



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: **May 14, 2019**

BID 1418 (Scales Only): SCALES FOR TRAFFIC FLOW IMPROVEMENT PROJECT for SOLID WASTE

Pre-Bid Meeting: No pre-bid meeting scheduled

Sealed bids must be received by: **MAY 22nd, 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. 1418 (Scales Only) 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.

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 22, 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 (Scales Only) 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 (Scales Only) 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 (adjusted by Engineer for any materials lead time considerations). 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 they are 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
TRUCK SCALES	2	EA		
CONCRETE (INC. STONE BASE & REINFORCING STEEL— FOUNDATIONS & RAMPS)	1	LS		

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.)

BID FORM CONT'D

ADD ALTERNATE

25+ year warranty added to Truck Scale, Load Cell Warranty	2	EA		
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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 (Scales Only).

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 (Scales Only).
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 April 17, 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 (Scales Only).

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 (Scales Only).

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 two (2) 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 (Scales Only), 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 (Scales Only)

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 (Scales Only)

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

(Scales Only)

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 (Scales Only)

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 (Scales Only)

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): _____

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)

Modifications to the Construction Plans & Specifications:

Item #1

Issue: 2.1.3 Emin requirement vs. 10,000 divisions limit.

Revision: A 10-lbs increment is doable for scale capacity up to 100,000. If the bidder submits a scale with capacity above that which is required in the plans, it is acceptable to have an increased readout increment to prevent noncompliance with NTEP requirements for maximum divisions.

Item #2

Issue: 2.1.4 deck design clarification.

Revision: Orthotropic concrete deck design will be acceptable in addition to current requirement. Also, the thicknesses of the deck and the deflection allowed in the deck may be modified to manufacture specifications so long as the CLC requirements and NTEP specifications are maintained as stated in the bid documents. Last, the requirement for side access installation and service of load cells is revised to allow top (deck plate) access with no other modifications to deck loading requirements.

Item #3

Issue: 1.0.6 load cell optically isolated

Revision: Depending on the load cell construction, surge voltage protection may vary by manufacturer. This section of requirements concerning the optical isolation shall be revised to allow varied surge voltage protection so long as the modification is to the scale manufacturer's recommendation and fully compliant with the required manufacturer's warranties.

Item #4

Issue: 2.1.5 Load cell checking clarification

Revision: We understand that each manufacturer has a specific design to their load cells and consequently provides varied approaches to checking design. This section shall be revised to allow each manufacturer to offer their specific checking design. The checking method proposed shall be one that allows individual load cell checking (not composite system only) and provide information in enough specificity to identify potential load cell issues prior to complete failure.

Item #5

Issue: 2.1.6 Load cell design specifications and warranty

Revision: The style of load cell design as rocker column is waived. No revisions occur to the minimum capacity or NTEP accuracy class. The dust/water hermetic seal shall not be less than IP66. Each bidder shall supply the subsequent specification information for other categories as supplied by the scales manufacturer. The minimum warranty for the load cell is revised to 5 years. Each bidder shall also include an add alternate for supplying a scale system including a 25+ year warranty on the load cells.

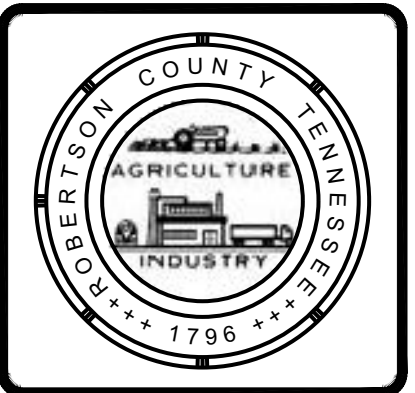
Item #6

Issue: 1.0.4 Paint coating specification

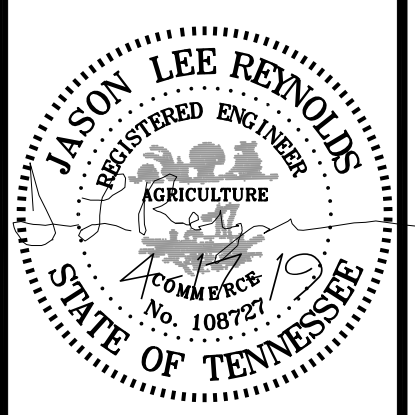
Revision: Section shall be revised to comply with the scale manufacturer's recommended paint/coating scheme. The requirement for field painting other than touch up to damaged surfaces shall remain.

