERATING, MAINTAINING, AND REPAIRING THE EQUIPMENT SPECIFIED IN THIS SECTION. THE TRAINING PROVIDED SHALL MEET THE REQUIREMENTS OF PERSONNEL TRAINING SERVICES IN THE QUALITY CONTROL SECTION AS PROVIDED BY THE MANUFACTURER. THE NUMBER OF TRAINING SESSIONS AND DURATION OF EACH SESSION SHALL BE AS SCHEDULED IN THE EQUIPMENT SCHEDULE SECTION.

ESTIMATED QUANTITIES		
ITEM	QTY.	UNIT
HEAVY DUTY ASPHALT (INCLUDES PATCHING)	1187	SY
TRUCK SCALES	2	EACH
SCALE HOUSE FOUNDATION	1	LS
SCALE HOUSE AND APPURTENANCES	1	LS
CONCRETE - INCLUDING CRUSHED STONE	94	C.Y.
REINFORCING	9,000	LB
WATER SERVICE (INCLUDE PAVEMENT CUTTING)	310	LF
SEWER SERVICE (INCLUDE PAVEMENT CUTTING)	166	LF
ELECTRIC SERVICE (INCLUDE PAVEMENT CUTTING)	210	LF
CONDUIT FOR DATA SERVICE	375	L.F.
BOLLARDS	10	EACH
DEMOLITION (CONCRETE AND ASPHALT REMOVAL)	1	LS
DOUBLE GATE INSTALLATION AND FENCE REPAIR	1	LS
18 INCH CMP	40	LF
RE-ESTABLISH DITCH DRAINAGE	200	LF
FLAGMAN	60	DAYS



GENERAL NOTES AND ESTIMATED QUANTITIES
 TRUCK SCALE SYSTEM UPGRADE
 TRANSFER FACILITY
 ROBERTSON COUNTY SOLID WASTE & RECYCLING
 WEST COUNTY PARK RD.
 SPRINGFIELD, TN 37172
 ROBERTSON COUNTY



NO.	DATE	BY	DESCRIPTION

DESIGNER DKH
 REVIEWER JLR

PROJECT 18-142

DATE 4-17-19

SHEET G-2





GRADING PLAN
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY FARM RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



REVISIONS	
NO.	DESCRIPTION

DESIGNER **DKH**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **C-3**

ROBERTSON COUNTY
MAP 104
PARCEL 76.00
90.20 AC.
RECORD BOOK 195, PAGE 54.
R.O.C.C.

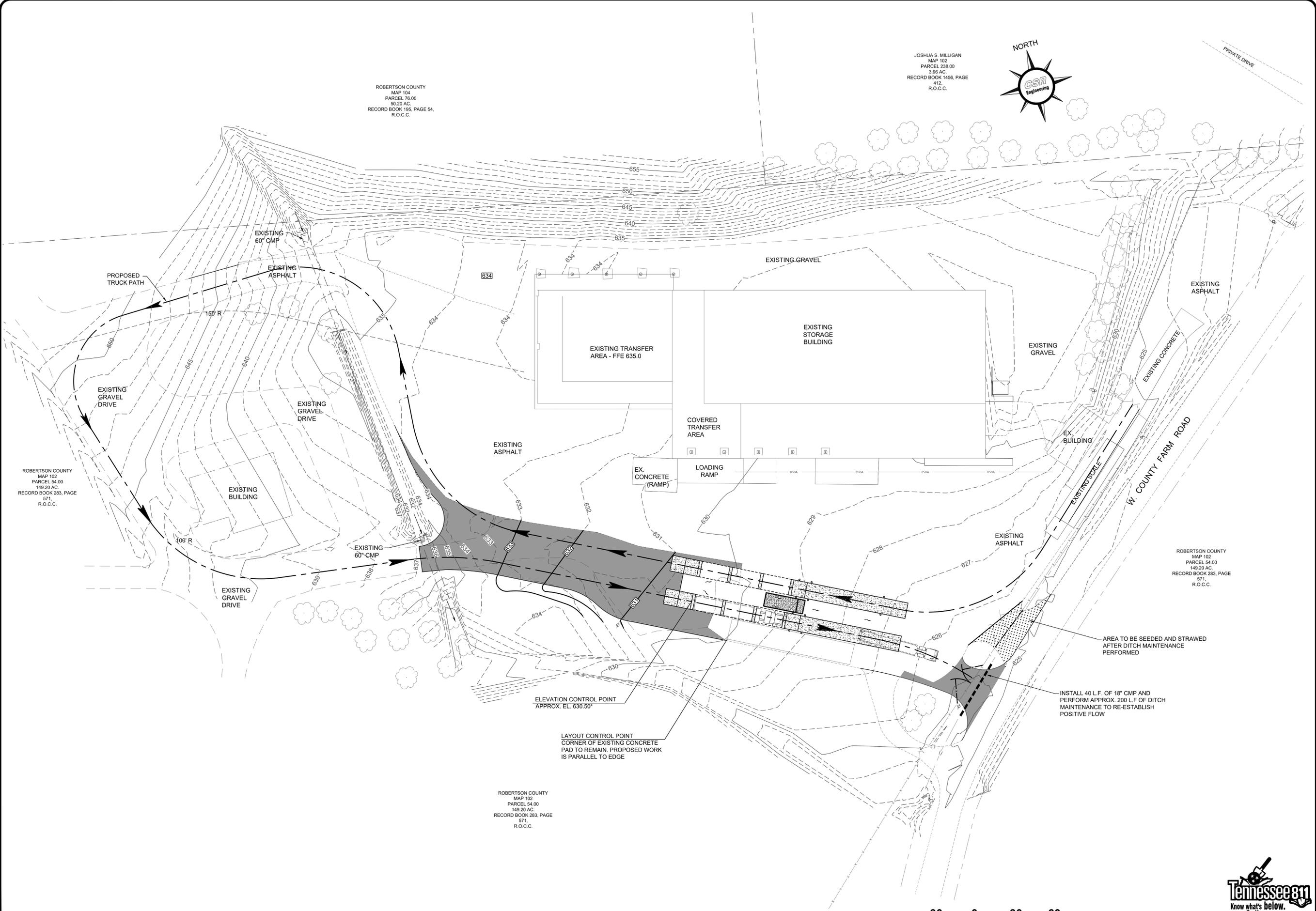
JOSHUA S. MILLIGAN
MAP 102
PARCEL 238.00
3.96 AC.
RECORD BOOK 1456, PAGE
412.
R.O.C.C.



ROBERTSON COUNTY
MAP 102
PARCEL 54.00
149.20 AC.
RECORD BOOK 283, PAGE
571.
R.O.C.C.

ROBERTSON COUNTY
MAP 102
PARCEL 54.00
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RECORD BOOK 283, PAGE
571.
R.O.C.C.

ROBERTSON COUNTY
MAP 102
PARCEL 54.00
149.20 AC.
RECORD BOOK 283, PAGE
571.
R.O.C.C.

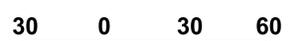


ELEVATION CONTROL POINT
APPROX. EL. 630.50'

LAYOUT CONTROL POINT
CORNER OF EXISTING CONCRETE
PAD TO REMAIN. PROPOSED WORK
IS PARALLEL TO EDGE

AREA TO BE SEEDED AND STRAWED
AFTER DITCH MAINTENANCE
PERFORMED

INSTALL 40 L.F. OF 18" CMP AND
PERFORM APPROX. 200 L.F. OF DITCH
MAINTENANCE TO RE-ESTABLISH
POSITIVE FLOW



PURPOSE FOR ISSUE: **BIDDING** **SCALE: 1"=30'**





UTILITY PLAN
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



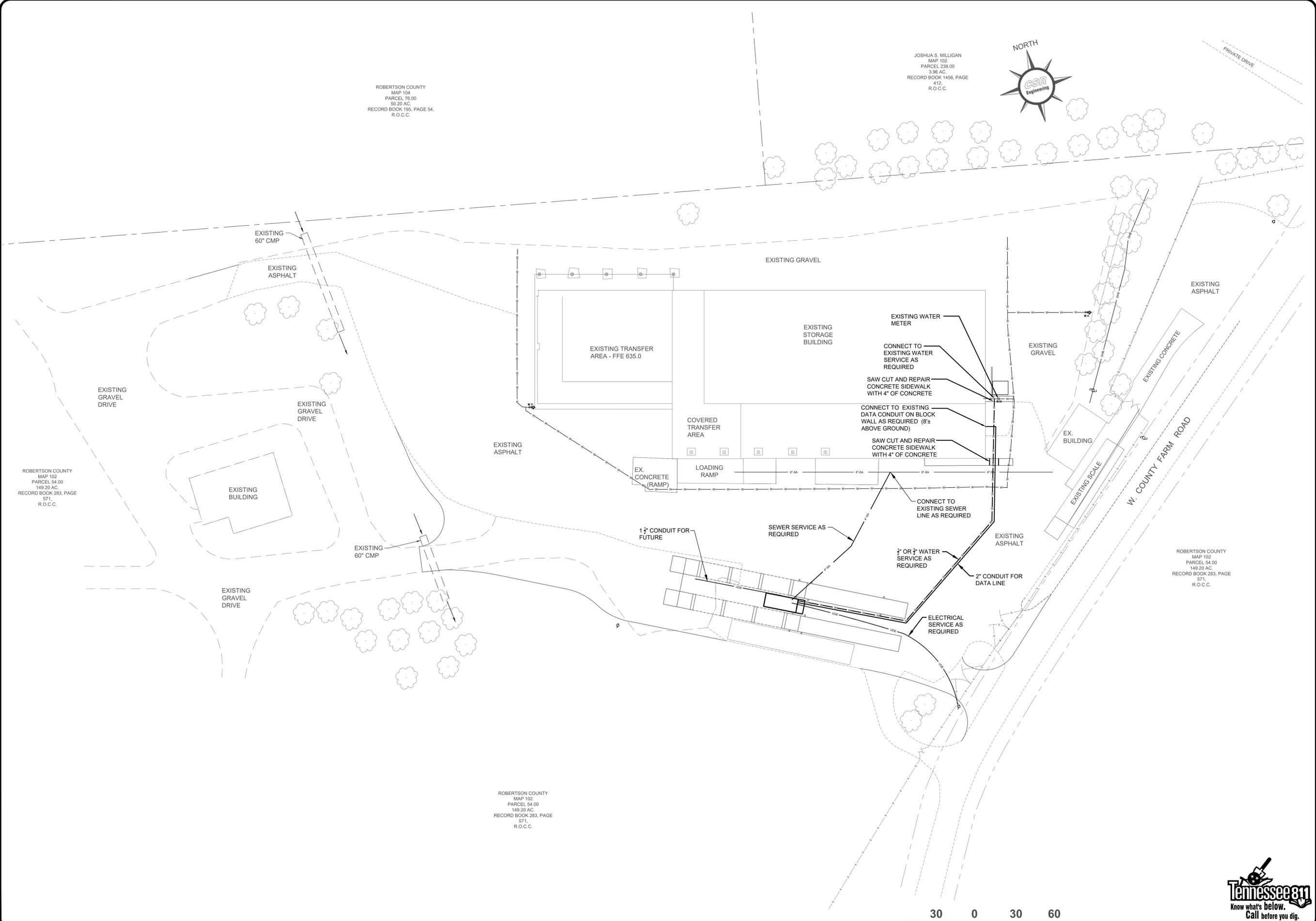
REVISIONS	
NO.	DESCRIPTION

DESIGNER **DKH**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **C-4**



ROBERTSON COUNTY
MAP 104
PARCEL 76.00
59.20 AC.
RECORD BOOK 195, PAGE 54,
R.O.C.C.

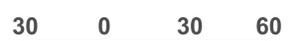
JOSHUA S. MILLIGAN
MAP 102
PARCEL 238.00
3.96 AC.
RECORD BOOK 1456, PAGE
412,
R.O.C.C.



ROBERTSON COUNTY
MAP 102
PARCEL 54.00
149.20 AC.
RECORD BOOK 283, PAGE
571,
R.O.C.C.