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



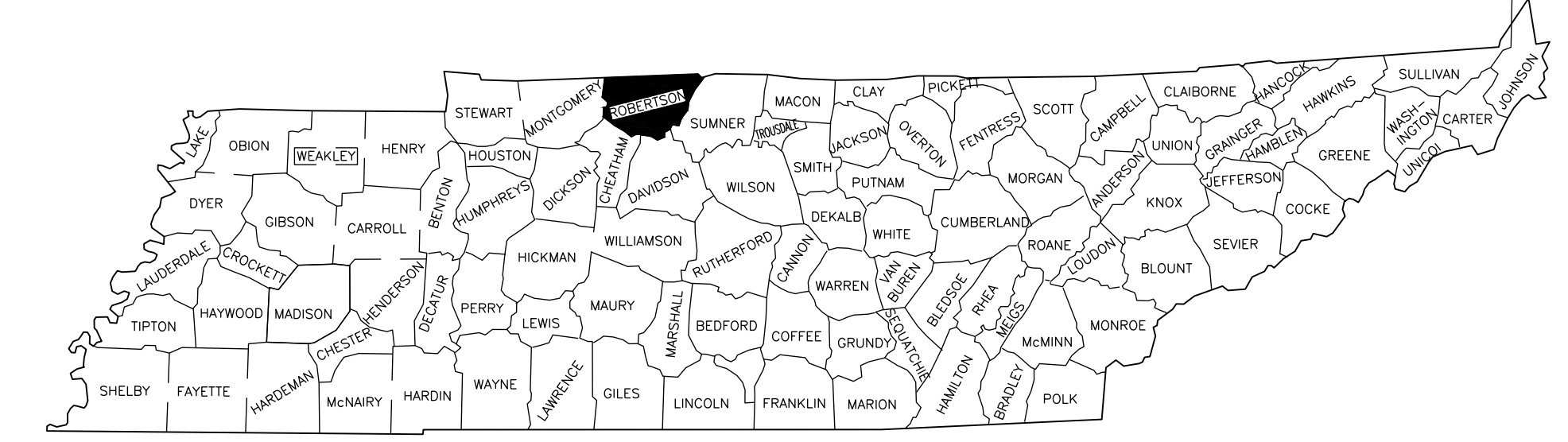
NO.	DATE	BY	DESCRIPTION

DESIGNER **DRO**
REVIEWER **JLR**

PROJECT **18-142**

DATE **4-17-19**

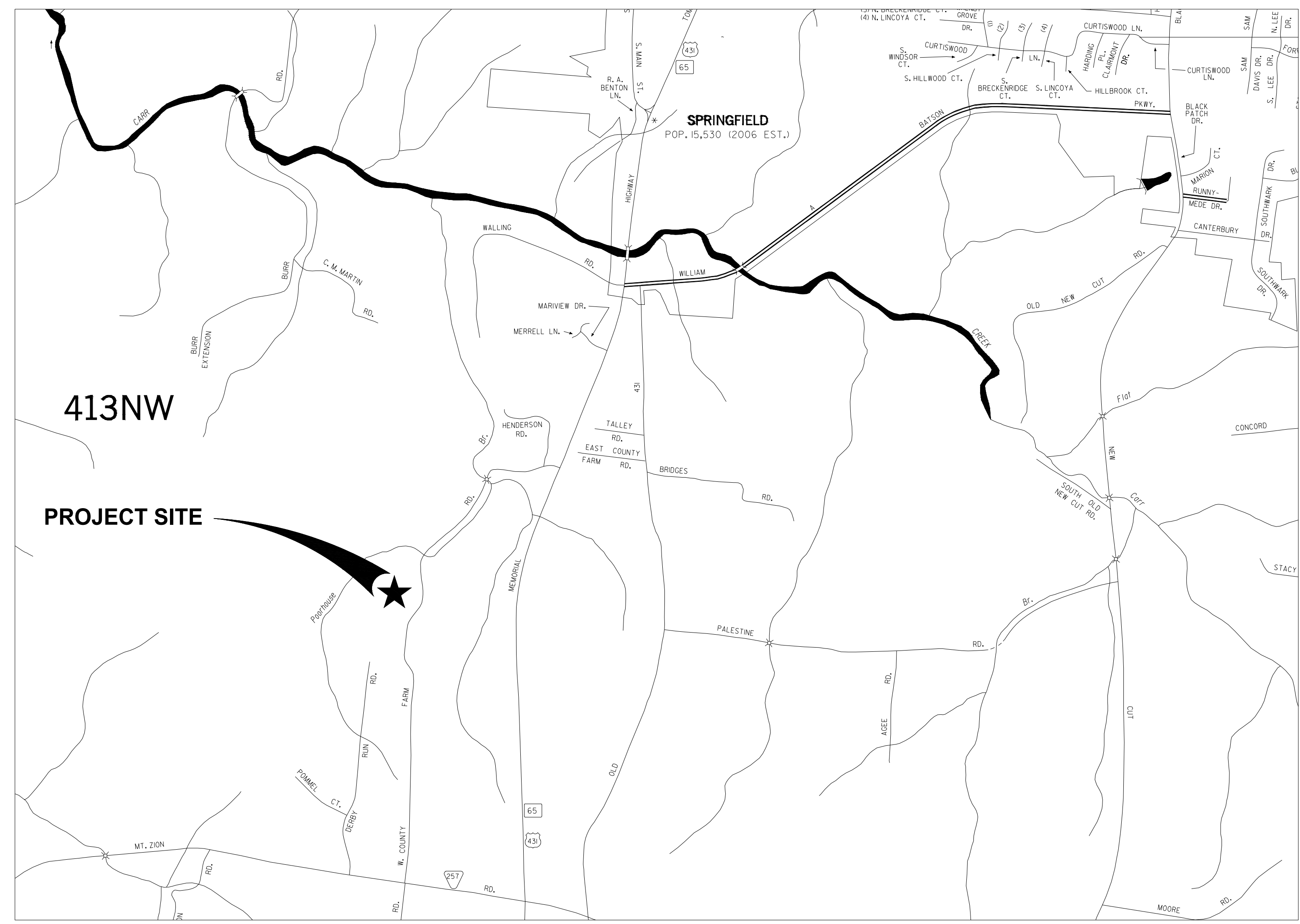
SHEET **G-1**



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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



LOCATION MAP



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: IIIIL, 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.

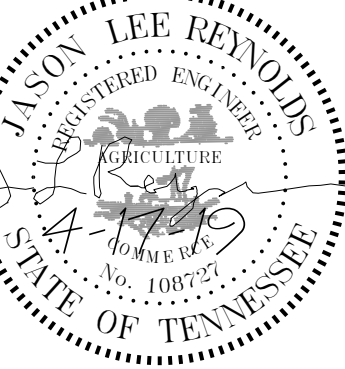
PERSONNEL TRAINING. AN EXPERIENCED, COMPETENT, AND AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER SHALL TRAIN THE OWNER'S PERSONNEL IN OPERATING, MAINTAINING, AND REPAIRING THE EQUIPMENT SPECIFIED IN THIS SECTION. THE TRAINING PROVIDED SHALL MEET THE REQUIREMENTS OF PERSONNEL TRAINING SERVICES IN THE 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)	1167	SY
TRUCK SCALES	2	EACH
SCALE HOUSE FOUNDATION	1	LB
SCALE HOUSE AND APPURTENANCES	1	LB
CONCRETE - INCLUDING CRUSHED STONE	94	C.Y.
REINFORCING	9,000	LB
WATER SERVICE (INCLUDE PAVEMENT CUTTING)	340	LF
SEWER SERVICE (INCLUDE PAVEMENT CUTTING)	166	LF
ELECTRIC SERVICE (INCLUDE PAVEMENT CUTTING)	210	LF
CONDUIT FOR DATA SERVICE	375	LF
BOLLARDS	10	EACH
DEMOLITION (CONCRETE AND ASPHALT REMOVAL)	1	LB
DOUBLE GATE INSTALLATION AND FENCE REPAIR	1	LB
18 INCH CMP	40	LF
RE-ESTABLISH DITCH DRAINAGE	200	LF
FLAGMAN	66	DAYS

SCOPE OF WORK UNDER THIS CONTRACT SHALL INCLUDE SCALES AND APPROACH RAMPS ONLY. ITEMS IN THESE DOCUMENTS ARE INTENDED FOR SPECIFICATION REQUIREMENTS AND ALL QUANTITY ITEMS ARE ESTIMATES ONLY.



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

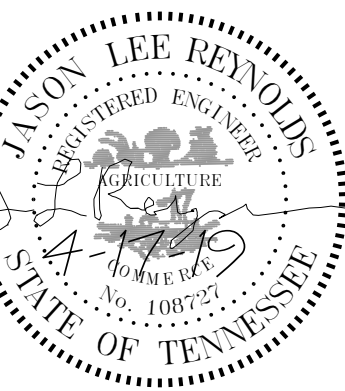
DATE 4-17-19

SHEET G-2





SITE 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**

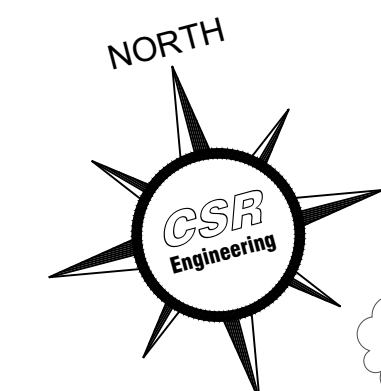
PROJECT **18-142**

DATE **4-17-19**

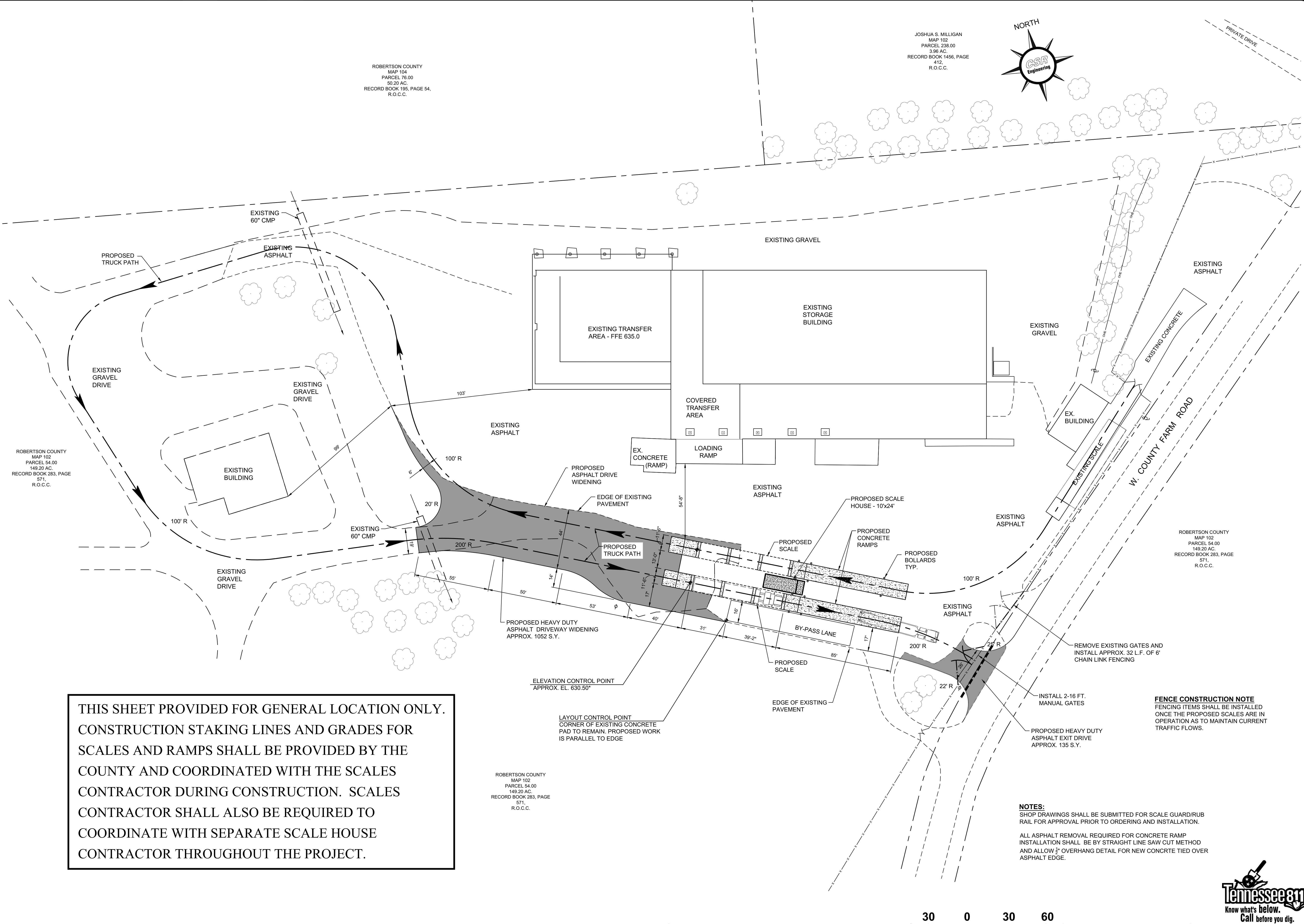
SHEET **C-2**

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

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



PRIVATE DRIVE



THIS SHEET PROVIDED FOR GENERAL LOCATION ONLY. CONSTRUCTION STAKING LINES AND GRADES FOR SCALES AND RAMPS SHALL BE PROVIDED BY THE COUNTY AND COORDINATED WITH THE SCALES CONTRACTOR DURING CONSTRUCTION. SCALES CONTRACTOR SHALL ALSO BE REQUIRED TO COORDINATE WITH SEPARATE SCALE HOUSE CONTRACTOR THROUGHOUT THE PROJECT.

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.

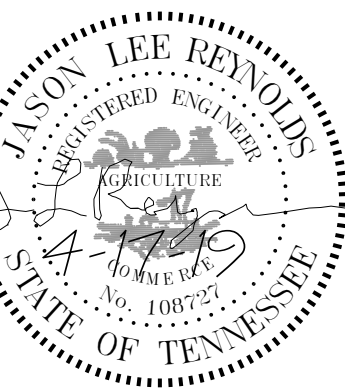
NOTES:
SHOP DRAWINGS SHALL BE SUBMITTED FOR SCALE GUARD/RUB RAIL FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION.
ALL ASPHALT REMOVAL REQUIRED FOR CONCRETE RAMP INSTALLATION SHALL BE BY STRAIGHT LINE SAW CUT METHOD AND ALLOW 3" OVERHANG DETAIL FOR NEW CONCRETE TIED OVER ASPHALT EDGE.