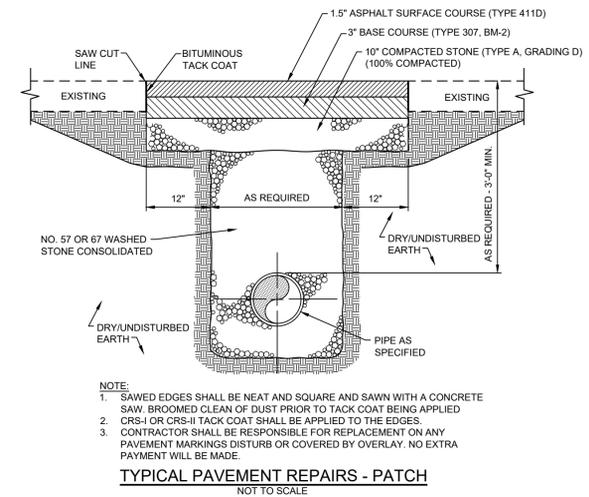
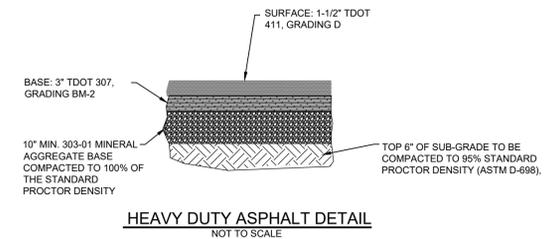
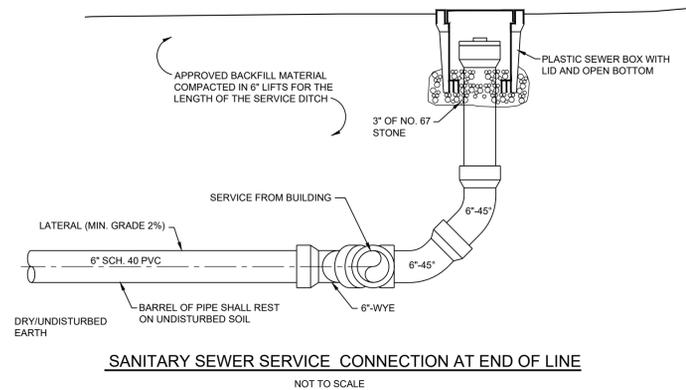
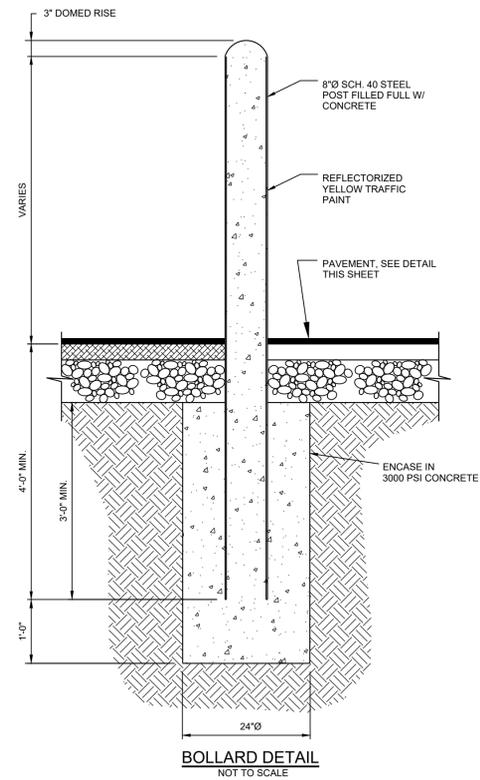
ROBERTSON COUNTY
MAP 102
PARCEL 54.00
149.20 AC.
RECORD BOOK 283, PAGE
571,
R.O.C.C.

ROBERTSON COUNTY
MAP 102
PARCEL 54.00
149.20 AC.
RECORD BOOK 283, PAGE
571,
R.O.C.C.



PURPOSE FOR ISSUE: **BIDDING** SCALE: **1"=30'**





- NOTE:
1. SAWED EDGES SHALL BE NEAT AND SQUARE AND SAWN WITH A CONCRETE SAW. BROOMED CLEAN OF DUST PRIOR TO TACK COAT BEING APPLIED.
 2. CRS-1 OR CRS-11 TACK COAT SHALL BE APPLIED TO THE EDGES.
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT ON ANY PAVEMENT MARKINGS DISTURB OR COVERED BY OVERLAY. NO EXTRA PAYMENT WILL BE MADE.



NO.	DATE	BY	DESCRIPTION

DESIGNER **DKH**
 REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **C-5**





TRUCK SCALE PLAN AND PROFILE
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



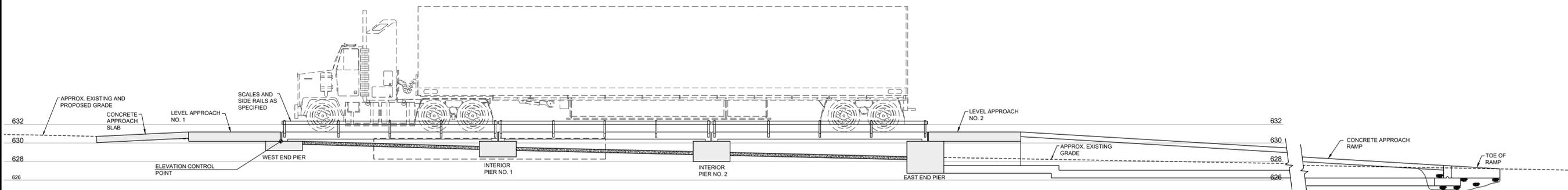
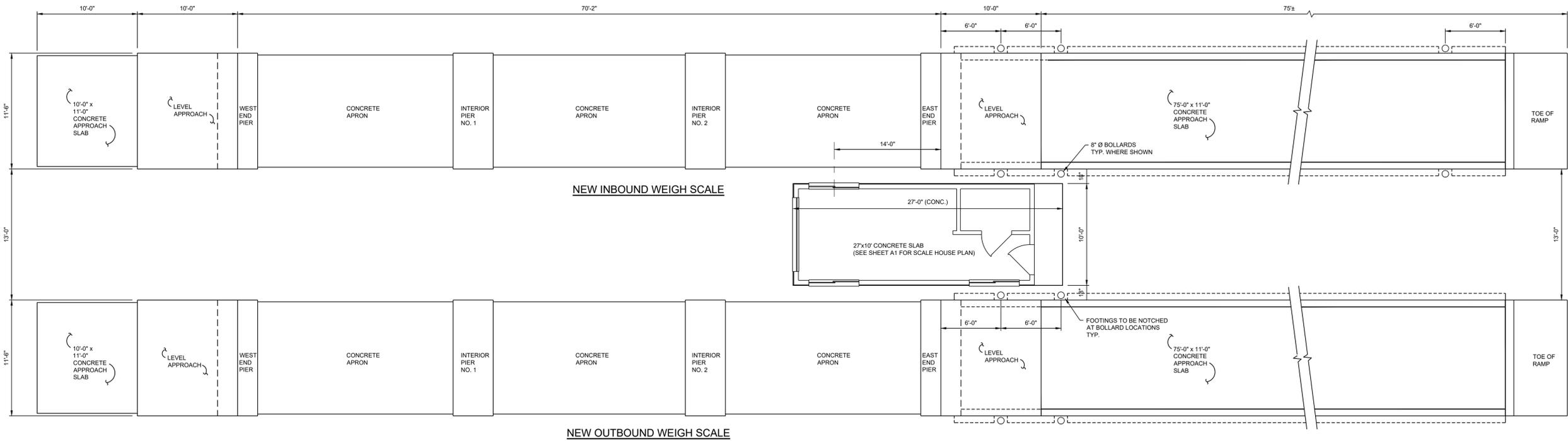
NO.	DATE	BY	DESCRIPTION

DESIGNER **DKH**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **S-1**



TRUCK SCALES - PROFILE
SCALE: 3/16"=1' HOR.
SCALE: 3/16"=1' VERT.

CONSTRUCTION NOTE:
FOUNDATION ELEVATION CONTROL POINT IS RELATIVE AS SHOWN AND SHALL CONTROL ALL OTHER INFRASTRUCTURE ELEVATIONS. ANY SHIFT IN SCALE LOCATION SHALL BE APPROVED BY THE OWNER WITH CHANGE IN ELEVATION TIE-INS VERIFIED BY THE CONTRACTOR.

**THIS SHEET SHOWN FOR BIDDING PURPOSES ONLY-FOUNDATIONS WILL VARY PER MANUFACTURER TRUCK SCALES BY :
METTLER TOLEDO, FAIRBANKS SCALES, RICE LAKE WEIGHING SYSTEMS, CARDINAL OR APPROVED EQUAL**





TRUCK SCALE SECTIONS
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



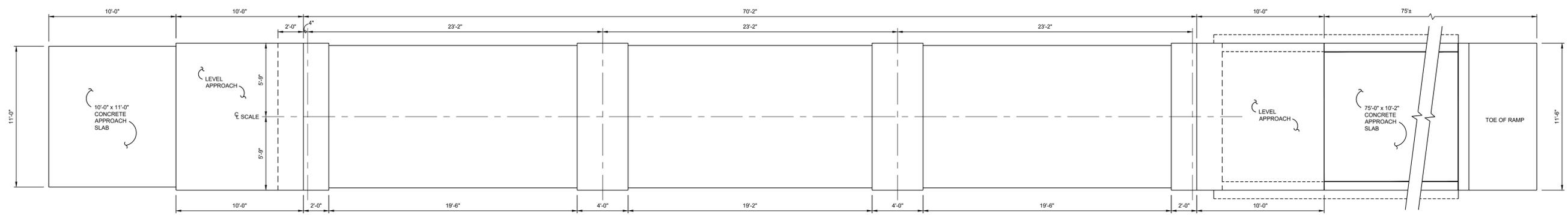
NO.	DATE	BY	DESCRIPTION

DESIGNER **DKH**
REVIEWER **JLR**

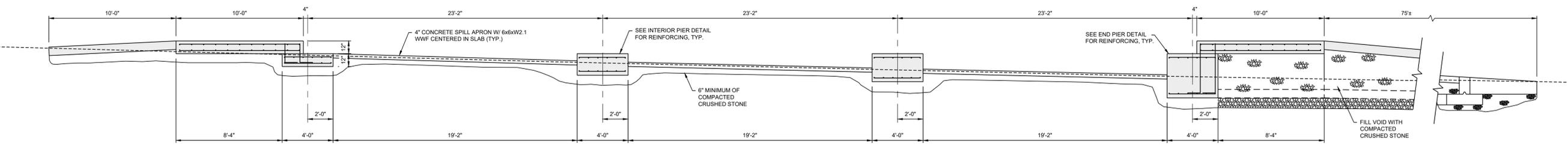
PROJECT **18-142**

DATE **4-17-19**

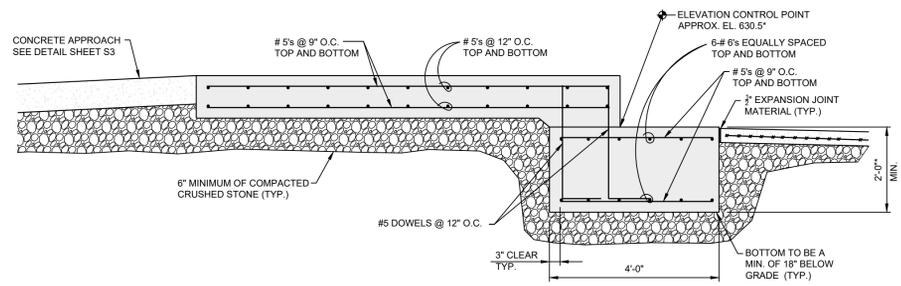
SHEET **S-2**



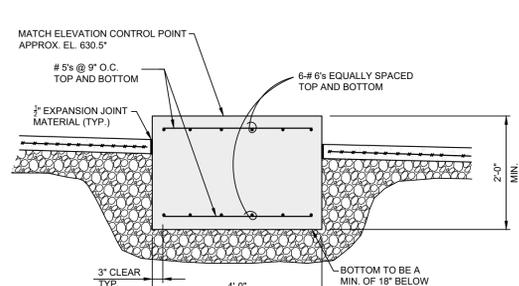
PLAN OF SCALE FOUNDATION



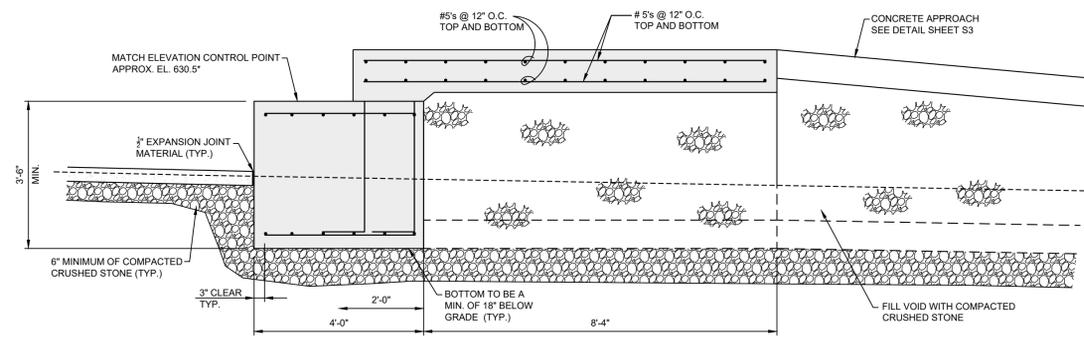
SECTION THRU SCALE FOUNDATION



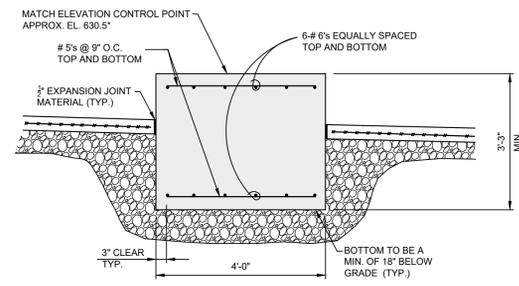
WEST END PIER DETAIL
SCALE: 1/2" = 1'-0"



INTERIOR PIER NO. 1 DETAIL
SCALE: 1/2" = 1'-0"



EAST END PIER DETAIL
SCALE: 1/2" = 1'-0"



INTERIOR PIER NO. 2 DETAIL
SCALE: 1/2" = 1'-0"

CONSTRUCTION NOTE:
FOUNDATION ELEVATION CONTROL POINT IS RELATIVE AS SHOWN AND SHALL CONTROL ALL OTHER INFRASTRUCTURE ELEVATIONS. ANY SHIFT IN SCALE LOCATION SHALL BE APPROVED BY THE OWNER WITH CHANGE IN ELEVATION TIE-INS VERIFIED BY THE CONTRACTOR.