FENCE CONSTRUCTION NOTE
FENCING ITEMS SHALL BE INSTALLED ONCE THE PROPOSED SCALES ARE IN OPERATION AS TO MAINTAIN CURRENT TRAFFIC FLOWS.





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



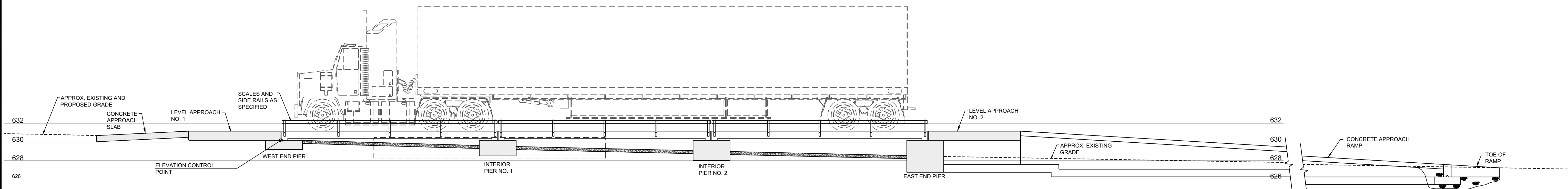
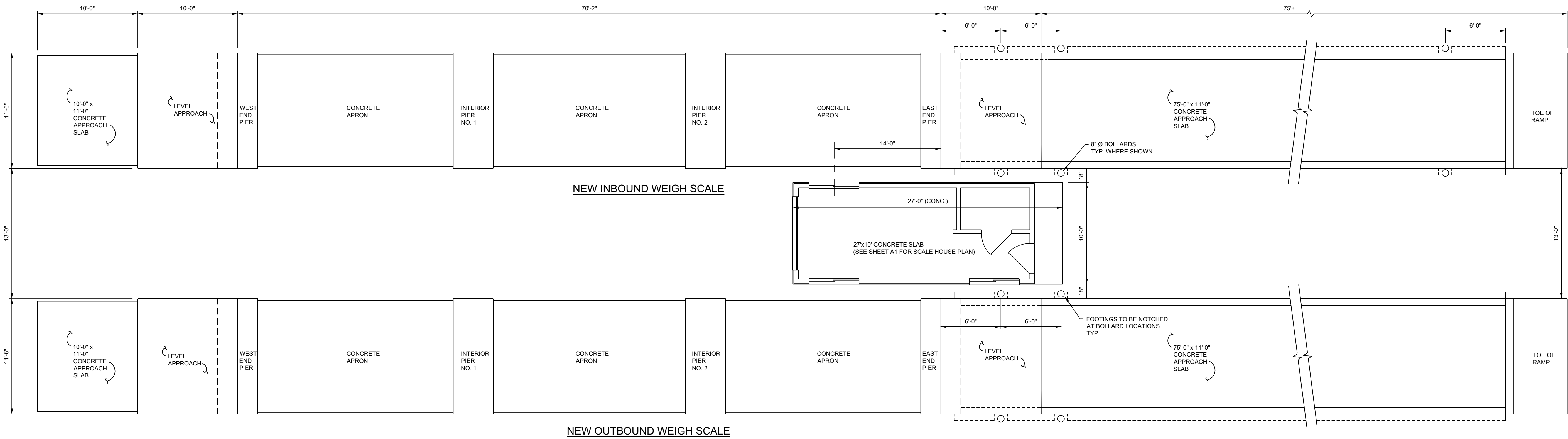
NO.	DATE	BY	DESCRIPTION

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.

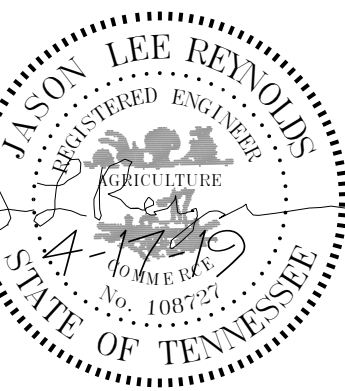
CONSTRUCTION NOTE:
FOUNDATION ELEVATION CONTROL POINT IS RELATIVE AS SHOWN AND SHALL CONTROL ALL OTHER INFRASTRUCTURE ELEVATIONS. ANY SHIFT IN SCALE LOCATION SHALL BE APPROVED BY THE OWNER WITH CHANGE IN ELEVATION TIE-INS VERIFIED BY THE CONTRACTOR.