ESTIMATED QUANTITIES PER SCALE - 2 REQUIRED		
	CONCRETE C.Y.	REINFORCING POUNDS
WEST END PIER	6	503
INTERIOR PIER NO. 1	3	252
INTERIOR PIER NO. 2	4	252
EAST END PIER	10	503
SPILL APRONS	3	

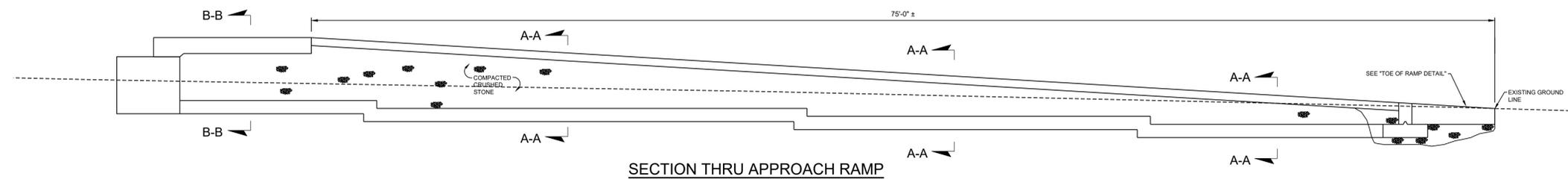
CRUSHED STONE = APPROX. 40 TONS

THIS SHEET SHOWN FOR BIDDING PURPOSES ONLY-FOUNDATIONS WILL VARY PER MANUFACTURER TRUCK SCALES BY : METTLER TOLEDO, FAIRBANKS SCALES, RICE LAKE WEIGHING SYSTEMS, CARDINAL OR APPROVED EQUAL

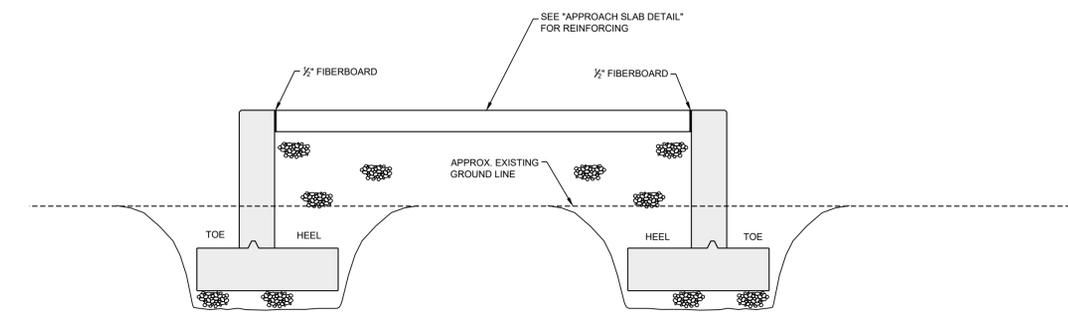




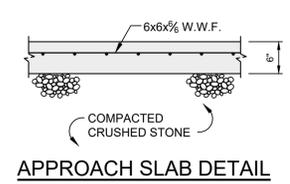
TRUCK SCALE SECTIONS
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



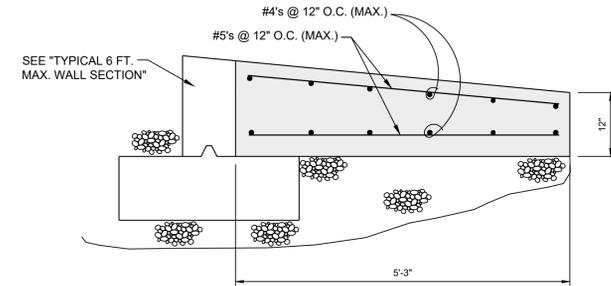
SECTION THRU APPROACH RAMP



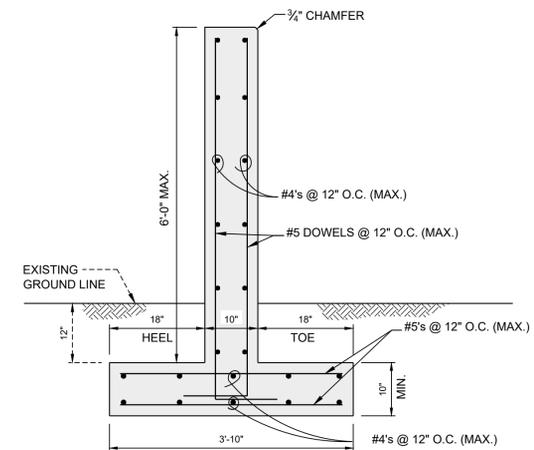
SECTION A-A



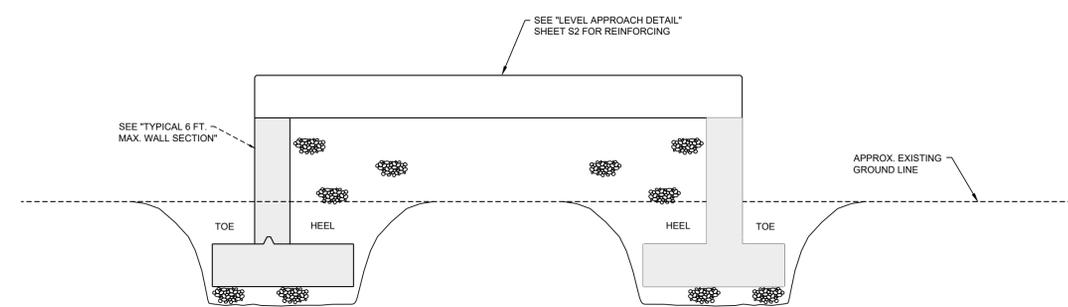
APPROACH SLAB DETAIL



TOE OF RAMP DETAIL



TYPICAL 6' MAX. WALL SECTION



SECTION B-B

ESTIMATED QUANTITIES		
	CONCRETE C.Y.	REINFORCING POUNDS
TOE OF RAMP	3	200
WALL FOOTINGS	20.5	3,500
WALLS	12	2,200
APPROACH SLAB	14	

CRUSHED STONE = APPROX. 150 TONS

REVISIONS	
NO.	DESCRIPTION

DESIGNER DKH
REVIEWER JLR

PROJECT 18-142

DATE 4-17-19

SHEET S-3



GENERAL NOTES:

- EACH TRADE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCING WORK. THE OWNER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE WORK PROCEEDING.
- DO NOT SCALE THE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE DESIGNER PRIOR TO RESUMING OR STARTING WORK.
- ALL WORK PERFORMED ON THIS STRUCTURE SHALL MEET TENNESSEE STATE BUILDING CODES, THE NATIONAL ELECTRIC CODE, AND ORDINANCES OF THE LOCAL JURISDICTION.
- THERE SHALL BE NO BUILDING MATERIALS CONTAINING ASBESTOS OR OTHER HAZARDOUS MATERIALS INSTALLED AT THIS SITE.
- ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- THE DESIGN, ADEQUACY AND THE SAFETY OF ALL SHORING, TEMPORARY SUPPORTS, ERECTION BRACING, ETC., IS THE RESPONSIBILITY OF THE CONTRACTOR.
- THE MECHANICAL, ELECTRICAL, FRAMING, AND CONCRETE CONTRACTORS SHALL COORDINATE THE LOCATION ALL APPURTENANCES
- ALL GRADES SHALL BE SLOPED AWAY FROM THE BUILDING AT LEAST 1/8" PER FOOT.