**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



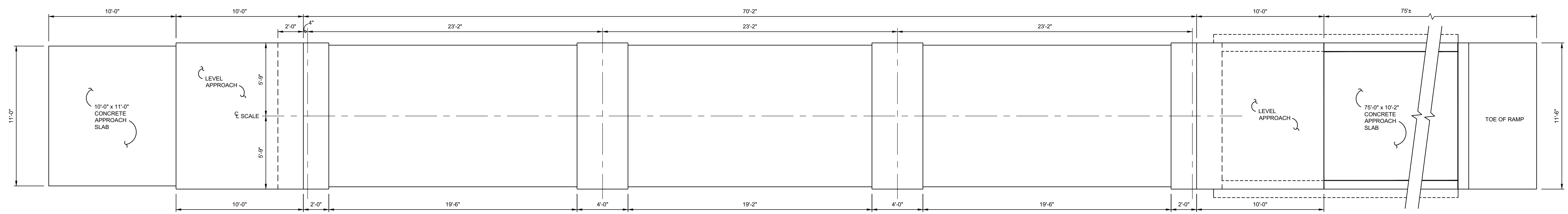
NO.	DATE	BY	DESCRIPTION

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

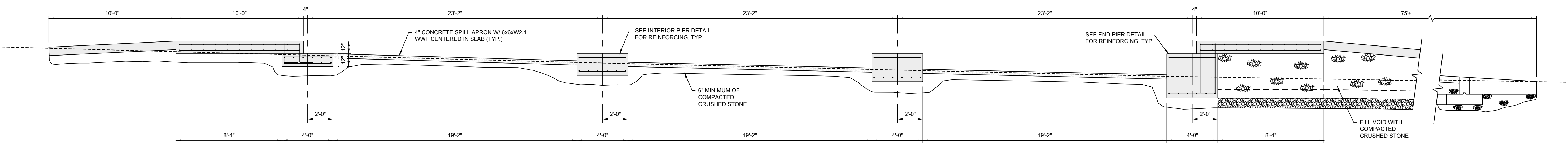
PROJECT **18-142**

DATE **4-17-19**

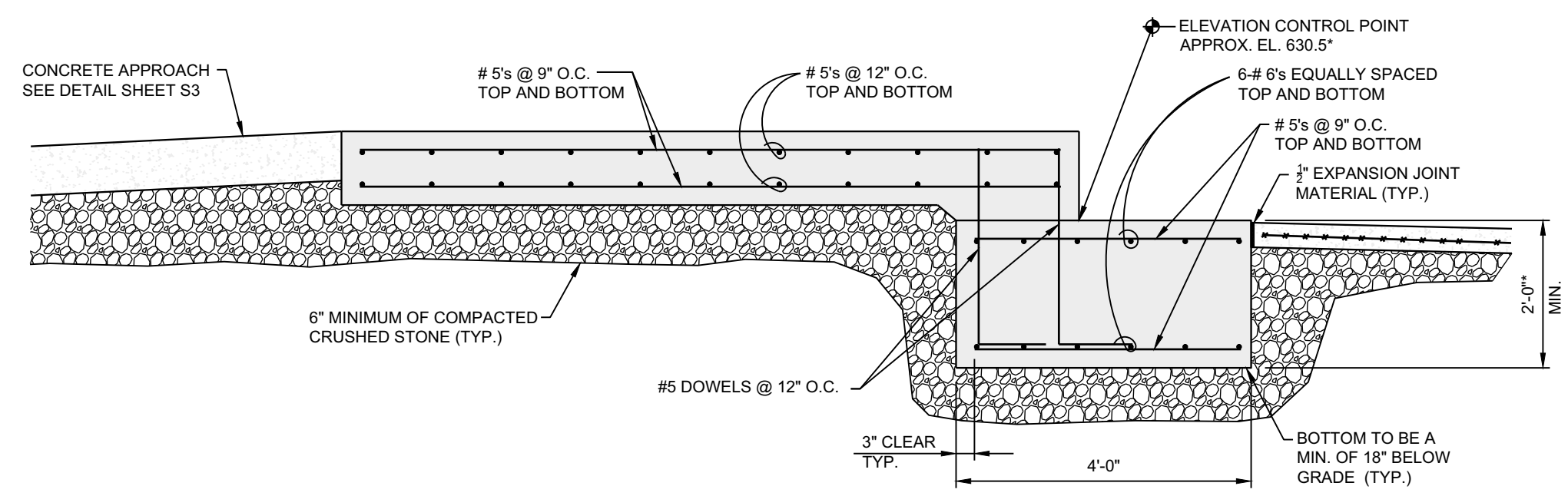
SHEET **S-2**



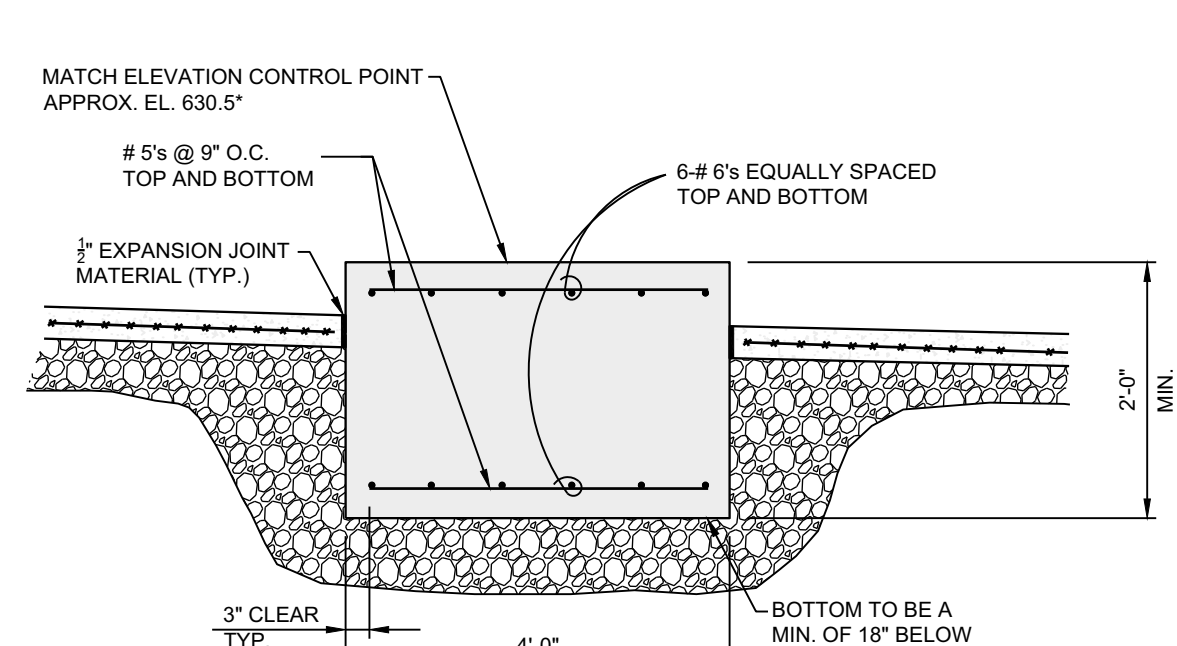