STRUCTURAL NOTES:

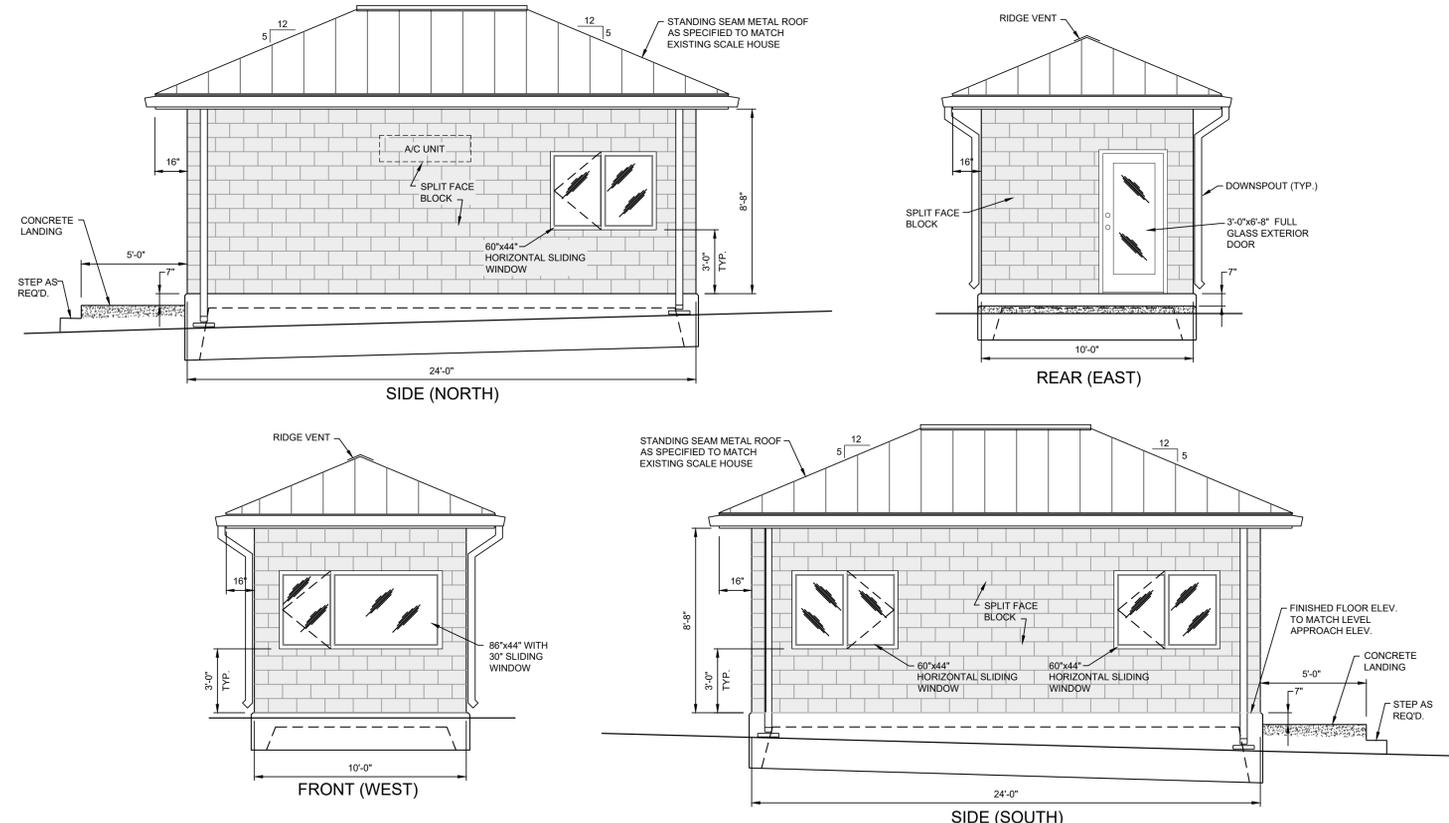
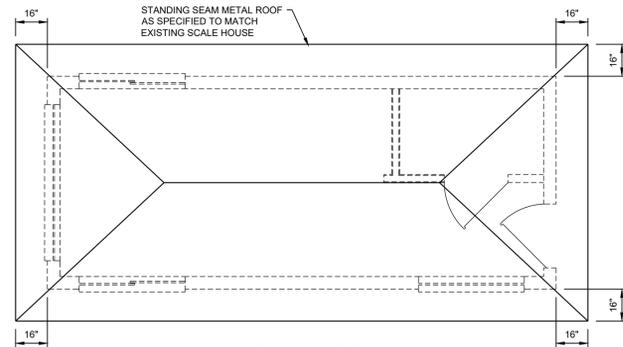
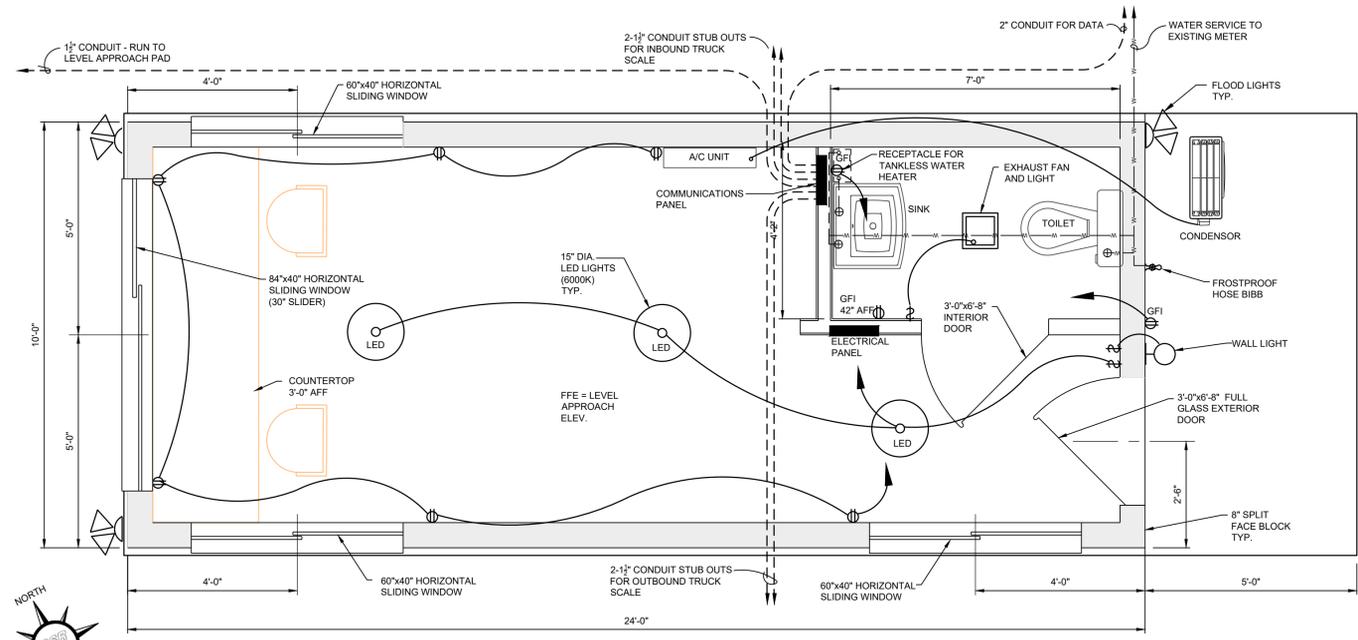
- DESIGN LOADS ARE:

	LL (PSF)	DL (PSF)
FLOOR	40	20
ROOF	20	15
- SOIL BEARING CAPACITY: 2500 PSF ASSUMED. VERIFY W/ ENGINEER IF CONDITIONS VARY
- BUILDING CODE: IBC 2012
- TIMBER SHALL BE #2 SYP OR BETTER UNLESS NOTED OTHERWISE
- CONCRETE SHALL BE 3,000 PSI AT 28 DAYS.
- INSULATION:

CEILING:	R-30
2x4 WALLS:	R-13

ELECTRICAL NOTES:

- ELECTRICAL TO MEET LOCAL CODE REQUIREMENTS
- ALL FIXTURES TO BE U.L. LISTED
- ELECTRIC METER SOCKET AND MAIN BREAKER SHALL BE LOCATED IN THE FIELD.
- HVAC CONTRACTOR TO LOCATE AND PROVIDE REQUIRED ELECTRICAL SERVICE.
- SMOKE DETECTORS TO BE LOCATED TO MEET LOCAL CODE REQUIREMENTS



EXTERIOR PAINT COLOR TO MATCH EXISTING SCALE HOUSE
INTERIOR PAINT COLORS TO BE SELECTED BY OWNER

NO.	DATE	BY	DESCRIPTION

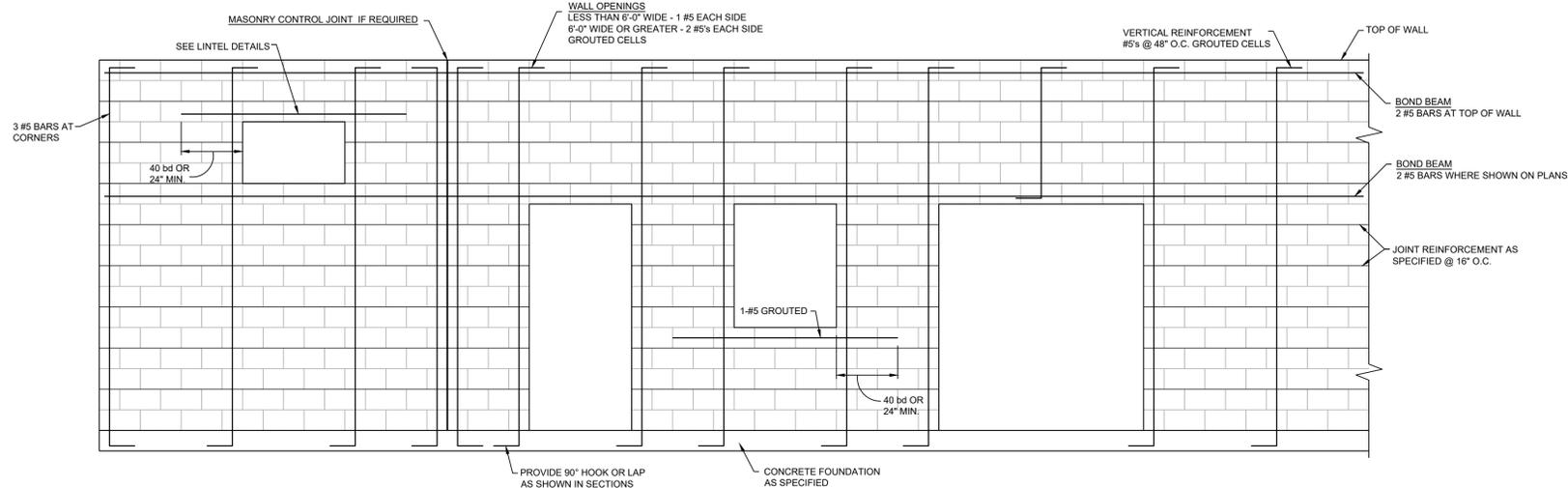
DESIGNER **DKH**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **A-1**

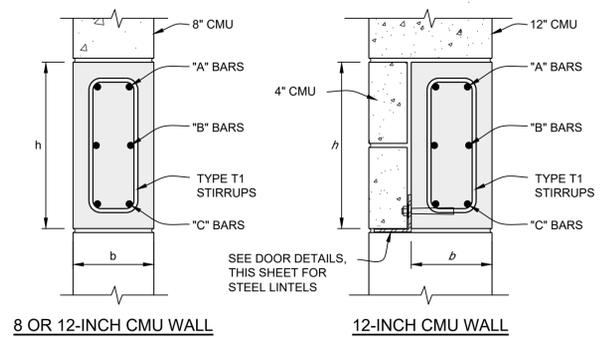




EXTERIOR BLOCK WALL REINFORCING STEEL

GROUTING PROCEDURE

1. CONSTRUCT WALL TO HEIGHT OF 48". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. FILL CELLS TO 1-1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

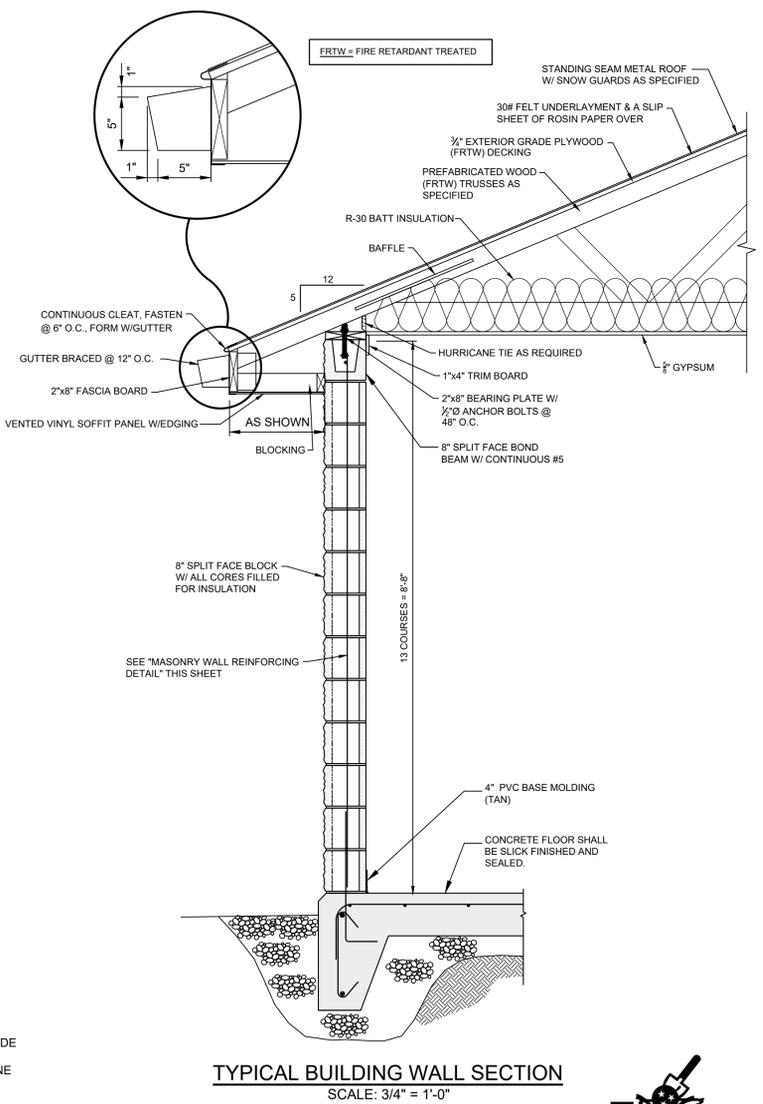


CONCRETE LINTEL SCHEDULE

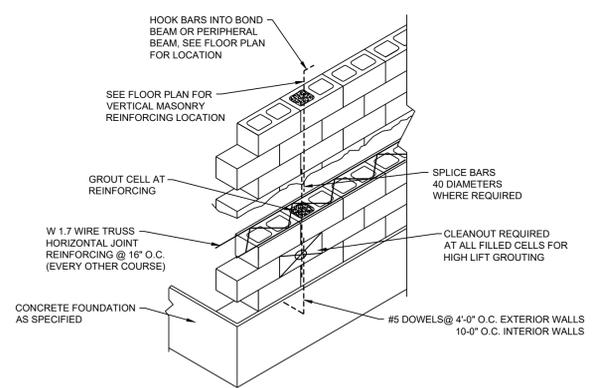
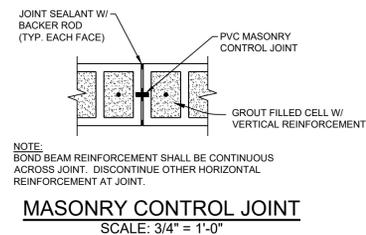
OPENING WIDTH	DIMENSIONS		REINFORCING			
	h	b	A BARS*	B BARS*	C BARS*	STIRRUPS
LESS THAN 3'-10"	7-5/8"	7-5/8" OR 12-5/8"	2-#5's	-	2-#5's	#3's @ 2 1/2" O.C.
4'-0" THRU 7'-0"	15-5/8"	7-5/8" OR 12-5/8"	2-#5's	-	2-#5's	#3's @ 6" O.C.
7'-2" THRU 10'-0"	15-5/8"	7-5/8" OR 12-5/8"	2-#7's	-	2-#7's	#3's @ 6" O.C.
10'-2" THRU 14'-0"	23-5/8"	7-5/8" OR 12-5/8"	2-#7's	2-#5's	2-#7's	#3's @ 6" O.C.

* BARS SHALL HAVE 180° HOOKED ENDS AND SHALL EXTEND NOT LESS THAN 24-INCHES NOR LESS THAN 40 BAR DIAMETERS PAST EACH SIDE OF OPENING.

CONCRETE LINTEL DETAILS
NO SCALE



TYPICAL BUILDING WALL SECTION
SCALE: 3/4" = 1'-0"



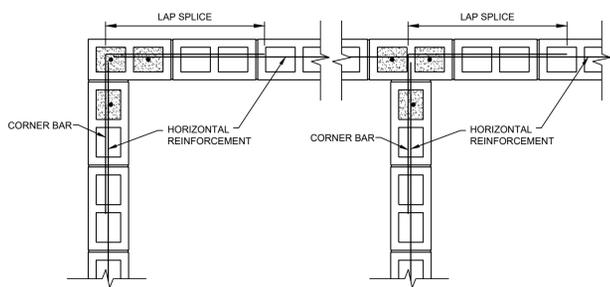
LOW LIFT GROUTING PROCEDURE

1. CONSTRUCT WALL TO HEIGHT OF 4'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. FILL CELLS TO 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

HIGH LIFT GROUTING PROCEDURE

1. CONSTRUCT WALL TO FULL HEIGHT (24 FEET MAXIMUM). ALLOW MASONRY TO CURE AT LEAST 3 DAYS.
2. CLEAN CELLS, WHICH ARE TO BE GROUTED, THROUGH CLEAN-OUT PORTS.
3. PLACE GROUT IN 4 FOOT LIFTS AND CONSOLIDATE AFTER EXCESS MOISTURE HAS BEEN ABSORBED BY MASONRY.
4. PLACE THE NEXT LIFT AS SOON AS POSSIBLE BUT NO LONGER THAN ONE HOUR LATER.

TYPICAL REINFORCED MASONRY DETAIL



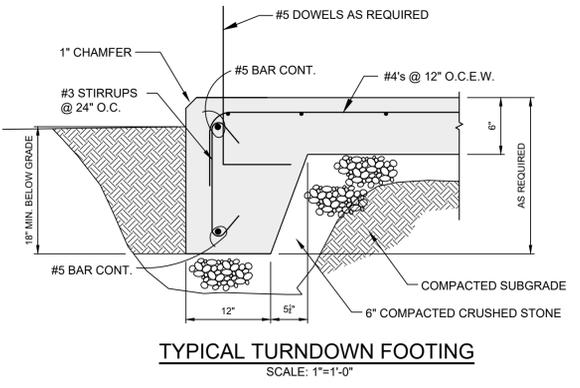
- NOTES**
1. ALL VERTICAL BARS SHALL HAVE HOOKED ENDS AT TOP BOND BEAM.
 2. ALL HORIZONTAL BARS SHALL HAVE HOOKED ENDS AT VERTICAL BARS.
 3. ALL LAP SPLICE LENGTHS SHALL CONFORM TO THE TABLE ON THIS SHEET.

MASONRY REINFORCING AT CORNERS AND INTERSECTIONS
SCALE: 3/4" = 1'-0"

ESTIMATED QUANTITIES

	CONCRETE C.Y.	REINFORCING POUNDS
BUILDING SLAB	19	
LANDING	0.75	

CRUSHED STONE = APPROX. 9 TONS



TYPICAL TURNDOWN FOOTING
SCALE: 1" = 1'-0"



SCALE HOUSE - STRUCTURAL TRUCK SCALE SYSTEM UPGRADE
FOR THE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.,
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



REVISIONS

NO.	DATE	BY	DESCRIPTION

DESIGNER **DKH**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

SHEET **A-2**