PLAN OF SCALE FOUNDATION



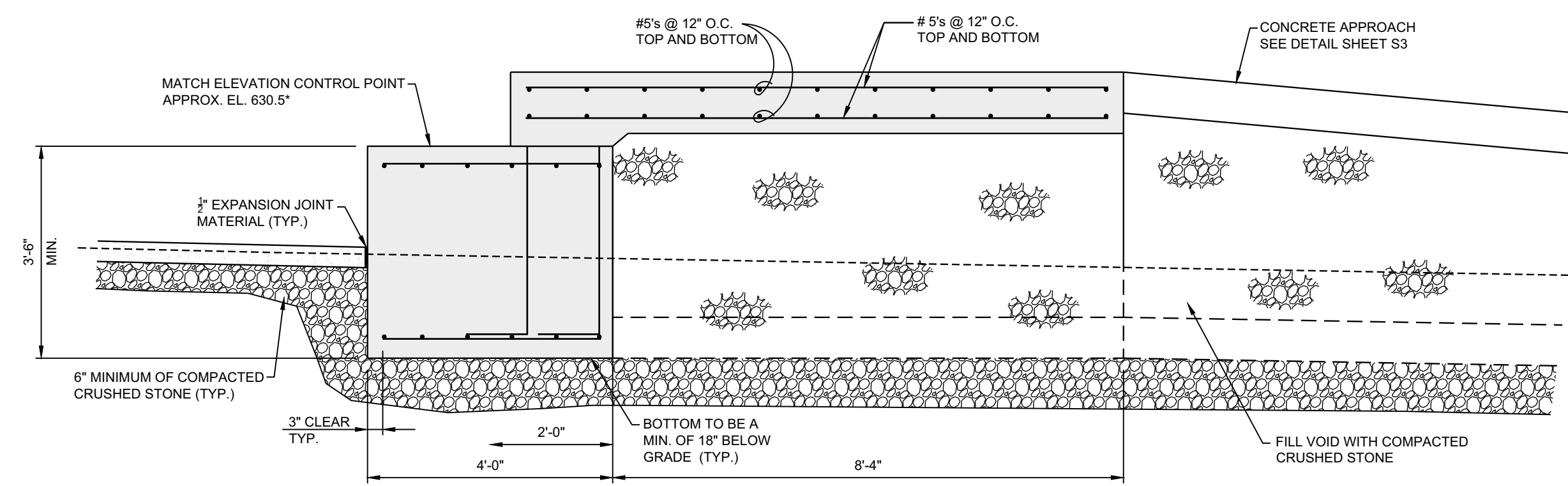
SECTION THRU SCALE FOUNDATION



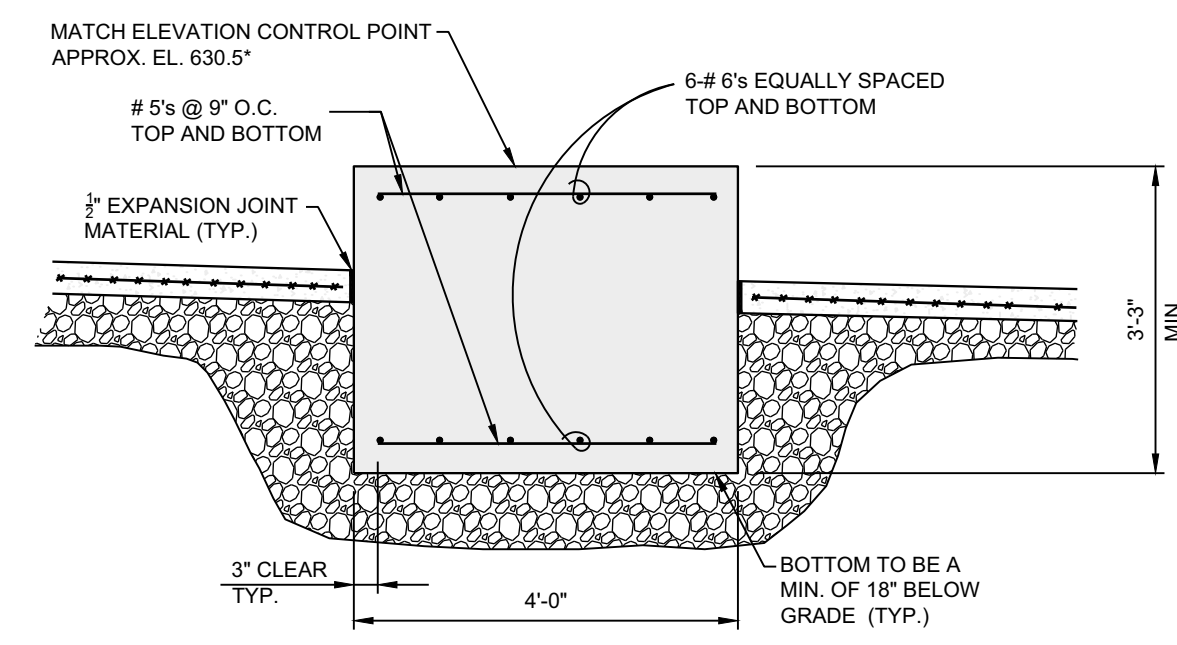
WEST END PIER DETAIL
SCALE: 1/2" = 1'-0"



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	

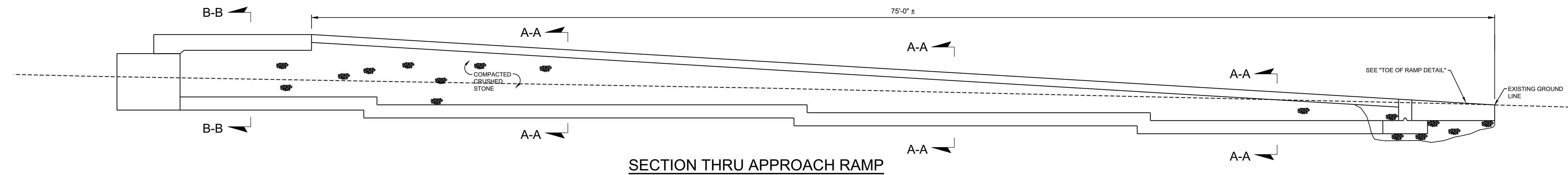
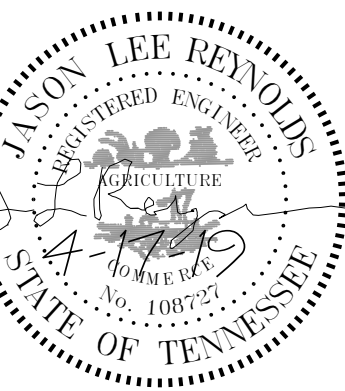
CRUSHED STONE = APPROX. 40 TONS

**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**

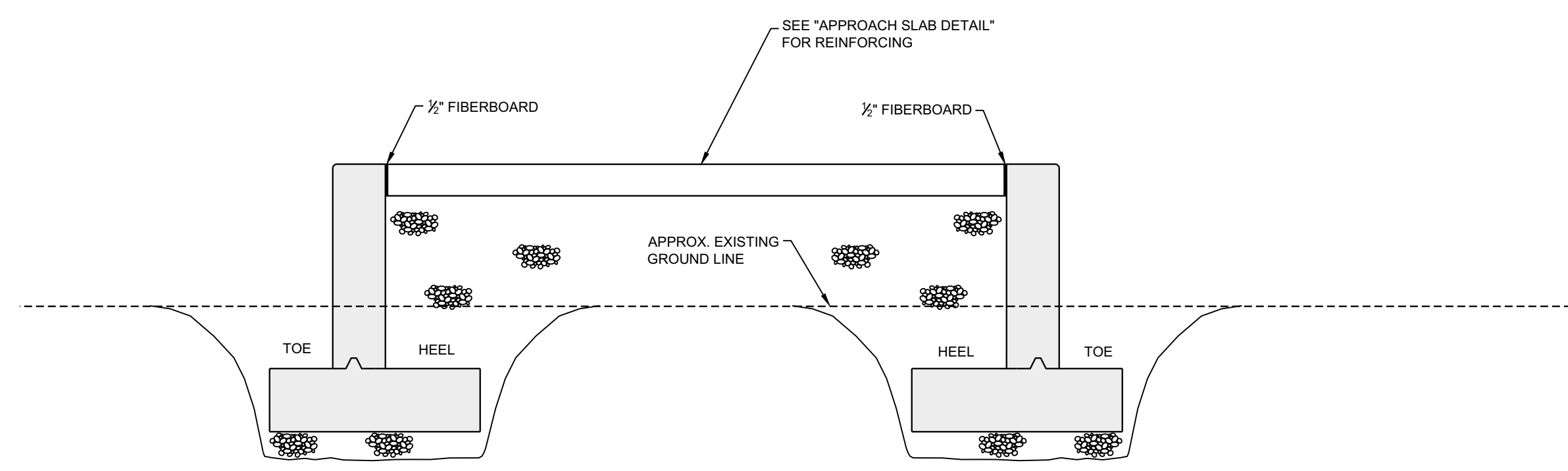




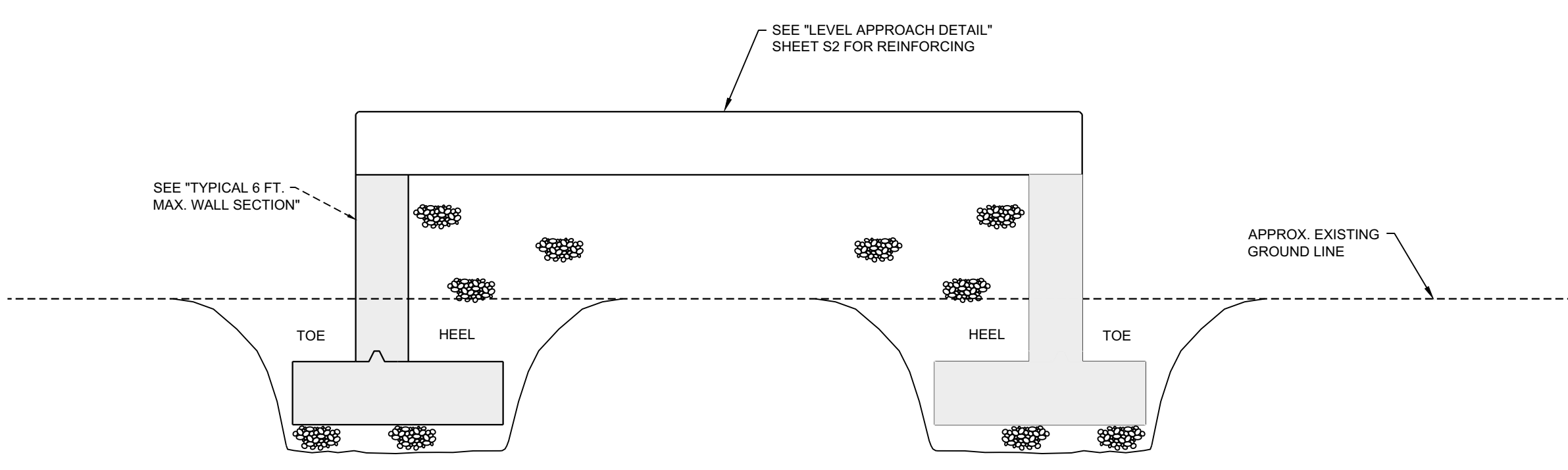
TRUCK SCALE SECTIONS
TRUCK SCALE SYSTEM UPGRADE
TRANSFER FACILITY
ROBERTSON COUNTY SOLID WASTE & RECYCLING
WEST COUNTY PARK RD.
SPRINGFIELD, TN 37172
ROBERTSON COUNTY



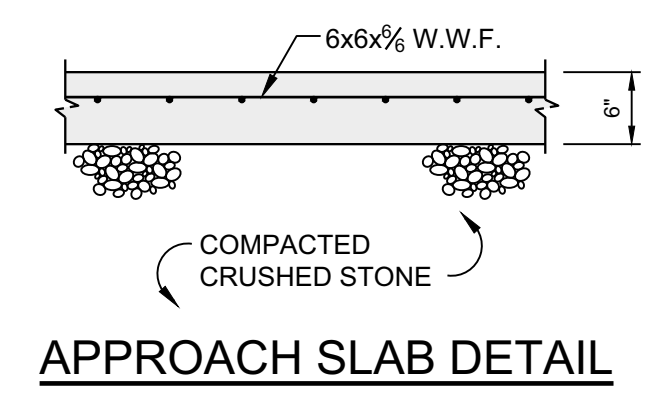
SECTION THRU APPROACH RAMP



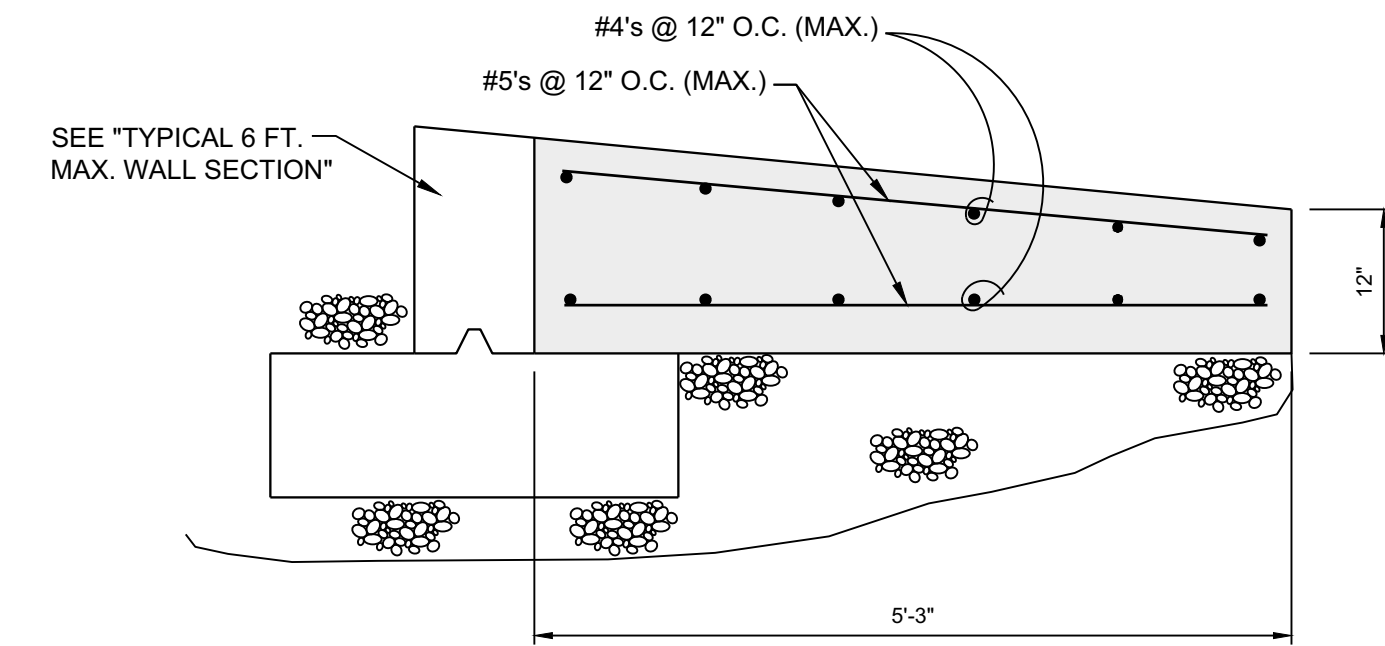
SECTION A-A



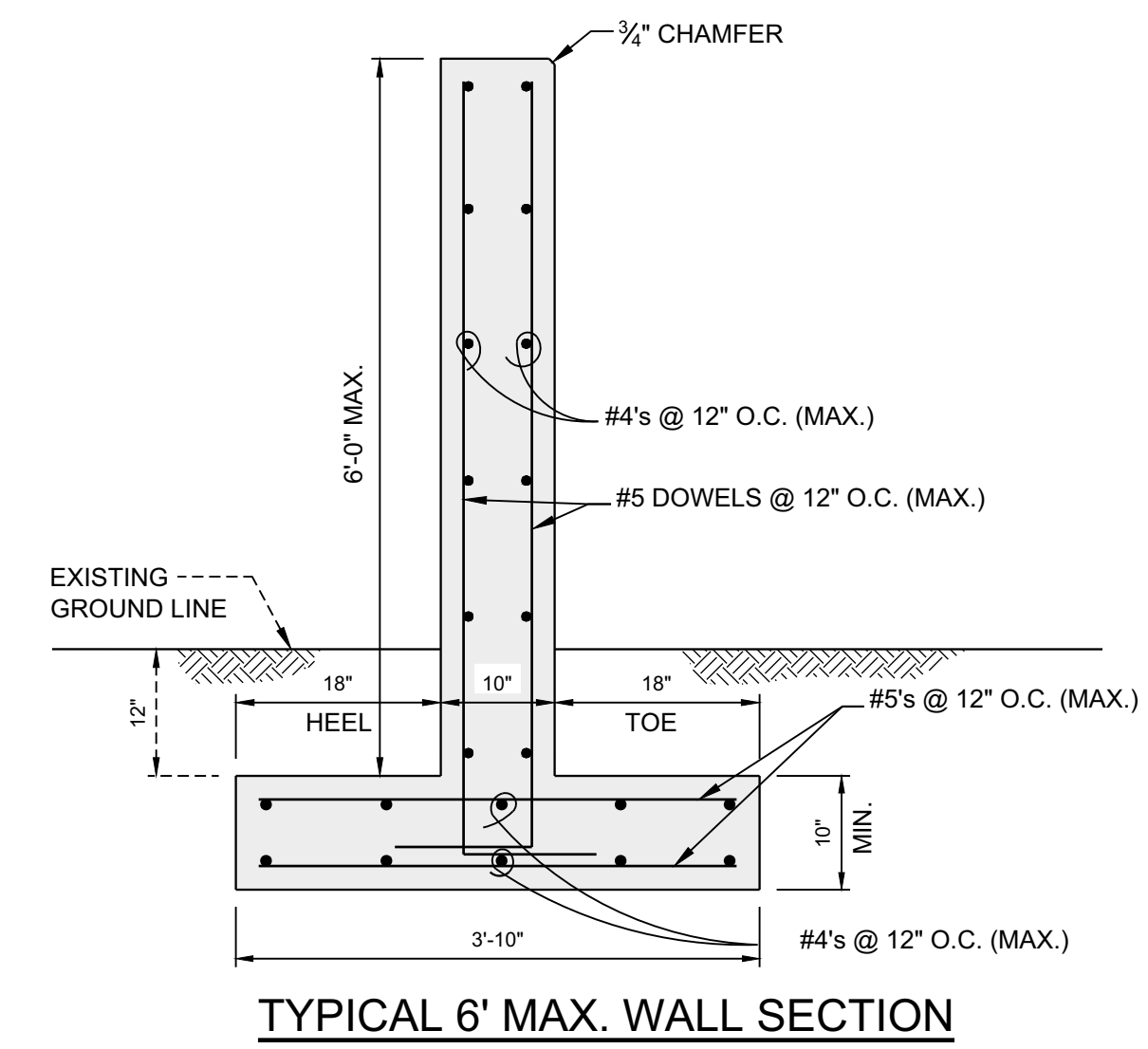
SECTION B-B



APPROACH SLAB DETAIL



TOE OF RAMP DETAIL



TYPICAL 6' MAX. WALL SECTION

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

